

WATER RECLAMATION PLANT NO. 4 NON-POTABLE WATER IMPROVEMENTS PROJECT

Draft Environmental Impact Report
State Clearinghouse No. 2023100315

Prepared for
Coachella Valley Water District

July 2025



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Appendices

Appendix NOP	NOP and Scoping Process
Appendix AQ/GHG/Energy	Air Quality and Greenhouse Gas Emissions Calculations
Appendix BIO	Biological Resources Technical Report
Appendix HYDRO-1	Modeling the Potential Effects of Flow Reductions from WRP 4 on Downstream Channel Hydrology and Riparian Vegetation
Appendix HYDRO-2	Applying the Salton Sea Accounting Model to the CVWD WRP 4 Recycled Water Project
Appendix TRIBAL	Tribal Cultural Resources Consultation

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Acronyms and Other Abbreviations

Abbreviation	Definition
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ACT	Advanced Clean Trucks
AFY	acre-feet per year
AGESS	AGESS, Inc.
AHPA	Archaeological and Historic Preservation Act
ALUCP	Airport Land Use Compatibility Plan
APE	Area of Potential Effects
AQMP	Air Quality Management Plans
ASCE	American Society of Civil Engineers
ASF	Age Sensitivity Factors
ASHRAE	American Society of Heating and Air-Conditioning Engineers
ATCM	Airborne Toxic Control Measure
AWMP	Agricultural Water Management Plans
BACT	Best Available Control Technology
BGS	Below ground surface
BMP	best management practices
BRTR	Biological Resources Technical Report
BSA	Biological Study Area
CAA	Clean Air Act
CAAP	Climate Action and Adaptation Plan
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
Cal-OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
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

Abbreviation	Definition
CBOD	carbonaceous biological oxygen demand
CBRA	Coastal Barriers Resources Act
CBRS	Chafee Coastal Barrier Resources System
CCC	California Coastal Commission
CCR	California Code of Regulations
CCUS	capture, utilization, and storage
CDF	California Department of Finance
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CDIR	California Department of Industrial Relations
CDR	carbon dioxide removal
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERP	Coachella Valley Community Emissions Reduction Plan
CESA	California Endangered Species Act
CFGF	California Fish and Game Code
CFR	Code of Federal Regulations
CFS	Cubic feet per second
CGS	California Geological Survey
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CI	compression ignition
CII	commercial, industrial, and institutional
CIP	capital improvement program
CNDDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNRA	California Natural Resources Agency
CO	Carbon monoxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPD	County of Riverside Planning Department
CTC	county transportation commissions
CUPA	Certified Unified Program Agency
CURE	Citizens United for Resources and the Environment, Inc.

Abbreviation	Definition
CVC	California Vehicle Code
CVCC	Coachella Valley Conservation Commission
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CVSC	Coachella Valley Stormwater Channel
CVWD	Coachella Valley Water District
CVWMP	2002 Coachella Valley Water Management Plan
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	decibels
dBA	A-weighted frequency response
DDW	California Division of Drinking Water
DHS	Department of Health Services
DNL	average noise level
DOC	Department of Conservation
DOT	U.S. Department of Transportation
DPH	California Department of Public Health
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWA	Desert Water Agency
DWR	California Department of Water Resources
ECP	Extraordinary Water Conservation Program
ECV	Eastern Coachella Valley
ECVAP	Eastern Coachella Valley Area Plan
EFH	Essential Fish Habitat
EIC	Eastern Information Center
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act of 2007
ESA	Endangered Species Act
ET	Evapotranspiration
FCEV	fuel cell electric vehicles
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FFPS	filter feed pump station
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Mapping

Abbreviation	Definition
FMMP	DOC Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
FY	fiscal year
GHG	greenhouse gas
GPCD	gallons per capita per day
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
GWh	gigawatt-hours
GWP	global warming potential
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HAP	hazardous air pollutants
HCP	Habitat Conservation Plan
HDPE	High-Density Polyethylene
HFC	hydrofluorocarbons
HMBP	Hazardous Materials Business Plan
HRA	health risk assessments
HSC	Health and Safety Code
HUD	Housing and Urban Development
IID	Imperial Irrigation District
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
ISGSA	Indio Subbasin Groundwater Sustainability Agencies
JPR	Joint Project Review
kWh	kilowatt-hour
LACM	Natural History Museum of Los Angeles County
LEV	Low-Emissions Vehicle
LOS	level of service
LRP	Long-Range Plan
MBTA	Migratory Bird Treaty Act
MCV	Manual of California Vegetation
MGD	million gallons per day
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program
MMTCO ₂ e	million metric tons of carbon dioxide equivalent

Abbreviation	Definition
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxics
MSHCP	Multi-Species Habitat Conservation Plan
MSWD	Mission Springs Water District
MW	megawatts
MWD	Metropolitan Water District of Southern California
MWh	megawatt-hours
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NDIR	Non-Dispersive Infrared Photometry
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOD	Notice of Determination
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OPR	Office of Planning and Research
PEIR	Program Environmental Impact Report
POU	publicly owned utilities
PMA	Project and Management Action
PPM	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PSD	Prevention of Significant Deterioration

Abbreviation	Definition
QSA	Quantification Settlement Agreement
RCDEH	Riverside County Department of Environmental Health
REL	Recommended Exposure Level
RFS	Renewable Fuel Standard
RMS	root mean square
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
RUWMP	Regional Urban Water Management Plan
RWQCB	Regional Water Quality Control Board
SAR	Second Assessment Report
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCH	Species Conservation Habitat
SCIA	System Conservation Implementation Agreement
SCS	Sustainable Communities Strategy
SDC	seismic design category
SDCWA	San Diego County Water Authority
SDWA	Safe Drinking Water Act
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SLF	Sacred Lands File
SMP	Sanitation Master Plan Update 2020
SOC	Statement of Overriding Considerations
SoCalGas	Southern California Gas Company
SPEIR	Subsequent Program Environmental Impact Report
SR	State Route
SRF	State Revolving Fund
SSAM	Salton Sea Accounting Model
SSC	species of special concern
SSMP	Salton Sea Management Program
SVP	Society of Vertebrate Paleontology
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan

Abbreviation	Definition
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Load
TSS	total suspended solids
TWA	Time-Weighted Average
USACE	United States Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UV	ultraviolet
UWMP	Urban Water Management Plan
VdB	Decibel notation
VMT	vehicle miles traveled
VOC	Volatile Organic Compounds
WDR	Waste Discharge Requirements
WEAP	Workers Environmental Awareness Program
WRO	Water Rights Order
WRP	water reclamation plants
WRP 4	Water Reclamation Plant No. 4
WRSC	Whitewater River Stormwater Channel
WWTP	wastewater treatment plants
ZEV	Zero-Emissions Vehicle

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EXECUTIVE SUMMARY

ES.1 Introduction and Background

The Coachella Valley Water District (CVWD), as the lead agency pursuant to the California Environmental Quality Act (CEQA), is proposing the Water Reclamation Plant No. 4 (WRP 4) Non-Potable Water Improvements Project (proposed project) in Thermal, California. The proposed project would involve upgrading treatment at WRP 4 to produce and distribute recycled water in the eastern Coachella Valley. The project would initially distribute 1 million gallons per day (MGD) of non-potable recycled water for irrigation, with planned expansion to 10 MGD.

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 2023100315.

CEQA Guidelines Section 15152(d) provides that “where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to the effects that were not analyzed as significant in the prior EIR, or that are susceptible to substantial reduction or avoidance.” To evaluate the proposed project in more detail, CVWD has decided to prepare a stand-alone EIR that tiers from the Sanitation Master Plan Update 2020 PEIR. This Draft EIR has been prepared to analyze the effects on the environment and augments the analysis included in the CVWD Sanitation Master Plan Update 2020 Final PEIR. The environmental analysis in this EIR is tiered from the Sanitation Master Plan Update 2020 PEIR (CVWD 2022) in accordance with Sections 15152 and 15168 of the State CEQA Guidelines. This document incorporates by reference the analysis in the Sanitation Master Plan Update 2020 and PEIR (CVWD 2022) and focuses on proposed project-specific issues.

This Draft EIR has also been prepared in accordance with the CEQA-Plus requirements of the U.S. Environmental Protection Agency (USEPA) to fulfill the requirement of potential federal funding partners to comply with the National Environmental Policy Act (NEPA). Potential federal funding partners could include the State Water Resources Control Board (SWRCB) through the State Revolving Fund (SRF) Loan Program or U.S. Bureau of Reclamation (USBR), both of which provide funding for construction of publicly-owned treatment facilities and water reclamation projects.

ES.2 Project Objectives

The proposed project is a component of CVWD’s *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan* (Indio Subbasin GSAs 2021) referred to here as the 2022 WMP. The 2022 WMP outlines plans for maintaining long-term water supply reliability in the Coachella Valley while maintaining compliance with the Sustainable Groundwater Management Act

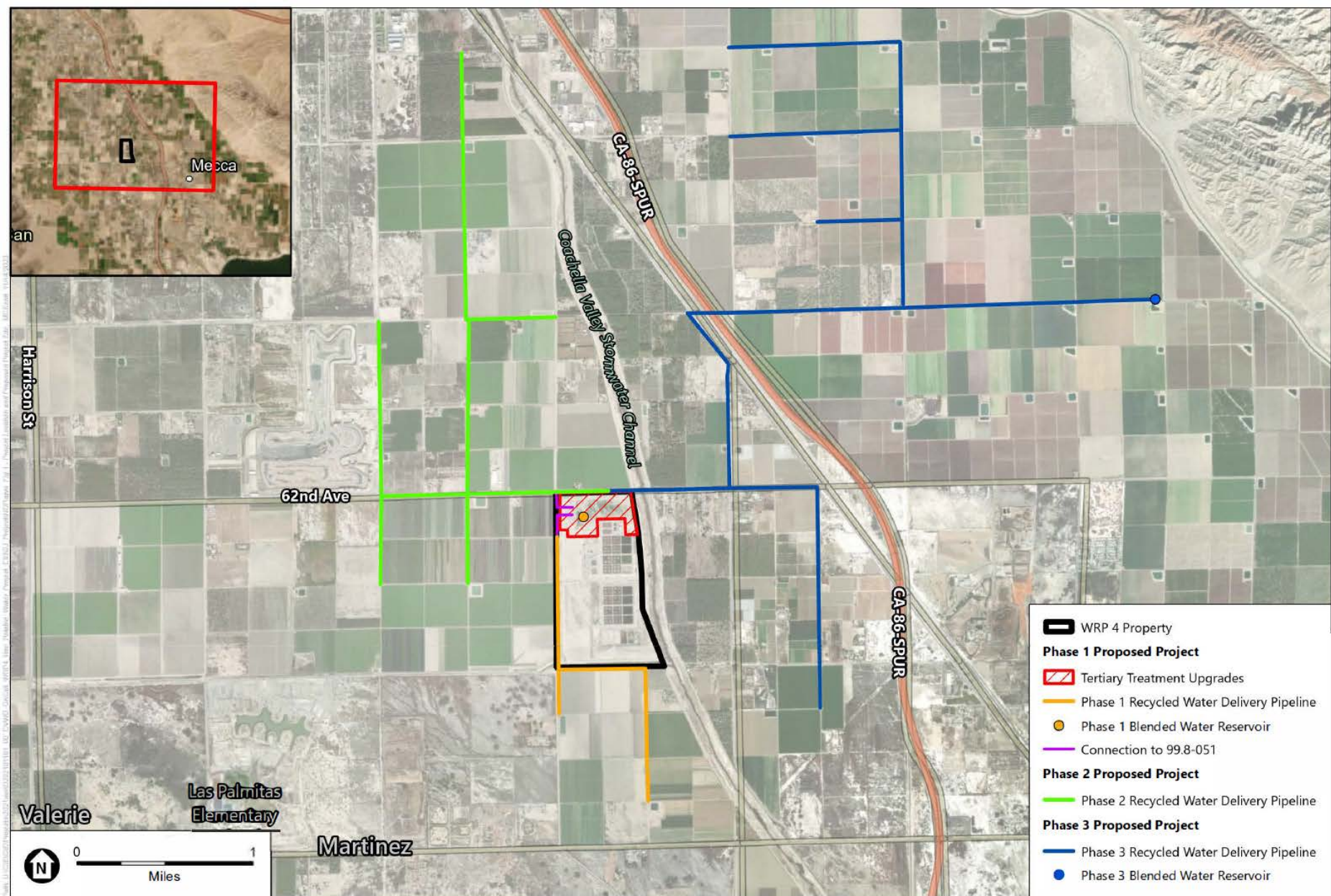
(SGMA) and meeting increased water demands stemming from anticipated growth identified by the Southern California Association of Governments (SCAG) and local general plans (SCAG 2020; Indio Subbasin GSAs 2021). As the reliability of Colorado River and State Water Project deliveries decline due to changing climatic and hydrologic conditions (USBR 2021; DWR 2023a), efforts to develop drought-resilient local supplies become increasingly critical. By increasing the volume of recycled water in its portfolio, the region can reduce reliance on imported water sources to maintain stable groundwater levels and enhance resilience during prolonged droughts. Identified in the 2022 WMP as Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery (Indio Subbasin GSAs 2021), the proposed project is part of a broader, programmatic suite of projects and actions designed to both meet future water demands and achieve SGMA's sustainability goals, and supports California's objectives for expanding recycled water use (DWR 2023b). The key objectives of the proposed project are to:

- Be consistent with the *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan*, which has the following objectives: meet current and future water demands, avoid chronic groundwater overdraft, and reduce vulnerability to climate change and drought impacts while complying with the requirements of SGMA;
- Support Lower Colorado River Basin State efforts to provide Colorado River water conservation in a timely manner to address the Colorado River water supply shortages;
- Provide an alternate water supply for local irrigation that is not local groundwater or imported Colorado River water;
- Upgrade recycled water treatment at WRP 4 and conveyance facilities to serve agricultural users as well as other landscape irrigation customers in the CVWD service area;
- Optimize use of recycled water for beneficial uses in an environmentally sound and cost efficient manner;
- Reduce pollutant discharges to receiving waters.

ES.3 Project Description

WRP 4 is CVWD's second largest wastewater reclamation plant in terms of treatment capacity and provides collection service to approximately 63,000 people in the cities of La Quinta, Mecca, Palm Desert, and Thousand Palms. WRP 4 is located southeast of Avenue 62 on Fillmore Street in Thermal, California, an unincorporated area of Riverside County. The property is bordered by Avenue 62 on the north, Avenue 64 on the south, Fillmore Street on the west, and by the Coachella Valley Stormwater Channel (CVSC) on the east. The location of the project and the proposed Phase 1, 2 and 3 tertiary treatment system and distribution pipelines are depicted in **Figure ES-1**.

WRP 4 has a design capacity of 9.9 MGD and currently treats an average daily flow of approximately 5.7 MGD, but is not currently producing or delivering recycled water. The proposed project would construct tertiary treatment facilities within the existing WRP 4 plant site to enable production of up to 10 MGD of non-potable recycled water for irrigation. CVWD has developed three phases to achieve 10 MGD production and distribution.



SOURCE: ESA, 2022

WRP 4 Project

Figure ES-1
Project Location and Proposed Project Site

The proposed project will be implemented in three phases as further described below. The project implementation schedule provided below is subject to the availability of grant funds and the approval of a Wastewater Change Petition.

1. The Phase 1 project would design and construct a 1 MGD tertiary treatment facility and a distribution pipeline to deliver a blend of recycled water and canal water to three large agricultural customers south of WRP 4. It is currently at the 60% design stage, and CVWD anticipates completing the final design in early 2026, followed by bidding for construction in spring 2026, with an estimated construction completion by the end of the year 2027.
2. The Phase 2 project would expand the tertiary treatment capacity to 2.5 MGD and construct additional distribution pipelines to connect new customers in the immediate vicinity of WRP 4, and will be carried out over a three-year period from 2028 through 2030.
3. CVWD will monitor the recycled water consumption and demand following Phase 2 completion, to determine the feasibility of connecting new recycled water users. It is anticipated that Phase 3 project will be constructed between 2031 and 2045.

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*.

ES.4.1 No Project Alternative

According to Section §15126.6(e) of the CEQA Guidelines, discussion of the No Project Alternative must include a description of existing conditions and reasonably foreseeable future conditions that would exist if the project were not approved. Under the No Project Alternative, CVWD would not implement improvements to produce recycled water at the WRP 4 facility. None of the treatment upgrades, pipelines or storage facilities would be built or operated. Treated effluent from WRP 4 would continue to be discharged to the CVSC at the rate of 5.7 MGD. Agricultural and landscape irrigation customers would continue to rely on groundwater and imported Colorado River water instead of recycled water. Under the No Project Alternative, CVWD would not be able to maximize the use of recycled water as planned in the 2022 WMP since Project and Management Action 18 would not be implemented.

The No Project Alternative would meet none of the project objectives. Implementation of the No Project Alternative would not provide any of the benefits of an increased water supply. Irrigation demands in the local area would continue to be met entirely with groundwater or Colorado River supplies. The No Project Alternative would not be consistent with the 2022 WMP to maintain groundwater sustainability and water supply resiliency since Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery would not be implemented. Nor would the No Project Alternative support the Lower Basin efforts to increase conservation of Colorado River water. The No Project Alternative would not provide

an alternative water supply or upgrade treatment to serve agriculture customers in the area compared to the proposed project, nor would it optimize recycled water for beneficial uses or reduce pollutant loading in the CVSC.

ES.4.2 Phase I Only Alternative

Under the Phase 1 Only Alternative, CVWD would implement only Phase 1 of the proposed project, recycling 1 MGD of existing flows. This alternative would include construction and operation of infrastructure at WRP 4 capable of treating and distributing 1 MGD recycled. CVWD would repurpose an existing irrigation pipeline to deliver a blend of recycled water and canal water¹ to three local customers located south of WRP 4. Approximately 4.7 MGD (annual average) would continue to be discharged to the CVSC (5.7 MGD current discharge minus 1 MGD).

The Phase 1 Only Alternative would meet the project objectives, but to a lesser degree than the proposed project. The Phase 1 Only Alternative would be consistent with the 2022 WMP in that some water recycling would occur that would reduce demands from the local groundwater table, but at only about 20 percent of the proposed project's recycled water production. Nonetheless, the Alternative would support groundwater sustainability and water supply resiliency since Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery would be implemented at a reduced capacity. The Phase 1 Only Alternative would support the Lower Basin efforts to increase conservation of Colorado River water and would produce an alternative water supply to serve agriculture customers in the area, but to a lesser degree than the proposed project. The Phase 1 Only Alternative would produce recycled water for beneficial uses, but would not optimize the resource compared to the proposed project. Finally, the Phase 1 Only Alternative would reduce pollutant loading in the CVSC, but to a lesser degree than the proposed project.

ES.4.3 Phase 1 + 2 Only Alternative

Under the Phase 1 + 2 Only Alternative, CVWD would implement Phases 1 and 2 of the proposed project, initially recycling 1 MGD as part of Phase 1 and then an additional 1.5 MGD for Phase 2, for a total of 2.5 MGD of existing flows. This alternative would phase in construction and operation of infrastructure at WRP 4 capable of distributing the 2.5 MGD recycled water, approximately 2,800 acre-feet per year (AFY). Initially with Phase 1, CVWD would repurpose an existing irrigation pipeline to deliver a blend of recycled water and canal water² to three local customers located south of WRP 4. New distribution pipelines would be constructed to deliver 1.5 MGD recycled water for Phase 2. Approximately 3.2 MGD (annual average) would continue to be discharged to the CVSC (5.7 MGD current discharge minus 2.5 MGD).

The Phase 1 + 2 Only Alternative would meet the project objectives, but to a lesser degree than the proposed project. The Phase 1 + 2 Only Alternative would be consistent with the 2022 WMP in that some water recycling would occur that would reduce demands from the local groundwater table, but at only about 45 percent of the proposed project's recycled water production. Nonetheless, the Alternative would

¹ Canal water refers to imported Colorado River water delivered to the Coachella Valley via the Coachella Canal, a 122-mile aqueduct connecting to the All American Canal.

² Canal water refers to imported Colorado River water delivered to the Coachella Valley via the Coachella Canal, a 122-mile aqueduct connecting to the All American Canal.

support groundwater sustainability and water supply resiliency since Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery would be implemented at a reduced capacity. The Phase 1 + 2 Only Alternative would support the Lower Basin efforts to increase conservation of Colorado River water and would produce an alternative water supply to serve agriculture customers in the area, but to a lesser degree than the proposed project. The Phase 1 + 2 Only Alternative would produce recycled water for beneficial uses, but would not optimize the resource compared to the proposed project. Finally, the Phase 1 + 2 Only Alternative would reduce pollutant loading in the CVSC, but to a lesser degree than the proposed project.

ES.4.4 Growth Flows Since 2016 Alternative

CVWD first submitted the petition to the State Water Resources Control Board (SWRCB) for a change in the place of discharge and use of wastewater from WRP 4 in 2016. At that time, discharges from WRP 4 averaged 4.7 MGD (CVWD 2020; Table 5). Under the Growth Flows Since 2016 Alternative, CVWD would build new treatment facilities to recycle flows in excess of the 4.7 MGD annual average discharged in 2016. The Growth Flows Since 2016 Alternative would recycle 1 MGD (5.7 MGD current discharge minus 4.7 MGD 2016 annual average) and would also treat future growth flows over time. Initially, CVWD would build 1 MGD tertiary treatment capacity and repurpose an existing irrigation pipeline to deliver a blend of recycled water and canal water to three local customers located south of WRP 4. The tertiary treatment capacity and distribution system would be expanded over time to recycle and distribute future growth flows. Approximately 4.7 MGD (annual average) would continue to be discharged to the CVSC.

The Growth Flows Since 2016 Alternative would meet some of project objectives, but to a lesser degree than the proposed project. The Growth Flows Since 2016 Alternative would be consistent with the 2022 WMP in that some water recycling would occur that would reduce demands from the local groundwater table, but less than proposed project. Nonetheless, the Alternative would support groundwater sustainability and water supply resiliency since Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery would be implemented at a reduced capacity. The Growth Flows Since 2016 Alternative would support the Lower Basin efforts to increase conservation of Colorado River water and would produce an alternative water supply to serve agriculture users in the area, but to a lesser degree than the proposed project. The Growth Flows Since 2016 Alternative would produce recycled water, but would not optimize the resource compared to the proposed project. Finally, the Growth Flows Since 2016 Alternative would reduce pollutant loading in the CVSC, but to a lesser degree than the proposed project.

ES.4.5 Future Growth Flows Only Alternative

Under the Future Growth Flows Only Alternative, CVWD would build new treatment facilities to recycle future flows in excess of the 5.7 MGD annual average currently being discharged. The Growth Flows Only Alternative assumes that all future growth flows above 5.7 MGD would be recycled. CVWD would construct water conveyance infrastructure to convey treated water similar to Phase 1 of the proposed project. The tertiary treatment capacity and distribution system would be expanded over time to recycle and distribute additional growth flows. Approximately 5.7 MGD (annual average) would continue to be discharged to the CVSC.

The Future Growth Flows Only Alternative would meet some of project objectives, but to a lesser degree than the proposed project. The Future Growth Flows Only Alternative would be consistent with the 2022 WMP in that some water recycling would occur that would reduce demands from the local groundwater table, but less than the proposed project. Nonetheless, the Alternative would support groundwater sustainability and water supply resiliency since Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery would be implemented at a reduced capacity. The Future Growth Flows Only Alternative would not support the Lower Basin efforts to increase conservation of Colorado River water in a timely manner. While the Future Growth Flows Only Alternative could result in the ability to produce an alternative water supply to serve agriculture users in the area, the amount and timing is uncertain. The Future Growth Flows Only Alternative could produce recycled water in the future if there is additional growth in the service area of WRP 4, and would not optimize available resources compared to the proposed project; nor would it reduce pollutant loading in the CVSC.

ES.4.6 Alternatives Considered but Rejected from Further Consideration

An EIR should identify any alternatives considered but rejected as infeasible by the lead agency during the scoping process and briefly explain the reasons for the exclusion (State CEQA Guidelines Section 15126.6(c)). Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid any significant environmental effects.

Conservation Only Alternative

Under the Conservation Only Alternative, similar to the Future Growth Flows Only Alternative, CVWD would not immediately implement improvements to produce recycled water at the WRP 4 facility using current discharges to the CVSC.

CVWD is committed to addressing groundwater overdraft in the Coachella Valley while ensuring reliable and sustainable water supplies for its diverse user base. Historically, the region relied heavily on groundwater, resulting in significant overdraft conditions. In response, CVWD has implemented strategies to provide alternative water supplies, including recycled water, to reduce reliance on groundwater pumping.

In evaluating potential alternatives to the proposed recycled water project, CVWD considered a conservation-focused alternative. However, after thorough analysis, this alternative was dismissed from detailed consideration in this Draft EIR due to its inability to achieve the project's objectives and its potential unintended consequences. Outlined below is a rationale for dismissing the conservation alternative, with a specific focus on the agricultural, golf, and municipal sectors, which are the largest water user sectors in the Coachella Valley.

Agriculture and golf course irrigation are major components of water use in the Coachella Valley, with both sectors holding overlying groundwater rights under California's groundwater rights structure. These rights grant users the legal ability to pump groundwater for reasonable and beneficial uses, particularly in the absence of adequate surface or alternative water supplies. CVWD's strategy of supplementing groundwater with alternative water supplies including recycled water has been critical in reducing groundwater pumping in the region. Reducing these alternative supplies as part of a conservation-focused

alternative would likely result in agricultural and golf users reverting to increased groundwater pumping. This shift would undermine decades of progress made in stabilizing the aquifer and preventing the reemergence of overdraft conditions.

CVWD already promotes conservation among agricultural and golf irrigators through various voluntary programs, as outlined in the 2022 WMP. These programs build on historical efforts to reduce water use, like the 2004 Extraordinary Water Conservation Program (ECP) which promoted the adoption of efficient irrigation practices and technologies for agriculture to meet the requirements of the 2003 Colorado River Water Delivery Agreement with California's contractors. More recent conservation programs provide financial incentives to remove turf from golf courses and technical support to encourage water-use efficiency, such as precision irrigation systems, soil moisture monitoring, and other best management practices (BMPs) across all water use sectors. While these programs have helped to successfully reduce water usage, their voluntary nature limits their scalability and enforceability. As such, they do not provide a sound or implementable basis for meeting the recycled water project's objectives of ensuring a sustainable and predictable water supply for the region.

Incentivizing agricultural reductions in water use, through conservation or land fallowing, also raises significant environmental and regional concerns. Fallowing agricultural land would reduce irrigation return flows that currently contribute to inflows into the Salton Sea. Such reductions could exacerbate the Salton Sea's ongoing environmental challenges, including habitat loss, increased dust emissions from exposed lakebed, and impacts on air quality and public health. There is wide acknowledgment that such measures can negatively impact the Salton Sea by diminishing the agricultural return flows that sustain it.

While CVWD has greater control over urban conservation, there are constraints to using additional conservation from this sector as a feasible alternative for achieving the project's objectives. Urban water demand within the CVWD reached its peak in fiscal year (FY) 2006-07, with a total usage of approximately 132,000 acre-feet (CVWD 2007). Since then, through comprehensive conservation efforts, tiered water rates, and the implementation of other efficient water management practices, there has been a significant reduction in urban water demand. By FY 2023/24, urban water use had decreased to about 85,000 acre-feet, reflecting a substantial decline over the 17-year period despite the addition of approximately 10,000 active accounts in CVWD's service area (CVWD 2007, 2024). This reduction underscores the effectiveness of CVWD's initiatives aimed at promoting water conservation and ensuring sustainable water resource management in the Coachella Valley. As a result, CVWD bested the targets established by the Water Conservation Act of 2009 (SB X7-7) of reducing urban water use by 20 percent by the year 2020, reducing gallons per capita per day by 45 percent (CVWD 2021, Chapter 4).

Following the historic drought of 2012-2016, the State of California enacted legislation aimed at institutionalizing water conservation practices across all sectors. The framework, known as Making Conservation a Way of Life, includes long-term water use efficiency standards and improved drought resilience measures for urban water suppliers. Under this framework, CVWD and other urban water suppliers must meet specific water efficiency targets based on residential per capita use, outdoor irrigation efficiency, and system water loss standards. While these regulations are expected to result in reductions in urban water demand in California over the coming decades, not all urban suppliers will see significant reductions from meeting their water use targets. For example, the estimates for CVWD provided by the SWRCB indicate that initially CVWD will meet its water use objective requiring no reduction in water

use and will only need to reduce current municipal use by approximately 12 percent to meet the total reductions required by the 2040 standards (SWRCB 2024). While the 2022 WMP, did not fully consider the impacts of Making Conservation a Way of Life because the regulation had not been finalized, it did incorporate assumptions about water savings from increased efficiency and conservation programs (Indio Subbasin GSAs 2021).

In addition to Making Conservation a Way of Life, California has recently enacted new legislation banning the use of potable water for irrigating non-functional turf on commercial, industrial, and institutional (CII) settings. Assembly Bill (AB) 1572 passed the State Senate on September 12, 2023 and takes effect in stages between 2027 and 2031. This legislation defines non-functional turf as areas of grass that are purely ornamental (e.g., turf located on road medians and outside businesses) and serve no recreational, community, or other functional purpose (e.g., sports fields, parks, picnic areas, and cemeteries). This legislation does not address any residential turf and exempts areas irrigated with recycled water. Since many large CII irrigators in the Coachella Valley use private wells or alternative sources like recycled water already provided to reduce groundwater pumping, AB 1572 will not have the same impact within CVWD's service area that is expected in regions where irrigation demands are met primarily or exclusively through a municipal system.

While conservation measures are an integral part of CVWD's long-term water management strategy, they are insufficient and speculative as an alternative to the proposed project. Conservation efforts in the agricultural, golf, and urban sectors have already achieved significant reductions in water use over the past decades. However, these measures are primarily voluntary in nature, and lack the reliability, scalability, and enforceability to provide the certainty or volume of water savings needed to meet demand growth presented in the 2022 WMP. Furthermore, a conservation-focused alternative would fail to address key project objectives, such as ensuring resilience in the face of reduced reliability of imported water supplies with climate change. For these reasons, the conservation alternative does not present a feasible or implementable solution and is dismissed from detailed consideration in this Draft EIR.

ES.4.7 Environmentally Superior Alternative

The No Project Alternative would avoid some of the environmental impacts of the proposed project but would result in greater impacts to some resources such as hydrology (groundwater resources and water quality) and agricultural resources and would not meet any of the proposed project objectives. CEQA requires that an EIR identify the environmentally superior alternative of a project other than the No Project Alternative (CEQA Guidelines Section 15126.6(e)(2)). As described in Chapter 5, *Alternatives Analysis*, the proposed project would not result in any significant and unavoidable impacts. Nonetheless, project alternatives were identified to lessen impacts associated with construction and operation of the recycled water system.

Each of the Alternatives would result in similar construction and operational impacts as the proposed project with only minor differences. The Phase 1 Only Alternative would require the least amount of construction. All mitigation measures identified for the proposed project would similarly be needed for each of the Alternatives to minimize effects. Since the Phase 1 Only Alternative would reduce discharges by only 1 MGD compared to existing conditions, and would allow growth flows to continue to the Salton Sea, it would result in a lesser potential for exposure of dust-emitting lakebed. The Future Growth Flows Only Alternative would result in the lowest potential for exposure of lakebed since it would avoid

reducing discharges; however, it would result in greater impacts to water quality in the CVSC and would not support conservation efforts in the Colorado River with their associated environmental benefits. Although the proposed project would result in the greatest benefits to water quality in the CVSC, Colorado River conservation efforts, and groundwater sustainability, the Phase 1 Only Alternative would be considered the environmentally superior alternative due to its smaller contribution to exposed lakebed, while resulting in the benefits of the proposed project but to a lesser degree.

ES.5 Areas of Controversy

Pursuant to CEQA Guidelines Section 15123(b)(2), a lead agency is required to include areas of controversy raised by agencies and the public in the EIR summary. Areas of controversy have been identified for the proposed project, based on comments made during the public review period in response to information published in the Notice of Preparation (NOP), as well as through the Water Code section 1211 Wastewater Change Petition process.

ES.5.1 Notice of Preparation

During the NOP public review period, concerns were raised regarding potential impacts to the Salton Sea and surrounding areas from reduced discharge of the project on biology, air quality/greenhouse gas emissions, public health, and water quality. All comments received on the NOP are included in **Appendix NOP** to this Draft EIR.

ES.5.2 Water Code Section 1211 Wastewater Change Petition

CVWD submitted a Wastewater Change Petition request (WW0093) pursuant to Water Code section 1211 to the State Water Resources Control Board (SWRCB) in 2016 to change the purpose and place of use of the WRP 4 discharge to accommodate beneficial reuse. The Change Petition was a part of CVWD's ongoing effort to implement the 2002 Coachella Valley Water Management Plan (CVWMP) and the 2010 CVWMP Update, a comprehensive and integrated plan to sustainably manage groundwater through water conservation, development of additional water sources, including wastewater reuse from WRP 4, source substitution, and groundwater replenishment. CVWD's Change Petition referenced the environmental review that had occurred in the 2002 CVWMP PEIR and the 2010 CVWMP Update Subsequent PEIR. The SWRCB notified CVWD that they had received several protests to the Change Petition from the California Department of Fish and Wildlife (CDFW); Imperial Irrigation District (IID); Citizens United for Resources and the Environment, Inc. (CURE); Audubon California, Defenders of Wildlife, Environmental Defense Fund, Pacific Institute and Sierra Club California (collectively, NGO Protestants); AGESS, Inc. (AGESS); West Shores Salton Sea; and Twenty-Nine Palms Band of Mission Indians. The protests of Twenty-Nine Palms Band of Mission Indians and AGESS have been withdrawn. The issues raised in the protests fall into four general categories: 1) impacts to other legal users of water; 2) impacts to habitat, fish and wildlife resulting from reduced flows to the Salton Sea; 3) impacts to habitat, fish and wildlife resulting from reduced flows in the CVSC; and 4) impacts to air quality resulting from exposed playa and increased dust.

CVWD prepared responses to these issues in 2017. In response to issue one, CVWD noted that since no known water rights holders are located between WRP 4 and the Salton Sea, no legal users of water would be injured by the project. In response to issue two, CVWD noted that overall flows to the Salton Sea from

the Coachella Valley are expected to increase in the future as result of the projects that will be implemented pursuant to the 2022 WMP approved by the Department of Water Resources. The increased flows would offset the proposed reduction in WRP 4 wastewater discharges. In response to issue three, CVWD prepared additional analysis of the potential impacts from the project on the stretch of the CVSC immediately downstream of WRP 4. In response to issue four, CVWD noted that the project is not expected to result in a net decrease in flows to the Salton Sea, due to the projects being implemented pursuant to the Indio Subbasin Alternative Plan. Therefore, the project will not cause a lowering of Salton Sea level and will not increase impacts on air quality or human health as a result.

CVWD has prepared this project-specific CEQA document for the WRP 4 Water Recycling Project to evaluate the issues raised by the protestors, conduct technical studies to quantify impacts, and provide project-specific impact analysis, as recommended by the protestors.

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 through 6 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. The proposed project would not result in any significant and unavoidable impacts as documented in the analyses provided in Chapters 3 through 6 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 CVWD, 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: Aesthetics; Agriculture; Air Quality and Greenhouse Gas Emissions; Biological Resources; Cultural Resources; Energy; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use; Noise; Transportation; and Tribal Cultural Resources. This chapter also summarizes environmental topics for which no significant impact would occur.
- **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, CEQA Plus Considerations.** This chapter discusses the compliance with the CEQA-Plus requirements and regulations to fulfill the requirement of potential federal funding partners to comply with NEPA.
- **Chapter 7, 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 NOP**), as well as technical studies that support the impact analyses, such as Air Quality and Greenhouse Gas Emissions Calculations (**Appendix AQ/GHG/Energy**), Biological Resources Technical Report (**Appendix BIO**), Water Budget (**Appendix HYDRO-1**), Applying the Salton Sea Accounting Model to the CVWD WRP 4 Recycled Water Project (**Appendix HYDRO-2**), and the Tribal Cultural Resources Consultation (**Appendix TRIBAL**).

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U.S. Bureau of Reclamation (USBR), 2021. *Colorado River Basin Climate and Hydrology: State of the Science Report*.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance after Mitigation
Aesthetics		
3.1-1: Would the proposed project have a substantial adverse effect on a scenic vista?	None Required	Less than Significant Impact
3.1-2: Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	None Required	No Impact
3.1-3: Would the proposed project, in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	None Required	No Impact
3.1-4: Would the proposed project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	None Required	No Impact
3.1-5: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to aesthetics resources?	None Required	Less than Significant Impact
Agriculture		
3.2-1: Would the proposed project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	None Required	Less than Significant Impact
3.2-2: Would the proposed project conflict with existing zoning for agricultural use, or a Williamson Act contract?	None Required	Less than Significant Impact
3.2-3: Would the proposed project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	None Required	No Impact
3.2-4: Would the proposed project result in the loss of forest land or conversion of forest land to non-forest use?	None Required	No Impact

Impacts	Mitigation Measures	Significance after Mitigation
3.2-5: Would the proposed project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	None Required	Less than Significant Impact
3.2-6: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to agriculture and forestry resources?	None Required	Less than Significant Impact
3.3-1: Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?	None Required	Less than Significant Impact
3.3-2: Would the proposed project 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
3.3-3: Would the proposed project expose sensitive receptors to substantial pollutant concentrations?	Mitigation Measure AQ-1: Valley Fever. During heavy grading where the top 12 inches of soil would be disturbed in locations with dry, alkaline, sandy soils that have been undisturbed, construction contractors will be required to comply with the following measures to reduce potential Valley Fever impacts: Worker training will be provided to all workers focusing on Valley Fever and dust suppression practices to minimize exposure risk, including site watering protocols. The Contractor shall follow safe work practices in accordance with Cal-OSHA regulations. Construction contractors shall maintain a record of training and listing of safe practices implemented. Construction contractor shall monitor Valley Fever safeguards and public notices put forth by the Riverside County Department of Environmental Health, SCAQMD, and other applicable entities, to inform and protect construction crews appropriately in the event of a local outbreak. Contractor shall follow the local agency and Cal-OSHA guidelines for construction activities in the event of a local outbreak.	Less than Significant Impact with Mitigation
3.3-4: Would the proposed project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	None Required	Less than Significant Impact
3.3-5: Would the proposed project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	None Required	Less than Significant Impact

Impacts	Mitigation Measures	Significance after Mitigation
3.3-6: Would the proposed project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	None Required	Less than Significant Impact
3.3-7: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to air quality?	Implement Mitigation Measure AQ-1	Less than Significant Impact with Mitigation
3.3-8: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to greenhouse gas emissions?	None Required	Less than Significant Impact
Biological Resources		
3.4-1: Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?	BIO-1: Nesting Birds. If construction work activities occur within the avian nesting season (generally defined as January 15 through September 15), a qualified biologist will conduct a nesting bird and raptor survey no less than 3 days prior to ground disturbance to identify any active nests within 500 feet of suitable nesting habitat. If an active nest is found, the nest shall be avoided, and a suitable buffer zone delineated in the field where no impacts would occur until the chicks have fledged the nest as determined by a qualified biologist. Construction avoidance buffers are generally 300 feet for non-listed passerines and 500 feet for listed avian species (i.e., least Bell's vireo) and raptors; however, avoidance buffers may be reduced for non-listed species at the discretion of the biologist, depending on the location of the nest and the species' tolerance to human presence and construction-related noises and vibrations. BIO-2: Burrowing Owl. A qualified biologist will conduct a survey of suitable burrowing owl habitat within 500 feet of proposed construction activities. If a burrow is located, the biologist will determine if an owl is present in the burrow. If the burrow is determined to be occupied, the burrow will be flagged and a 160-foot buffer during the non-breeding season and a 250-foot buffer during the breeding season, or a buffer to the edge of the project site if less than 500 feet, will be established around the burrow. The buffer will be staked and flagged. No disruptive activities will be permitted within the buffer until the young are no longer dependent on the burrow.	Less than Significant Impact with Mitigation

Impacts	Mitigation Measures	Significance after Mitigation
	If the burrow is unoccupied, the burrow will be made inaccessible to owls, and the construction may proceed. If either a nesting or escape burrow is occupied, owls shall be relocated through coordination with the CDFW and USFWS. Determination of the appropriate method of relocation, such as eviction/passive relocation or active relocation, shall be based on the specific site conditions (e.g., distance to nearest suitable habitat and presence of burrows within that habitat) in coordination with the CDFW and USFWS. Active relocation and eviction/passive relocation require the preservation and maintenance of suitable burrowing owl habitat determined through coordination with the CDFW and USFWS. BIO-3: Nighttime Lighting. Construction activities shall be restricted to between the hours of 7 a.m. and 7 p.m. where feasible. If nighttime construction is necessary, all light sources shall be directed away from sensitive receptors (i.e., adjacent habitats) to reduce impacts to sensitive biological resources utilizing the habitat. Permanent lighting installed as part of the WRP 4 facilities construction shall be directed away from adjacent habitats to reduce impacts to sensitive biological resources during Project operation. BIO-4: General Avoidance and Minimization Measures • Prior to the commencement of construction activities, construction personnel shall check under stationary equipment to ensure no wildlife species are present. • All trash shall be collected daily and taken off-site for proper disposal. • Prior to Project implementation, a Workers Environmental Awareness Program (WEAP) shall be prepared and presented to construction crews regarding the potential for nesting birds and other special-status wildlife species to occur on-site during construction activities. The WEAP training will concentrate on the proper identification of sensitive resources while in the field, strategies to avoid impacts to sensitive resources, and proper reporting methods for field crews if sensitive resources are observed during construction activities. • Erosion control measures (e.g., silt fencing, straw wattles) shall be implemented within the project area to prevent sediment/contaminants from continuing off-site. • Drip pans shall be placed underneath all mechanical machinery that will be staged within or adjacent to aquatic resources. • Refueling of equipment shall be conducted at least 50 feet from aquatic resources.	

Impacts	Mitigation Measures	Significance after Mitigation
3.4-2: Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS? 3.4-3: Would the proposed project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? 3.4-4: Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? 3.4-5: Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? 3.4-6: Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	BIO-5: Bats. Prior to commencement of construction activities, within or outside of the maternity roosting season (March through August), a qualified biologist shall conduct a pre-construction clearance survey throughout the development footprint and fuel-modification zones that are determined to provide suitable bat roosting habitat to determine if bats are roosting within 500 feet of proposed project activities. If bats are determined to be using trees specifically for roosting, the biologist will determine whether a day roost (non-breeding) or maternity roost (lactating females and dependent young) is present. If a day roost is determined to be present, the biologist shall ensure that direct mortality to roosting individuals will not occur. If removal of any trees supporting a day roost would occur, 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 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. At a minimum, the plan shall include avoidance and minimization measures to evict bats safely and humanely and prescribe methods to minimize any potential impacts.	
	None Required	Less than Significant Impact
	None Required	Less than Significant Impact
	None Required	Less than Significant Impact
	None Required	No Impact
	None Required	Less than Significant Impact

Impacts	Mitigation Measures	Significance after Mitigation
3.4-7: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to biological resources?	Implement Mitigation Measures BIO-1 through BIO-5	Less than Significant Impact with Mitigation
Cultural Resources		
3.5-1: Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	CUL-1: Cultural Resources Sensitivity Training. Prior to the start of ground-disturbing activities, a Qualified Archaeologist meeting the Secretary of the Interior Standards or their designee shall conduct construction worker archaeological resources sensitivity training for all construction personnel. Construction personnel shall be informed on how to identify the types of precontact and historic archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources, and safety precautions to be taken when working with archaeological monitors. CVWD shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance. CUL-2: Unanticipated Find Protocol. If historic-period or precontact archaeological resources are unearthed during construction, all work must halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for pre-contact and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. Work may continue outside of the buffer area. • If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately. • If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, they shall immediately notify CVWD and applicable landowner and follow Mitigation Measures CUL-3 and CUL-4, as applicable. CUL-3: Treatment Plan Development. If a resource is determined by the qualified Archaeologist to constitute a "historical resource" pursuant to CEQA Guidelines Section 15064.5(a) or a "unique archaeological resource" pursuant to Public Resources Code Section 21083.2(g), the Qualified Archaeologist shall coordinate with the CVWD to develop a formal treatment plan that would serve to reduce impacts to the resources.	Less than Significant Impact with Mitigation

Impacts	Mitigation Measures	Significance after Mitigation
3.5-2: Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? 3.5-3: Would the proposed project disturb any human remains, including those interred outside of dedicated cemeteries?	The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any archaeological material collected shall be curated at a public, non-profit institution with a research interest in the materials, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a local school or historical society in the area for educational purposes. CUL-4: Final Monitoring Report. The qualified Archaeologist shall prepare a technical report that 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. Appropriate California Department of Parks and Recreation Site Forms (Site Forms) shall also be prepared and provided in an appendix to the report. The technical report shall be submitted to the CVWD and the Eastern Information Center. Implement Mitigation Measures CUL-1 through CUL-4 CUL-5: Human Remains. If the find includes human remains, or remains that are potentially human, the archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the appropriate County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate	Less than Significant Impact with Mitigation Less than Significant Impact with Mitigation

Impacts	Mitigation Measures	Significance after Mitigation
	Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.	
3.5-4: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to cultural resources?	Implement Mitigation Measures CUL-1 through CUL-5	Less than Significant Impact with Mitigation
Energy		
3.6-1: Would the proposed project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	None Required	Less than Significant Impact
3.6-2: Would the proposed project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	None Required	Less than Significant Impact
3.6-3: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to energy?	None Required	Less than Significant Impact
Geology and Soils		
3.7-1: Would the proposed project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault?	None Required	No Impact
3.7-2: Would the proposed project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?	None Required	Less than Significant Impact
3.7-3: Would the proposed project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	None Required	Less than Significant Impact
3.7-4: Would the proposed project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	None Required	No Impact
3.7-5: Would the proposed project result in substantial soil erosion or the loss of topsoil?	None Required	Less than Significant Impact

Impacts	Mitigation Measures	Significance after Mitigation
3.7-6: Would the proposed project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	None Required	No Impact
3.7-7: Would the proposed project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	None Required	No Impact
3.7-8: Would the proposed project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	None Required	No Impact
3.7-9: Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	None Required	Less than Significant Impact
3.7-10: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to geology and soils?	None Required	Less than Significant Impact
Hazards and Hazardous Materials		
3.8-1: Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	None Required	Less than Significant Impact
3.8-2: Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	None Required	No Impact
3.8-3: Would the proposed project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?	None Required	No Impact
3.8-4: Would the proposed project result in a safety hazard or excessive noise for people residing or working in the project area residing within two miles of a public airport or public use airport?	None Required	Less than Significant Impact
3.8-5: Would the proposed project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Implement Mitigation Measure TRA-1 (See Section 3.12, <i>Transportation</i>)	Less than Significant Impact with Mitigation
3.8-6: Would the proposed project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	None Required	No Impact

Impacts	Mitigation Measures	Significance after Mitigation
3.8-7: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to hazards and hazardous materials?	Implement Mitigation Measure TRA-1 (See Section 3.12, <i>Transportation</i>)	Less than Significant Impact with Mitigation
Hydrology and Water Quality		
3.9-1: Would the proposed project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	None Required	Less than Significant Impact
3.9-2: Would the proposed project 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
3.9-3: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: result in substantial erosion or siltation on- or offsite; 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?	None Required	Less than Significant Impact
3.9-4: Would the proposed project be located in flood hazard, tsunami, or seiche zones, and risk release of pollutants due to project inundation?	None Required	Less than Significant Impact
3.9-5: Would the proposed project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	None Required	Less than Significant Impact
3.9-6: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to hydrology and water quality?	None Required	Less than Significant Impact
Land Use		
3.10-1: Would the proposed project physically divide an established community?	None Required	No Impact
3.10-2: Would the proposed project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	None Required	Less than Significant Impact

Impacts	Mitigation Measures	Significance after Mitigation
3.10-3: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to land use and planning?	None Required	Less than Significant Impact
Noise		
3.11-1: Would the proposed project 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?	NOISE-1: Construction Noise. The following measures shall be implemented to reduce construction noise impacts on noise-sensitive receptors: - CVWD shall notify in writing all landowners and occupants of properties within 500 feet of the construction area before construction commences. A Noise Complaint Coordinator shall be responsible for responding to complaints regarding construction noise and ensuring that reasonable measures are implemented. - Construction equipment noise shall be minimized by muffling and shielding intakes and exhaust on construction equipment and implementing mobile or stationary sound barriers that block the line-of-sight between the noise source and noise sensitive receiver where necessary to achieve a minimum 11 dBA reduction. Mobile or stationary sound barriers shall only be required for pipeline installation construction activities occurring within 50 feet of noise sensitive uses.	Less than Significant Impact with Mitigation
3.11-2: Would the proposed project generate excessive groundborne vibration or groundborne noise levels?	None Required	Less than Significant Impact
3.11-3: Would the proposed project expose people residing or working in the project area to excessive noise levels in 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?	None Required	Less than Significant Impact
3.11-4: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to noise and vibration?	Implement Mitigation Measure NOISE-1	Less than Significant Impact with Mitigation

Impacts	Mitigation Measures	Significance after Mitigation
Transportation		
3.12-1: Would the proposed project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	TRA-1: Traffic Control Plan. For construction of pipelines, CVWD shall require that contractors prepare a construction Traffic Control Plan that includes the following elements: Show all signage, striping, delineated detours, flagging operations, and any other devices that will be used during project construction to guide motorists, bicyclists, and pedestrians safely through the construction area and allow for adequate access and circulation. Develop circulation and detour plans if necessary to minimize impacts to local street circulation. For roadways requiring lane closures that would result in a single open lane, maintain alternate one way traffic flow and utilize flagger-controls. Coordinate with Riverside Transit Authority at least 30 days prior to construction of pipelines within roadways or rights-of way that coincide with public transit routes to determine whether construction of the proposed project would affect bus stop locations or otherwise disrupt public transit routes. A plan shall be developed to relocate bus stops or reroute buses to avoid disruption of transit service. The Traffic Control Plan shall be prepared to ensure that emergency access will not be restricted. CVWD shall also notify local emergency responders of any planned partial or full lane closures required for project construction. Emergency responders include fire departments, police departments, and ambulances that have jurisdiction within the project area. Written notification and disclosure of lane closure location must be provided at least 30 days prior to the planned closure to allow emergency response providers adequate time to prepare for lane closures.	Less than Significant Impact with Mitigation
3.12-2: Would the proposed project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	None Required	Less than Significant Impact
3.12-3: Would the proposed project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	None Required	Less than Significant Impact
3.12-4: Would the proposed project result in inadequate emergency access?	None Required	No Impact
3.12-5: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to transportation and traffic?	Implement Mitigation Measure TRA-1	Less than Significant Impact with Mitigation

Impacts	Mitigation Measures	Significance after Mitigation
Tribal Cultural Resources		
3.13-1: Would the proposed 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 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	Mitigation Measure TCR-1: Native American Monitor. Prior to the commencement of ground disturbing activity, the District shall notify the designated consulting Tribe of such activity. Should the designated consulting Tribe choose not to monitor or not respond within 14 days, the work can continue without a Tribal Monitor present. The on-site Tribal monitoring shall end when all initial ground disturbing excavation activities on the proposed project site are completed, or when the Tribal representatives and Tribal Monitor have indicated that the proposed project site has little to no potential for impacting tribal cultural resources. In the event that cultural resources of Native American origin are identified during construction, CVWD will coordinate with the qualified archaeologist (who meets the Secretary of the Interior's Professional Qualifications Standards), and the designated consulting Tribe (if not present). If CVWD, in consultation with the designated consulting Tribe, identifies that the resource is a tribal cultural resource and thus significant under CEQA, avoidance of the resources will be explored. If avoidance is not feasible, a treatment plan shall be prepared and implemented in accordance with state guidelines and in consultation with the designated consulting Tribe. The treatment plan may include, but would not be limited to avoidance, capping in place, excavation and removal of the resource, interpretive displays, sensitive area signage, or other mutually agreed upon measure.	Less than Significant Impact with Mitigation
3.13-2: Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources 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 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? 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.	Implement Mitigation Measure TCR-1	Less than Significant Impact with Mitigation
3.13-3: Would concurrent construction and operation of the proposed Project and planned cumulative development result in cumulative impacts to tribal cultural resources?	Implement Mitigation Measure TCR-1	Less than Significant Impact with Mitigation

CHAPTER 1

Introduction and Project Background

1.1 Introduction

The Coachella Valley Water District (CVWD), as the lead agency pursuant to the California Environmental Quality Act (CEQA), is proposing the Water Reclamation Plant No. 4 (WRP 4) Non-Potable Water Improvements Project (proposed project) in Thermal, California. The proposed project would involve upgrading treatment at WRP 4 to produce and distribute recycled water in the east Coachella Valley. The project would initially distribute 1 million gallons per day (MGD) of non-potable recycled water for irrigation, with planned expansion to 10 MGD. The proposed project would be implemented in three phases, as summarized below.

The Phase 1 project would include construction and operation of a 1-MGD packaged cloth disk filtration system and an ultraviolet (UV) disinfection treatment plant as part of an overall treatment facility incorporating infrastructure expandable to 2.5 MGD. CVWD would construct a new reservoir serving as a regulatory structure within WRP 4 and repurpose an existing irrigation pipeline to deliver a blend of recycled water and Coachella Canal water (Canal water) to three local customers located south of WRP 4. Phase 2 would incorporate additional equipment at WRP 4 to treat up to 2.5 MGD of tertiary treated recycled water, with onsite infrastructure expandable to 10 MGD, and construction of new distribution pipelines to deliver 2.5 MGD of recycled water. Phase 3 includes incorporating additional equipment only to treat up to 10 MGD and would not involve additional on-site infrastructure. Similar to Phase 2, new recycled water delivery pipelines would be constructed to accommodate delivery of 10 MGD.

1.2 Purpose of the EIR

CVWD has prepared this Draft Environmental Impact Report (Draft EIR) with the intent to identify and analyze any potential adverse effects on the local and regional environment associated with construction and operation of the proposed project. This Draft EIR has been prepared pursuant to the California Environmental Quality Act of 1970 (as amended), codified at California Public Resources Code Sections 21000 et. seq., and the CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387.

This Draft EIR has been prepared in accordance with the CEQA-Plus requirements of the U.S. Environmental Protection Agency (USEPA) to fulfill the requirement of potential federal funding partners to comply with the National Environmental Policy Act (NEPA). Potential federal funding partners could include the State Water Resources Control Board (SWRCB) through the State Revolving Fund (SRF) Loan Program or U.S. Bureau of Reclamation (USBR), both of which provide funding for construction of publicly-owned treatment facilities and water reclamation projects.

1.3 Project Background

This Section provides an overview of CVWD's mission and assets and provides an introduction to the water management planning efforts that have shaped the need for and design of the proposed project.

1.3.1 CVWD Overview

CVWD is a special-district agency that delivers irrigation and domestic (drinking) water, collects and recycles wastewater, provides regional stormwater protection, replenishes the groundwater basin, and promotes water conservation within the Coachella Valley. CVWD is a Sustainable Groundwater Management Act (SGMA) Groundwater Sustainability Agency (GSA). The Operations Department specifically provides wastewater collection and sanitation treatment services. To provide these services, CVWD owns and operates a large collection system and treats wastewater influent at five WRPs (WRP 1, 2, 4, 7 & 10). The CVWD sanitary collection sewer system includes more than 1,130 miles of sanitary sewer pipeline, which are comprised of approximately 1,060 miles of gravity pipelines and 70 miles of force mains. In addition, CVWD maintains more than 30 lift stations that collect and transport wastewater to the nearest water reclamation facility (CVWD 2023).

1.3.2 Water Reclamation Plant 4

WRP 4 is CVWD's second largest WRP in terms of treatment capacity and provides collection service to approximately 63,000 people in the cities of La Quinta, Mecca, Palm Desert, and Thousand Palms. The facility is permitted under a National Pollutant Discharge Elimination System (NPDES) permit to discharge a maximum monthly average daily effluent flow of 9.9 MGD to the Coachella Valley Stormwater Channel (CVSC). WRP 4's annual average influent flows have remained relatively constant over the past few years (2015-2019), averaging 5.0 MGD. WRP 4 uses two secondary treatment systems operating in parallel to provide biochemical oxygen demand and total suspended solids (TSS) reduction: a lagoon treatment system with a permit capacity of 7.0 MGD and a sludge treatment system with a permit capacity of 2.9 MGD. In addition to the secondary treatment systems, WRP 4 also has a new headworks facility (constructed in 2015), a disinfection and dechlorination system, and solids handling facilities (CVWD 2023).

Currently, WRP 4 effluent is discharged to the CVSC pursuant to Order R7-2023-0013 and NPDES Permit No. CA0104973. CVWD submitted a Wastewater Change Petition (WW0093) to the SWRCB in 2016 to divert flows to agricultural irrigation, reducing the demand on local groundwater and Canal water. This Draft EIR has been prepared to evaluate the environmental impacts of the project, including reduced discharge and increased recycled water use.

1.3.3 Recycled Water Policy

The SWRCB's Recycled Water Policy most recently updated in 2018 states that recycled water should be produced to meet local water supply needs and encourages increased use of recycled water in groundwater-overdrafted areas. CVWD's Sanitation Master Plan estimates that growth in the WRP 4 service area is expected to increase plant influent flows to as much as 20 MGD by 2045. In response to the potential growth and to ensure existing flows are used beneficially consistent with the Recycled Water Policy, CVWD has planned to construct a tertiary treatment facility at WRP 4 to meet future needs and to

enable 100 percent of the effluent to be beneficially reused, ultimately eliminating discharges to the CVSC. WRP 4 is not currently producing or delivering recycled water. The proposed project would enable CVWD to provide recycled water, compliant with California Code of Regulations Title 22 to agricultural and other irrigation customers in the eastern portion of Coachella Valley.

1.3.4 Sanitation Master Plan Update

CVWD prepared the Sanitation Master Plan Update in 2020 which identifies a long-term, comprehensive capital improvement program (CIP) consisting of recommendations to refurbish or replace existing assets, optimize operations, and satisfy projected capacity needs of all sanitation facilities, including gravity pipelines, force mains, lift stations, and the five WRPs to be implemented between 2020 to 2040 in CVWD's service area. The funding, scheduling, and detail for each project is subject to individual approval by CVWD. CVWD certified a Final Program Environmental Impact Report (PEIR) in 2022 per CEQA Guidelines Section 15168 for the Sanitation Master Plan Update 2020 (SCH No. 2019090307).

1.3.5 Coachella Valley Water Management Plan

The Coachella Valley is an arid region that faces significant challenges in managing its water resources with limited sources of natural recharge. The Indio Subbasin is one of the four subbasins of the Coachella Valley Groundwater Basin, and is the largest Subbasin in the Coachella Valley that provides groundwater supply to CVWD. The Indio Subbasin has been actively managed for nearly a century to address increasing water demands, including pumping for agricultural, urban, and rural demands. The region's use of groundwater has historically exceeded the natural recharge from the surrounding mountains and limited precipitation on the valley floor resulting in overdraft. The region is highly reliant on imported water which is used to meet agriculture and other irrigation demands and to artificially recharge the Indio Subbasin at replenishment facilities. To address historical overdraft, CVWD prepared the 2002 Coachella Valley Water Management Plan (CVWMP) for the Indio Subbasin, which was subsequently updated in 2010 (CVWMP 2010 Update). The CVWMP 2010 Update introduced several key strategies to meet water demands and manage the region's groundwater resources sustainably. These strategies included expanding groundwater replenishment, which involves artificially recharging aquifers with imported water to offset the groundwater extracted for use; source substitution, which consists of providing alternative water sources such as recycled water or Canal water to reduce groundwater pumping; and conservation programs for urban, agricultural, and golf course users to more efficiently use available water resources. Several activities were planned to maximize the use of recycled water for irrigation from existing wastewater and future growth flows as projected development occurs. One significant project under the CVWMP was the development of recycled water and construction of tertiary treatment and distribution facilities at WRP 4 for this purpose.

A PEIR was certified in 2002 for the 2002 CVWMP and then a Subsequent PEIR (SPEIR) was certified in 2012 covering the CVWMP 2010 Update. The PEIR and SPEIR both analyzed the potential impacts of the projects required to achieve the goals of the WMP, including their effects on the Salton Sea. Under the CVWMP 2010 Update, drain flows were expected to increase from existing conditions. However, with desalination of drain water, which was considered as a potential source of supply to meet future demands much higher than what is now projected, the net drain flow to the Sea could decrease by up to 30 percent compared to current levels. The 2012 CVWMP SPEIR found that this decrease would have a less than significant impact on the overall inflows to the Sea in terms of hydrology and salinity.

1.3.6 Indio Subbasin Water Management Plan Update

To comply with SGMA adopted in 2014, the Indio Subbasin GSAs, which include CVWD, submitted the CVWMP 2010 Update as an Alternative to a Groundwater Sustainability Plan (GSP). The California Department of Water Resources (DWR) approved the “Alternative Plan” in 2019. As required by SGMA, the GSAs completed the required five-year update titled the *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan* in 2021 (referred to as the 2022 WMP). The 2022 WMP was approved by DWR in June 2024. The updated plan includes considerations of the impacts of climate change on water supply reliability. It continues to focus on groundwater replenishment, source substitution, and conservation to meet the region's water needs. CVWD has a statutory obligation to implement the plan and meet the groundwater sustainability goals outlined under SGMA.

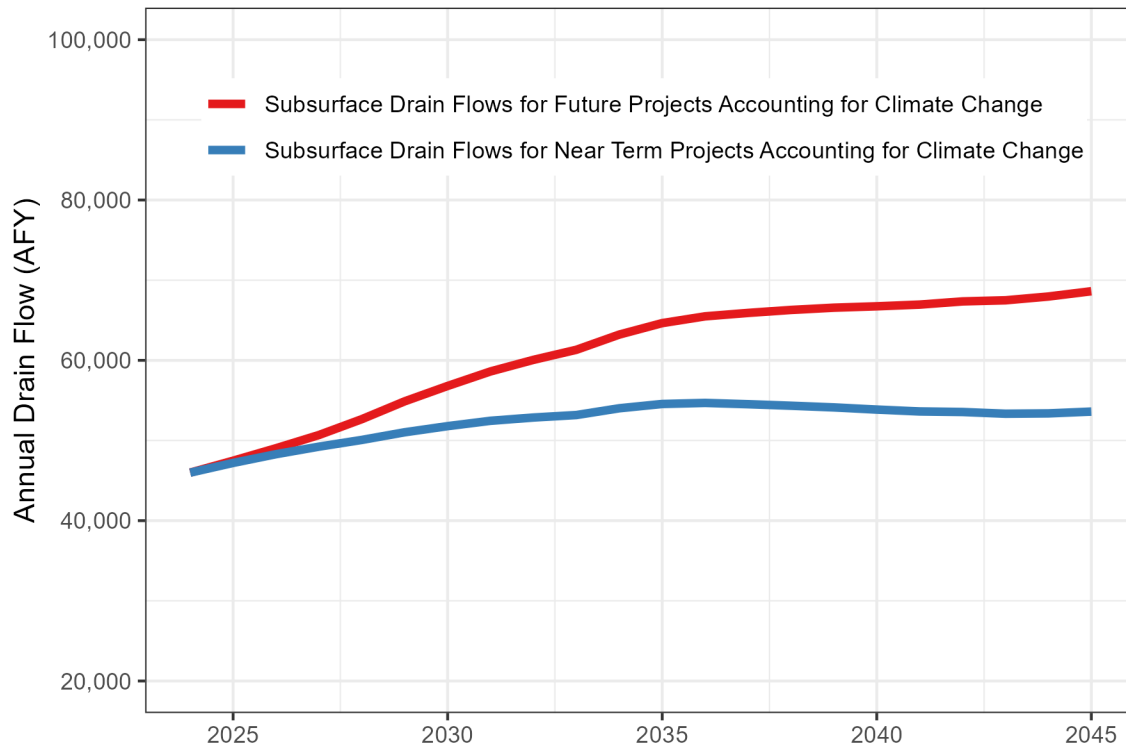
The 2022 WMP identifies management actions needed to maintain a sustainable groundwater basin in compliance with SGMA requirements. These management actions include Near Term Projects and Future Projects. **Table 1-1** summarizes some of the projects in the 2022 WMP that are currently being implemented. The WRP 4 project is included as Project and Management Action (PMA) number 18 under the Source Substitution and Replenishment category and remains a critical component of the plan.

TABLE 1-1
INDIO SUBBASIN GROUNDWATER MANAGEMENT PLAN UPDATE PROJECTS CURRENTLY BEING IMPLEMENTED

Project	Description	-Pumping/ +Replenishment	Status
Oasis in Lieu Project (PMA #13)	Project will expand the Canal water delivery system to the Oasis Area to substitute groundwater production.	-32,000	Project has been substantially completed and agricultural customers are being connected to the irrigation system.
Palm Desert Groundwater Replenishment Facility Phase 2 (PMA #20)	Project will expand direct replenishment of the groundwater at the existing Palm Desert Groundwater Replenishment Facility	+15,000	All permits received and design completed. Request for construction bids to be published in summer 2025
East Golf Non Potable Water Expansion (PMA #12)	Project will connect additional golf customers in the East Valley to the Coachella Canal to substitute groundwater production. Two additional connections planned between FY 2027 and FY 2028.	-2,044	Design anticipated to begin in 2026.

Source: ISGSA, 2021

To evaluate the effectiveness of the management actions in the 2022 WMP, CVWD updated the Indio Subbasin groundwater model to verify that the implementation of the plan will result in a sustainable basin. The model simulations include outputs of future Coachella Valley subsurface drain flows. The groundwater model's subsurface drain flows are validated with CVSC gage data and drain flow monitoring data collected by CVWD. The model estimates that future subsurface drain flows into the Salton Sea from the Coachella Valley are expected to increase with implementation of identified PMAs. **Figure 1-1** presents the modeled future subsurface drain flow from the Coachella Valley to the Salton Sea as estimated in the 2022 WMP. As shown in Figure 1-1, future inflows to the Salton Sea from the Coachella Valley are expected to increase compared with existing conditions as PMAs (both Near Term Projects and Future Projects) are implemented.

**Figure 1-1**

Modeled Subsurface Drain Flow Projections from Coachella Valley to the Salton Sea Based on the 2022 WMP

1.3.7 Wastewater Change Petition

CVWD submitted a Wastewater Change Petition request (WW0093) pursuant to Water Code section 1211 to the SWRCB in 2016 to change the purpose and place of use of the WRP 4 discharge to accommodate beneficial reuse. A Public Notice of the Change Petition was published by SWRCB in 2017 (SWRCB 2017). The Change Petition was a part of CVWD's ongoing effort to implement the 2002 CVWMP and the 2010 CVWMP Update, a comprehensive and integrated plan to sustainably manage groundwater through water conservation, development of additional water sources, including wastewater reuse from WRP 4, source substitution, and groundwater replenishment. CVWD's Change Petition referenced the environmental review that had occurred in the 2002 CVWMP PEIR (CVWD 2002) and the 2010 CVWMP Update SPEIR (CVWD 2012). The SWRCB notified CVWD that they had received several protests to the Change Petition from CDFW; Imperial Irrigation District (IID); Citizens United for Resources and the Environment, Inc. (CURE); Audubon California, Defenders of Wildlife, Environmental Defense Fund, Pacific Institute and Sierra Club California (collectively, NGO Protestants); AGESS, Inc. (AGESS); West Shores Salton Sea; and Twenty-Nine Palms Band of Mission Indians. The protests of Twenty-Nine Palms Band of Mission Indians and AGESS have been withdrawn.

The issues raised in the protests fall into four general categories: 1) impacts to other legal users of water; 2) impacts to habitat, fish and wildlife resulting from reduced flows to the Salton Sea; 3) impacts to habitat, fish and wildlife resulting from reduced flows in the CVSC; and 4) impacts to air quality resulting from exposed playa and increased dust.

CVWD prepared responses to these issues in 2018. In response to issue one, CVWD noted that since no known water rights holders are located between WRP 4 and the Salton Sea, no legal users of water would be injured by the project. In response to issue two, CVWD noted that overall flows to the Salton Sea from the Coachella Valley are expected to increase in the future as a result of the projects that will be implemented pursuant to the CVWMP 2010 Update. In response to issue three, CVWD noted that cumulative flows in the CVSC would remain sufficient to support beneficial uses. In response to issue four, CVWD noted that the project is not expected to result in a net decrease in flows to the Salton Sea, due to the projects being implemented pursuant to the CVWMP 2010 Update. Therefore, the project will not cause a lowering of Salton Sea level and will not increase impacts on air quality or human health as a result.

CVWD has prepared this project-specific CEQA document for the WRP 4 Water Recycling Project to evaluate potential environmental impacts of constructing and operating the proposed project, providing additional analysis on issues raised by the protestors, and incorporating new information developed in the 2022 WMP. To support the analysis of issues raised by the protestors, CVWD has prepared two new technical studies (**Appendix HYDRO-1** and **Appendix HYDRO-2**) that evaluate the effects of reduced flow on the CVSC and Salton Sea ecosystems.

1.4 CEQA Tiering Process

CEQA Guidelines Section 15152(d) provides that “where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to the effects that were not analyzed as significant in the prior EIR, or that are susceptible to substantial reduction or avoidance.” To evaluate the proposed project in more detail, CVWD has decided to prepare a stand-alone EIR that tiers from the Sanitation Master Plan Update 2020 PEIR. This Draft EIR has been prepared to analyze the effects on the environment and augments the analysis included in the CVWD Sanitation Master Plan Update 2020 Final PEIR. The environmental analysis in this EIR is tiered from the Sanitation Master Plan Update 2020 PEIR (CVWD 2022) in accordance with Sections 15152 and 15168 of the State CEQA Guidelines. This document incorporates by reference the analysis in the Sanitation Master Plan Update 2020 and PEIR (CVWD 2022) and focuses on proposed project-specific issues.

1.5 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 environmental review 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 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: Aesthetics; Air Quality and Greenhouse Gas Emissions; Biological Resources; Cultural Resources; Energy; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Noise; Transportation; and Tribal Cultural Resources. This chapter also summarizes environmental topics for which no significant impact would occur.
- **Chapter 4, Other CEQA Considerations and Growth Inducement:** 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, CEQA-Plus Considerations.** This chapter presents federal cross-cutting regulations associated with NEPA.
- **Chapter 7, 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 NOP**), as well as technical studies that support the impact analyses, such as Air Quality and Greenhouse Gas Emissions Calculations (**Appendix AQ/GHG/Energy**), Biological Resources Technical Report (**Appendix BIO**), Modeling the potential effects of flow reductions from WRP 4 on downstream channel hydrology and riparian vegetation, (**Appendix HYDRO-1**), Applying the Salton Sea Accounting Model to the CVWD WRP 4 Recycled Water Project (**Appendix HYDRO-2**), and the Tribal Cultural Resources Consultation (**Appendix TRIBAL**).

1.6 CEQA Environmental Review Process

1.6.1 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. CVWD 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.

As mentioned above, this Draft EIR has been prepared in accordance with the CEQA-Plus requirements of the USEPA to fulfill the requirement of potential federal funding partners to comply with the NEPA, which are included in Chapter 6 *Other CEQA Considerations* of this Draft EIR.

1.6.2 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 October 12, 2023, CVWD published a NOP of a Draft EIR for a 30-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 a detailed Initial Study providing initial analysis of environmental topics that will be evaluated within the Draft EIR. The NOP was made available at CVWD's office, located at 75515 Hovley Lane East, Palm Desert, California 92211, as well as at the Coachella Branch Public Library, located at 1500 6th Street, Coachella CA, 92236; the Mecca Library, located at 91260 66th Avenue, Mecca, CA 92254; and the La Quinta Library, located at 78275 Calle Tampico, La Quinta CA, 92253. The NOP was also available online at the CVWD Web Site (<https://www.cvwd.org/642/Water-Reclamation-Plant-No-4-WRP-4-Non-P>). One scoping meeting was held for the NOP on November 1, 2023, to receive comments and suggestions about issues to be included in the Draft EIR. Verbal comments were made at the scoping meeting. Eleven NOP comments were received in response to the NOP. A copy of the NOP, scoping meeting comments, and comment letters are included in this Draft EIR in **Appendix NOP**.

1.6.3 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 determined by the date of publication of the NOP (October 2023) for the proposed project unless otherwise indicated (CEQA Guidelines Section 15125(a)). A future baseline condition may be selected for certain topics if doing otherwise would misrepresent the potential impacts. (CEQA Guidelines Section 15125(a)(1)). Since the Salton Sea and estimated inflows to the Salton Sea are projected to change in the

future, this Draft EIR considers impacts to both the baseline condition at the time of the NOP as well as a reasonably foreseeable future baseline condition at the Salton Sea, including the estimated cumulative inflows to the Salton Sea from the Coachella Valley. The impact analysis in this Draft EIR includes an assessment of both existing and future baseline conditions where appropriate to most accurately depict future conditions.

In accordance with 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.

1.6.4 Draft EIR Public Review

In accordance with Section 15105 of the CEQA Guidelines, this Draft EIR has been submitted to the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation 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 State Clearinghouse. Please submit all comments to:

Coachella Valley Water District
75515 Hovley Lane East
Palm Desert, California 92211
Attn: William Patterson, Environmental Services Program Supervisor
WPatterson@cvwd.org
(760) 398-2651

1.6.5 Final EIR Publication and Certification

Once this Draft EIR public review period has ended, CVWD 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, CVWD may provide an opportunity for review of the Final EIR by the public or by commenting agencies before 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, CVWD 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 CVWD Board of Directors may proceed to consider any final decisions regarding the proposed project (CEQA Guidelines Sections 15090, 15092). Prior to approving the proposed project, CVWD must make written Findings in accordance with Section 15091 of the CEQA Guidelines. Pursuant to CEQA Guidelines Section 15094,

CVWD will file an NOD with the State Clearinghouse and Riverside County Clerk within five working days, if the proposed project is approved.

1.6.6 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 (MMRP) and implemented by CVWD.

1.7 References

Coachella Valley Water District, 2002. Coachella Valley Water Management Plan (CVWMP). September 2002.

Coachella Valley Water District, 2012. 2010 Coachella Valley Water Management Plan Update. January 2012.

Coachella Valley Water District, 2022. *Coachella Valley Water District Sanitation Master Plan Update 2020, Final Program Environmental Impact Report (State Clearinghouse Number 2019090307)*. November 2022.

Coachella Valley Water District, 2023. *Preliminary Design Report for the Water Reclamation plant No. 4 Non-Potable Improvements*. Prepared by Black & Veatch. February 2023.

Indio Subbasin Groundwater Sustainability Agencies, 2021. 2022 Indio Subbasin Water Management Plan Update (2022 WMP). Prepared by Todd Groundwater and Woodard & Curran. Adopted December 2021.

State Water Resources Control Board (SWRCB), 2017. *Notice of Wastewater Change Petition WW0093*. November 2017.

CHAPTER 2

Project Description

2.1 Project Overview

The Coachella Valley Water District (CVWD) is proposing to implement the Water Reclamation Plant No. 4 (WRP 4) Non-Potable Water Improvements Project (proposed project) in Thermal, California. The proposed project would involve upgrading treatment at WRP 4 to distribute an initial 1 million gallons per day (MGD) of non-potable recycled water to irrigation customers. Subsequent phases of the project could produce up to 10 MGD.

The Phase 1 project would design and construct a 1 MGD tertiary treatment facility and distribution pipeline to deliver a blend of recycled water and Canal water to three large agricultural customers south of WRP 4, which would allow CVWD to modify operations and reduce delivery of its Colorado River water supplies. The tertiary treatment would consist of a 1 MGD packaged cloth disk filtration system and an ultraviolet (UV) disinfection plant with onsite infrastructure expandable to 2.5 MGD. Once constructed, the Phase 1 project would result in the production of 1 MGD or approximately 1,120 acre-feet per year (AFY) in available recycled water. The recycled water would replace Colorado River Water (from the Coachella Canal) that currently supplies irrigation customers around WRP 4. The Colorado River water that is saved will be stored in Lake Mead. The Phase 1 project would meter the amount of recycled water that is delivered to confirm the anticipated savings. The project would have a useful life of 30 years and throughout all three phases, would conserve approximately 33,600 AF in the Colorado River System.

On December 16, 2024, CVWD and the United States Bureau of Reclamation (USBR) executed an agreement entitled “System Conservation Implementation Agreement” (SCIA) to Install Tertiary Treatment at Water Reclamation Plant No. 4 (WRP 4 Recycled Water Project) to Implement Phase Two of the Lower Colorado River Basin Conservation and Efficiency Program.” The premise of the Agreement is for the USBR to fund Phase 1 of the proposed project in exchange for CVWD to conserve 33,600 acre-feet of Colorado River water over 30 years by leaving the Colorado River water in Lake Mead.

Phase 2 would incorporate additional equipment at WRP 4 to treat up to 2.5 MGD of tertiary treated recycled water, with onsite facilities expandable to 10 MGD, and construction of new distribution pipelines to deliver 2.5 MGD of recycled water. Phase 3 includes incorporating additional equipment only to treat up to 10 MGD and would not involve additional on-site facilities. Phase 3 would produce 5.7 MGD recycled water plus future growth flows up to 10 MGD, which will be the design capacity of the WRP 4 treatment facility at buildout. Like Phase 2, new recycled water delivery pipelines would be constructed to accommodate delivery of 10 MGD. An off-site storage tank would be installed at the high point of the Phase 3 distribution pipeline to continue providing constant system pressure. Each phase of the proposed project would result in a reduction of discharge to the Coachella Valley Stormwater Channel

(CVSC). **Table 2-1** includes an overview of recycled water volumes and discharges associated with each phase of the proposed project.

TABLE 2-1
WRP 4 PROJECT TERTIARY CAPACITY, RECYCLED WATER AND DISCHARGES TO CVSC BY PHASE

	Tertiary Capacity Constructed (MGD)	Total Recycled Water (MGD)	Discharge to CVSC (MGD)
Phase 1	1	1	4.7
Phase 2	1.5	2.5	3.2
Phase 3	7.5	5.7 + growth flows*	0
Project Total	10	5.7 + growth flows*	0

* Note: Phase 3 expansion would increase the tertiary capacity of WRP 4 to a total 10 MGD which would be used to recycle all the influent flows including existing flows and future flows that may be generated by new sewer connections.

2.2 Project Location

CVWD's service area covers approximately 1,000 square miles from the San Geronio Pass to the Salton Sea, mostly within the Coachella Valley in Riverside County, California. CVWD's service boundary also extends into small portions of Imperial and San Diego counties. The topography of the service area is valley-centered, with a mild slope generally following the CVSC, which bisects the Coachella Valley as it flows from the west to the east/southeast to the Salton Sea. The Salton Sea generally forms the southern boundary of the CVWD service area, with the Chocolate Mountains on the east and the Santa Rosa Mountains on the west. The southern tip of the San Bernardino Mountains forms the northern extent of the service area.

WRP 4 is located southeast of Avenue 62 on Fillmore Street in Thermal, California, an unincorporated area of Riverside County. The property is bordered by Avenue 62 on the north, Avenue 64 on the south, Fillmore Street on the west, and by the CVSC on the east. The site has a stormwater berm running along the north edge of the property near avenue 62 and along the west side, parallel to Fillmore Street. Running parallel to Avenue 64 is a stormwater collection channel that carries agricultural drain water and precipitation runoff from properties north of Avenue 64 to the CVSC. The location of the project and the proposed Phase 1, 2 and 3 tertiary treatment system and distribution pipelines are depicted in **Figure 2-1**.

2.3 Project Purpose and Objectives

The proposed project is a component of CVWD's *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan* (Indio Subbasin GSAs 2021) referred to here as the 2022 WMP. The 2022 WMP outlines plans for maintaining long-term water supply reliability in the Coachella Valley while maintaining compliance with the Sustainable Groundwater Management Act (SGMA) and meeting increased water demands stemming from anticipated growth identified by the Southern California Association of Governments (SCAG) and local general plans (SCAG 2020; Indio Subbasin GSAs 2021). As the reliability of Colorado River and State Water Project deliveries declines due to changing climatic and hydrologic conditions (USBR 2021; DWR 2023a), efforts to develop drought-resilient local supplies become increasingly critical. By increasing the volume of

recycled water in its portfolio, the region can reduce reliance on imported water sources to maintain stable groundwater levels and enhance resilience during prolonged droughts. Identified in the 2022 WMP as Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery (Indio Subbasin GSAs 2021), the proposed project is part of a broader, programmatic suite of projects and actions designed to both meet future water demands and achieve SGMA's sustainability goals, and supports California's objectives for expanding recycled water use (DWR 2023b).

The project purpose includes developing facilities and the associated system for recycled water deliveries within the CVWD service area. The key objectives of the proposed project are to:

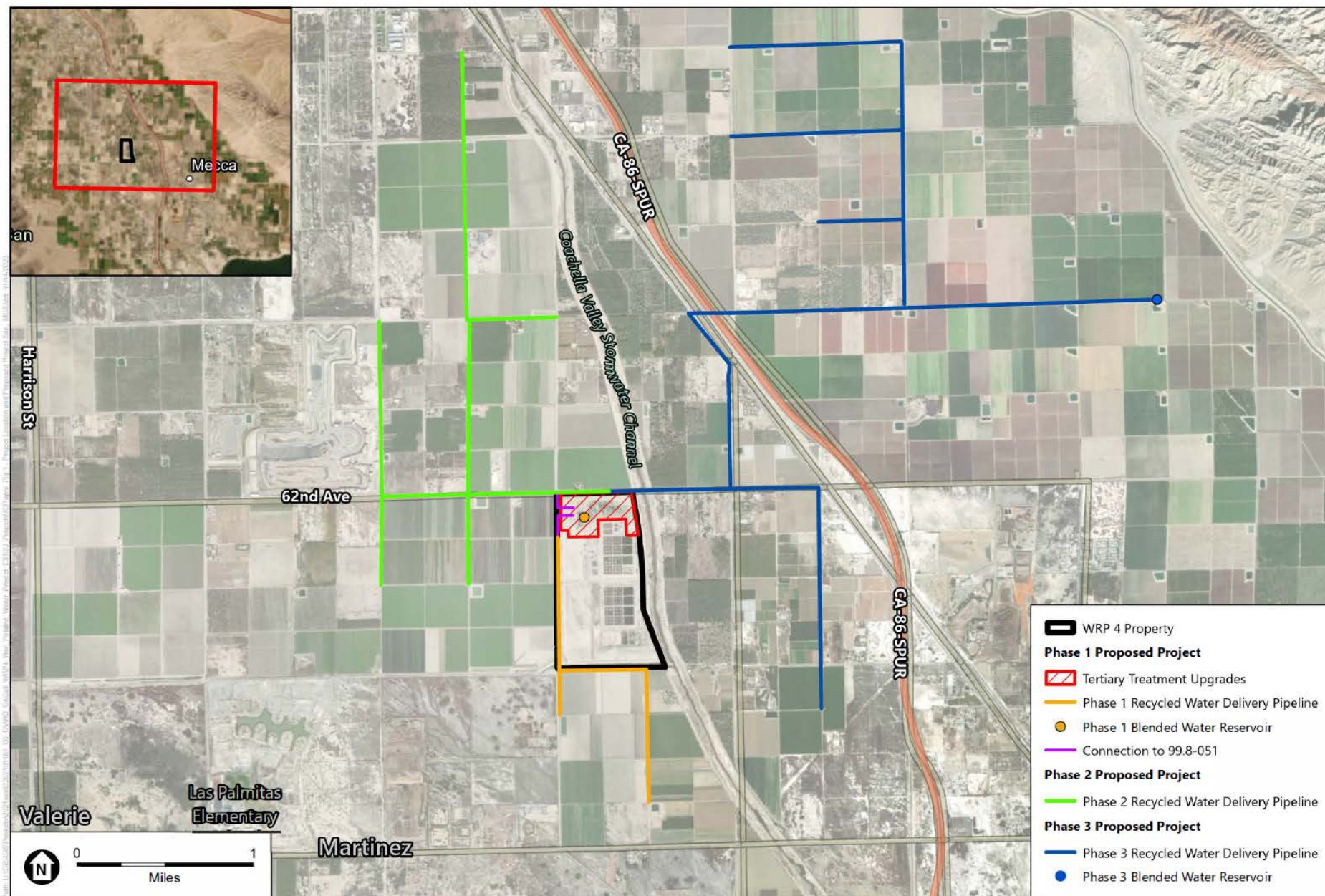
- Be consistent with the *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan*, which has the following objectives: meet current and future water demands, avoid chronic groundwater overdraft, and reduce vulnerability to climate change and drought impacts while complying with the requirements of SGMA;
- Support Lower Colorado River Basin State efforts to provide Colorado River water conservation in a timely manner to address the Colorado River water supply shortages;
- Provide an alternate water supply for local irrigation that is not local groundwater or imported Colorado River water;
- Upgrade recycled water treatment at WRP 4 and conveyance facilities to serve agricultural users as well as other landscape irrigation customers in the CVWD service area;
- Optimize use of recycled water for beneficial uses in an environmentally sound and cost efficient manner;
- Reduce pollutant discharges to receiving waters.

2.4 Current Facilities and Operations

2.4.1 Existing WRP 4 Facility

WRP 4 is CVWD's second largest wastewater reclamation plant in terms of treatment capacity and provides collection service to approximately 63,000 people in the cities of La Quinta, Mecca, Palm Desert, and Thousand Palms. WRP 4 has a design capacity of 9.9 MGD and currently treats an average daily flow of approximately 5.7 MGD. WRP 4 uses two secondary treatment systems operating in parallel to provide biochemical oxygen demand and total suspended solids (TSS) reduction: a lagoon treatment system with a permit capacity of 7.0 MGD and an activated sludge treatment system with a permit capacity of 2.9 MGD. In addition to the secondary treatment systems, WRP 4 also has a new headworks facility constructed in 2015, a chlorine gas disinfection and sulfur dioxide dechlorination system, and solids handling facilities.

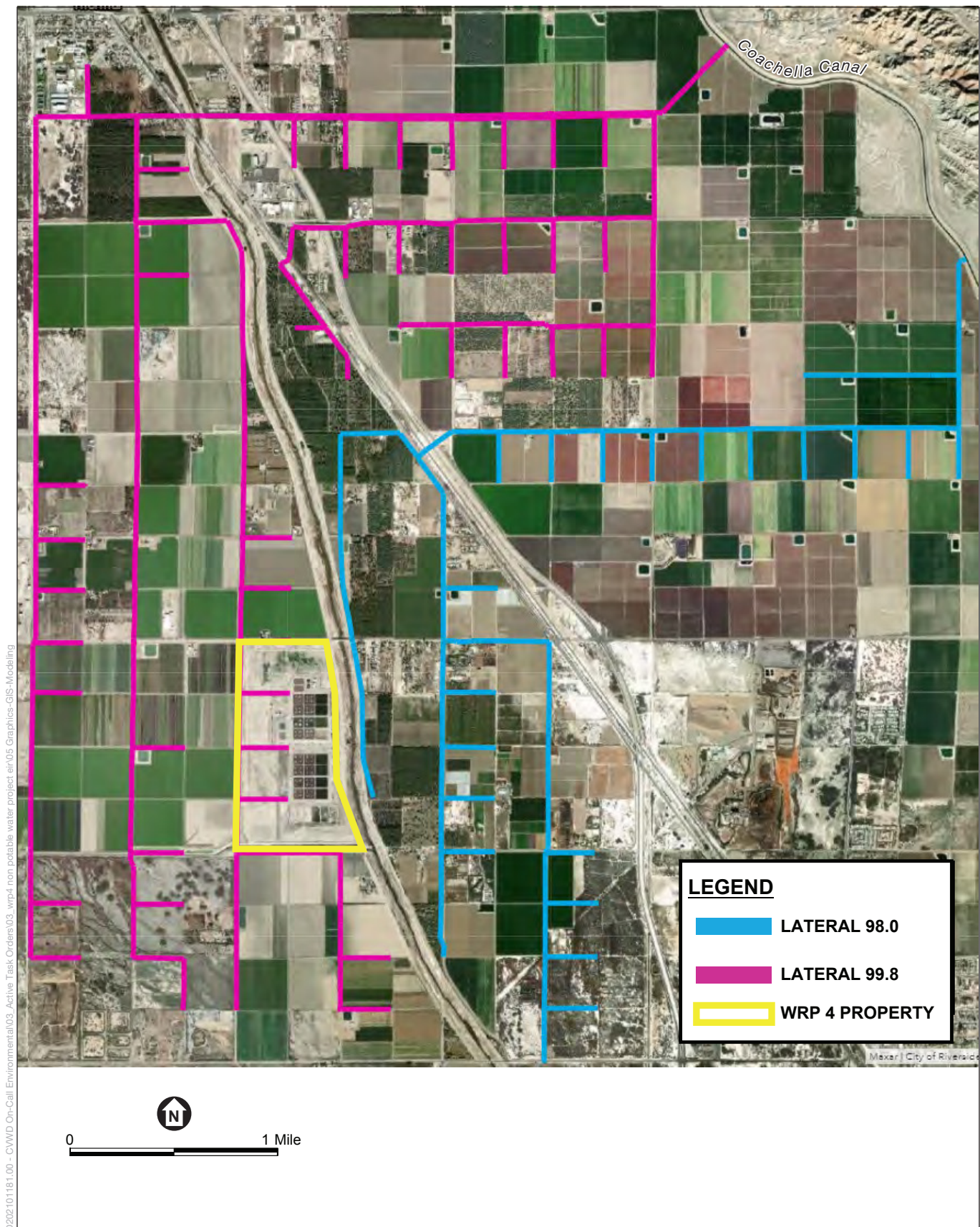
WRP 4 is not currently producing or delivering recycled water. Treated effluent from WRP 4 is discharged to the CVSC pursuant to Order R-7-2023-0013 and National Pollutant Discharge Elimination System (NPDES) No. CA104973.



SOURCE: ESA, 2022

WRP 4 Project

Figure 2-1
Project Location and Proposed Project Site



SOURCE: Coachella Valley Water District, 2023

WRP 4 Project

Figure 2-2
Existing Gravity-fed Irrigation System in Project Customer Region

2.4.2 Gravity Irrigation System

CVWD's eastern service area is primarily zoned as agricultural land that is irrigated via a 500-mile network of gravity-fed reinforced concrete pipes. These pipes originate from the 123-mile Coachella Canal that conveys Colorado River water into the Coachella Valley from the All-American Canal west of Yuma, Arizona. Figure 2-2 includes a map of the existing gravity-fed irrigation system pipes, or "laterals," used to deliver canal water to local customers on either side of the CVSC. The local system is comprised of two laterals branching from Mile Post 99.8 and 98.0 of the Coachella Canal (Lateral 99.8 and Lateral 98.0).

The irrigation system pipes are controlled using a network of baffle stands, diversion boxes, meters, and manual valves to direct water to the customers' delivery points. Delivery points are located at the high-point of each 40-acre plot which is typically the northwest corner. Standard customer connections deliver water into open-air reservoirs owned by local customers, who can then pump, or gravity flow the water out of their reservoir for irrigation.

Customers along Lateral 99.8 and Lateral 98.0 were selected as potential receptors of treated recycled water based on having annual minimal minimum daily demand volumes that would be able to accept the entire WRP 4 effluent flows (10 MG) when all three phases of the proposed tertiary upgrades are complete.

2.5 Description of the Proposed Project

2.5.1 Phase 1 Project

Proposed WRP 4 Tertiary Treatment System Upgrades

The Phase 1 project would design and construct a 1 MGD tertiary treatment facility and distribution pipeline to deliver a blend of recycled water and Canal water to three large agricultural customers south of WRP 4, which will allow CVWD to modify operations and reduce delivery of its Colorado River water supplies. The Tertiary treatment will consist of a 1 MGD packaged cloth disk filtration system and a UV disinfection plant with onsite infrastructure expandable to 2.5 MGD. The three customers currently irrigate using Canal water, which ranges from 0.7 MGD to 2.7 MGD. Subsequent to constructing this Phase 1 project, the Irrigation Lateral 99.8-0.51 would be severed and redirected to a new reservoir serving a regulatory basin within WRP 4. Blended Canal and recycled water would be delivered to customers from this reservoir and discharged into the downstream side of the severed irrigation lateral to a box stand located south of Avenue 64 on Fillmore Street.

The basic components would include: (1) a filter feed pump station (FFPS) to tie into the existing WRP 4 secondary treatment system; (2) a flow meter and chemical injection area; (3) two cloth disk filtration systems (tertiary filters); (4) a backwash and bypass pump station; (5) a UV disinfection building and electrical room; (6) a recycled water junction structure, (7) blended water reservoir; (8) a canal-water-receiving wet well (wet well); and (9) chemical storage and feed systems. A *Preliminary Design Report for the Water Reclamation Plant No. 4 Non-Potable Improvements* has been prepared detailing the upgrades at WRP 4 (CVWD 2023).

The site plan for the proposed WRP 4 tertiary treatment system is included as **Figure 2-3**. The Phase 1 tertiary upgrades would occur within the WRP 4 property just north of the existing secondary treatment facilities. The area allocated for tertiary treatment upgrades provides adequate space for future facilities

associated with buildout conditions, and future facilities are labeled on Figure 2-3 as such. Digital illustrations showing preliminary designs for tertiary treatment facilities are provided in **Figures 2-4a** and **Figure 2-4b**. Descriptions for each component are provided below.

Filter Feed Pump Station

The proposed FFPS includes a pump station with two vertical turbine pumps. The configuration of the FFPS would include space for one additional pump to allow for expansion to 2.5 MGD in the future (see Figure 2-4a). The proposed FFPS would raise the hydraulic grade line at WRP 4 so tertiary effluent could gravity flow through downstream facilities including the future pretreatment basins, tertiary filters, and UV Disinfection Building to the blended water reservoir, then be fed to customers through Lateral 99.8-0.51. Tertiary effluent will also be fed to a new low-pressure recycled water force main for delivery to the high point of each existing lateral network adjacent to the canal, where it can be blended with supplemental canal NPW prior to conveyance to customer delivery points.

The proposed FFPS would tie into the existing secondary treatment system via a new connection to an existing 24-inch effluent pipeline, which would pump flow from existing secondary clarifiers to the proposed tertiary filters. The proposed pipeline tie-in would also allow for diversion of flow from the secondary clarifiers to the head of the secondary treatment system during off-spec water events (i.e., in the event of excessive algae or solids-heavy washdown of the clarifiers). Such diversions would occur via the proposed backwash and bypass pump station, which is described further below.

Flow Meter and Chemical Injection Area

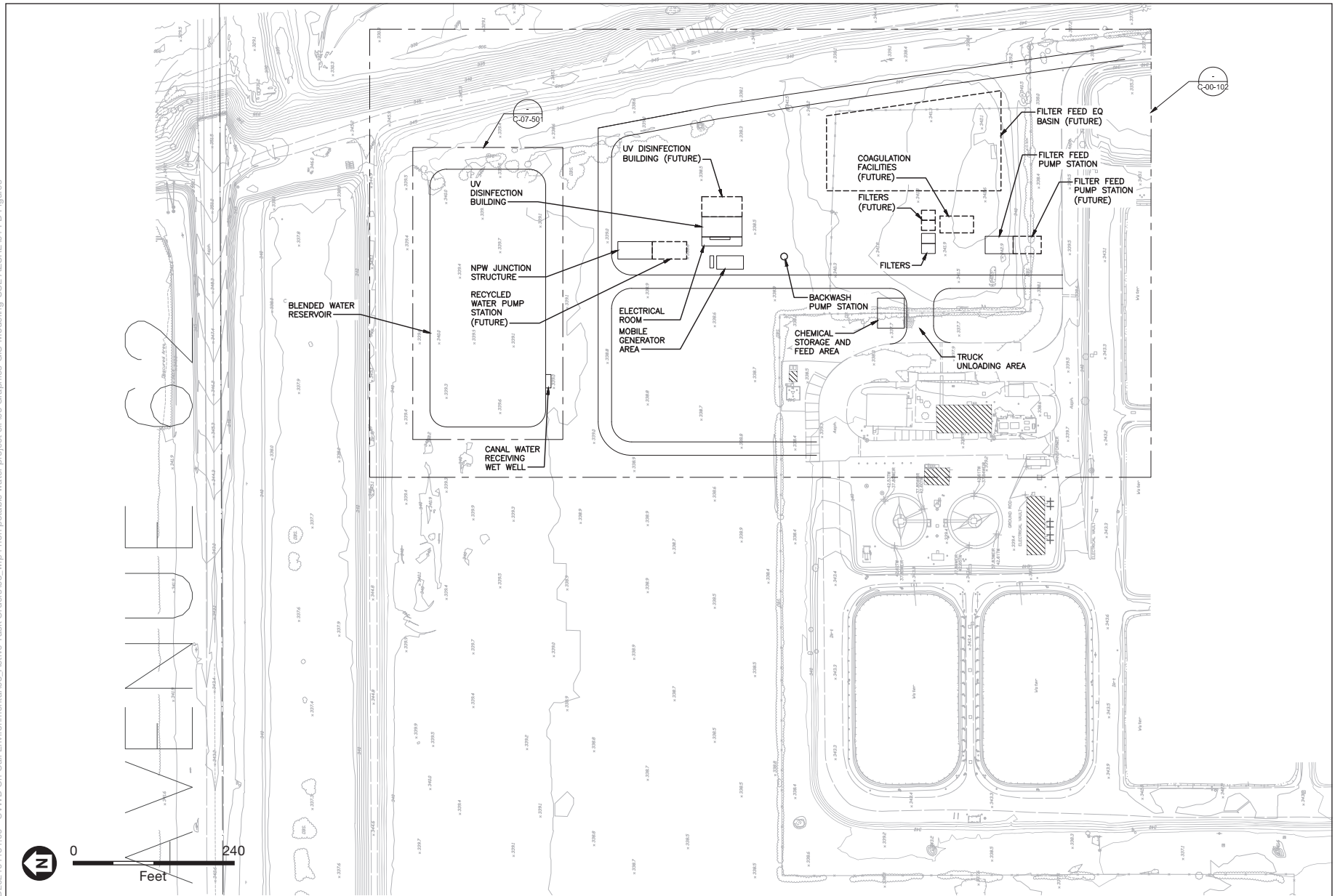
A flow meter and chemical injection area would be located immediately downstream of the FFPS and would include an aluminum sulfate (alum) injection location and turbidity and TSS sensors. Pump station effluent would pass through a flow meter and sampling station to measure water quality. Downstream of the sampling port there would be connections for recirculation pumps and an alum feed point for in-line coagulation.

Tertiary Filters

The proposed tertiary filters would include two cloth disk filtration systems contained in stainless steel tanks on skids. This filter technology would meet design criteria conditionally accepted by the California Division of Drinking Water (DDW) to use in Title 22 reuse applications. Figure 2-4a includes an illustration showing the design of the proposed tertiary filters.

Each tertiary filter tank would initially be configured to meet 1 MGD flows under Phase 1 with space for additional disks to accommodate Phase 2 buildout conditions (2.5 MGD flows) without the need for additional tanks or filter systems. The two treatment systems would provide full redundancy, allowing CVWD the operational flexibility to take one entire tank offline for maintenance.

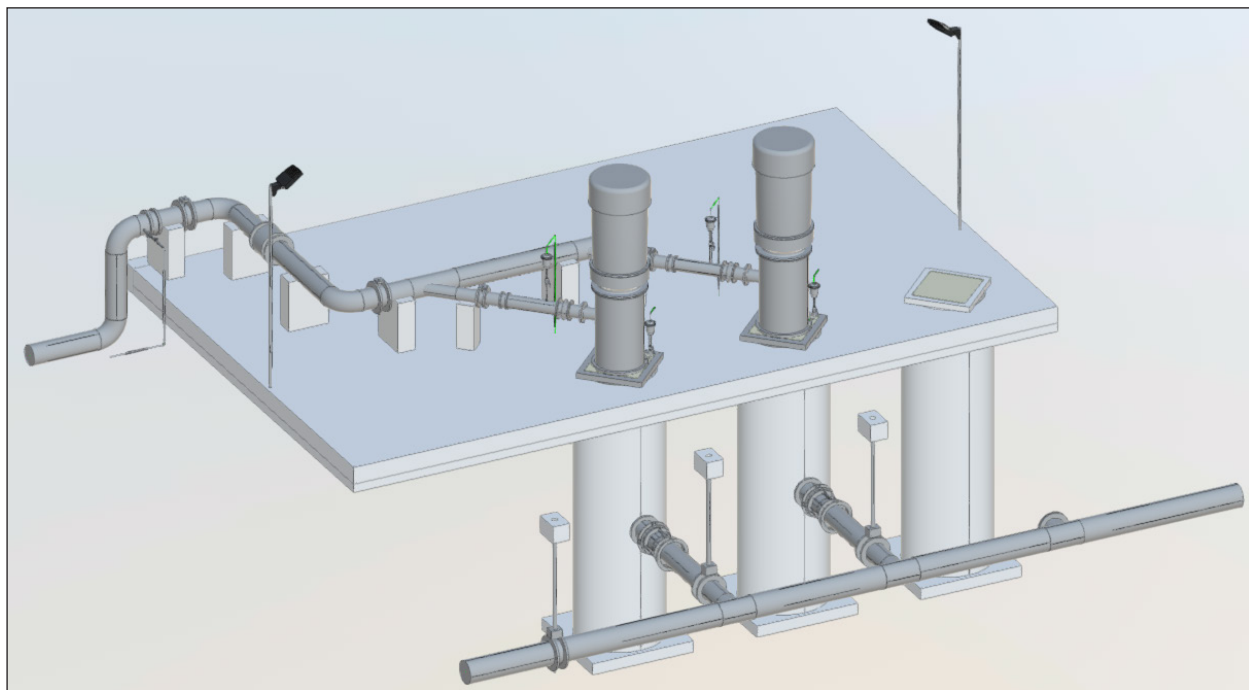
The tanks would include a sodium hypochlorite connection with the ability to prechlorinate filter influent to reduce algae growth and mitigate bacterial growth on the cloth media. Filter backwash pumps within the tanks would remove solids from the surface of the disks, settled solids in the bottom of the tank, and floating scum. The backwash system would discharge these materials to a proposed backwash and bypass pump station, described below, where they would be returned to the head of secondary treatment system.



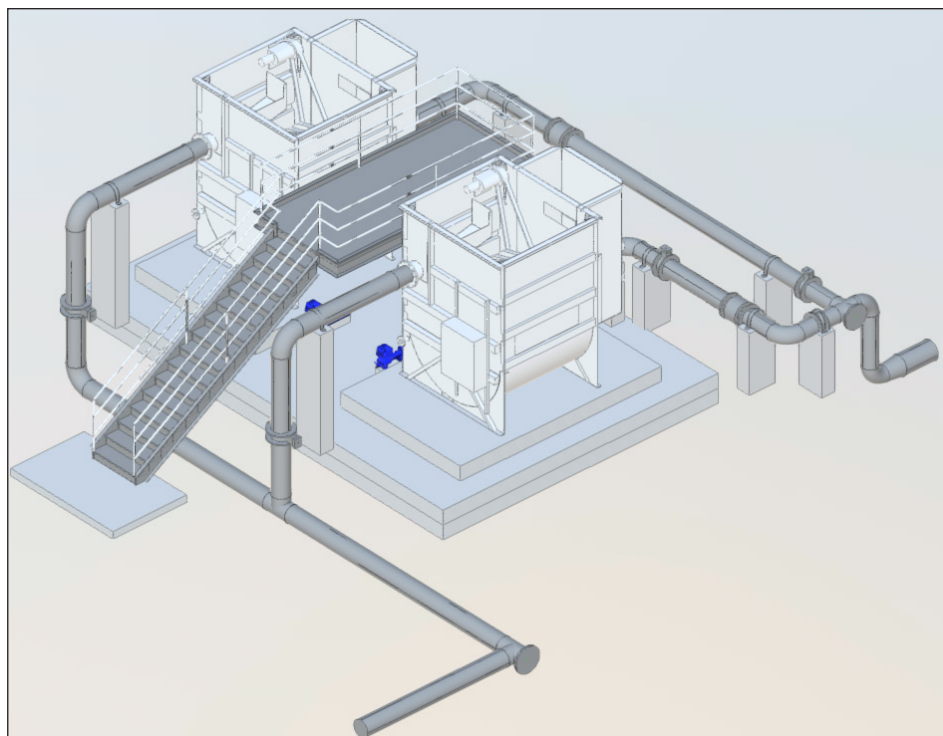
SOURCE: Black & Veatch, 2023

WRP 4 Project

Figure 2-3
Proposed Site Plan for WRP 4 Tertiary Treatment Upgrades



Filter Feed Pump Station Isometric Rendering



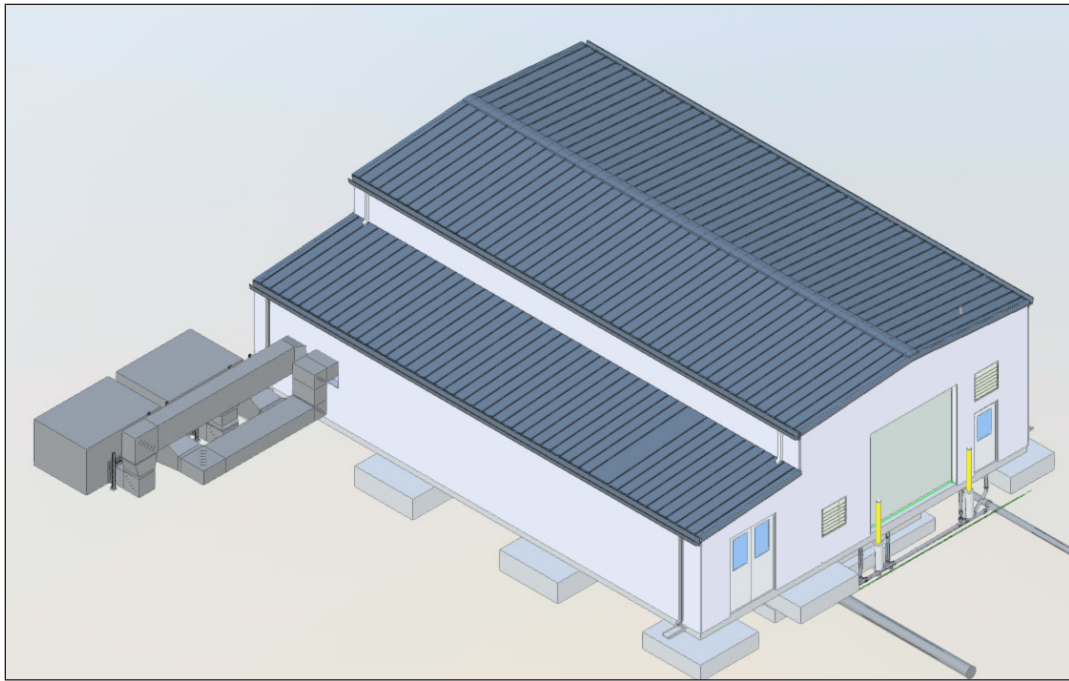
Tertiary Filters Isometric Rendering

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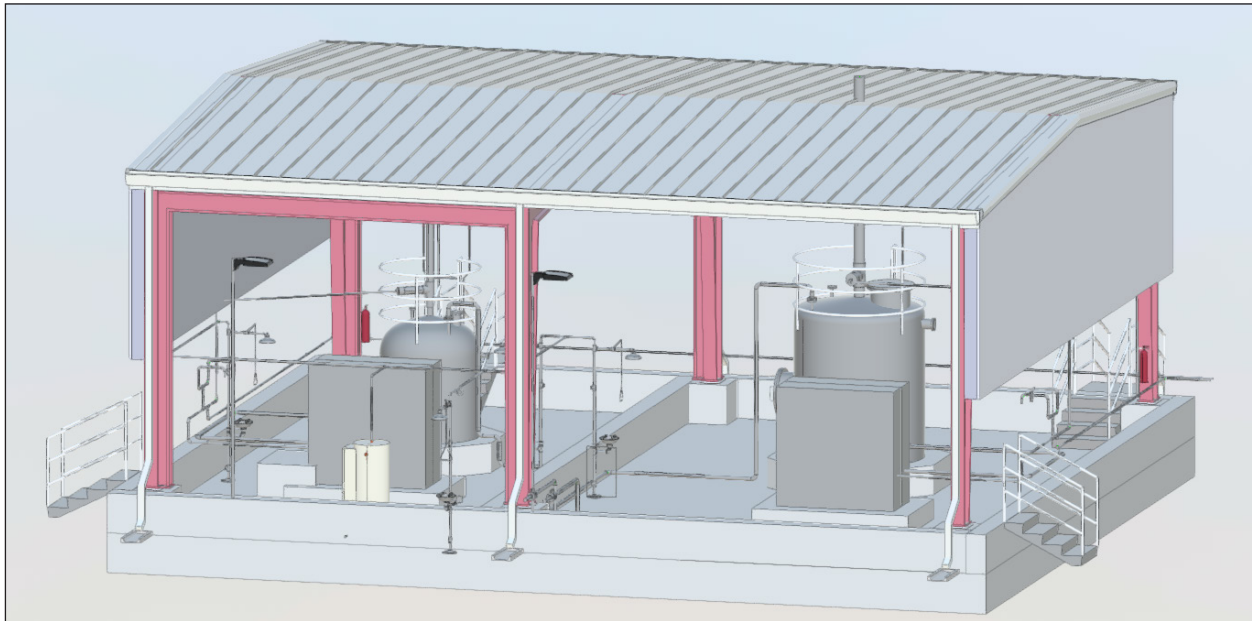
SOURCE: Black & Veatch, 2023

WRP 4 Project

Figure 2-4a
Proposed Tertiary Treatment Facilities



UV Disinfection Building and Electrical Room Isometric Rendering



Chemical Storage and Feed Isometric Rendering

SOURCE: Black & Veatch, 2023

WRP 4 Project

Figure 2-4b
Proposed Tertiary Treatment Facilities

Backwash and Bypass Pump Station

The two pumps and wet well associated with the proposed backwash and bypass pump station would be sized to handle redirecting effluent to the headworks influent manhole during off-spec events. Motor activated valves would divert flows from the proposed FFPS to the proposed backwash and bypass pump station. Additionally, overflow at the proposed tertiary filters would be combined with diverted flows downstream and returned to the headworks influent manhole.

UV Disinfection Building and Electrical Room

A new two-channel UV system would be constructed to provide Title 22 disinfection of filter effluent and would be housed within a new UV disinfection building. The proposed two-channel UV disinfection system would provide full redundancy, allowing CVWD operations to take a channel offline for cleaning or maintenance with no impact to treatment capacity. Each UV channel would initially contain three low pressure UV banks, each with 12 lamps providing a UV dose of 100 ml/cm², designed to treat up to 1.0 MGD during Phase 1, and open slots for two additional banks in each channel to allow future disinfection of up to 2.5 MGD during Phase 2. The UV system would be connected via buried piping from the filter effluent channels to the recycled water junction structure.

Additionally, a new electrical room would be adjoined to the proposed UV Disinfection Building. The proposed electrical room would be sized with adequate space for all electrical and communication equipment required for up to a 2.5 MGD system and would include a fire suppression system. The electrical room would include exterior space for a mobile generator, a new Imperial Irrigation District (IID) transformer, and pad mounted HVAC equipment.

The UV building and electrical room would be a 43-foot by 60-foot pre-engineered metal building with a parapet and exterior overhang similar in architectural and structural design to the existing headworks screening building located onsite. Figure 2-4b provides a digital illustration of the structure.

Non-Potable Water Junction Structure

The UV effluent would flow via a 16-inch gravity line to a proposed recycled water junction structure located northwest of the UV building. Two 24-inch lines would exit the recycled water junction structure: one connection would be equipped with a flow meter and gravity feed to Phase 1 customers via the existing Lateral 99.8-0.51, and the other consists of a two-way gravity pipe between the recycled water junction structure and the proposed blended water reservoir.

The proposed junction structure itself would be a covered, concrete wet well with motorized slide gates at the inlet and exit to Lateral 99.8-0.51. In the case of an off-spec water event, operations would be able to quickly close the gates to prevent water from flowing to customers. A third, motor-operated slide gate would connect the junction structure to the blended water reservoir during low demand times

Blended Water Reservoir

The blended water reservoir would be an in-ground, High-Density Polyethylene (HDPE)-lined and covered earthen bladder with a total capacity of 6 MG, comprised of two independent 3 MG reservoirs. The blended water reservoir would serve as storage and provide consistent head to the proposed recycled water distribution pipelines, ensuring customers have water on demand without requiring the tertiary plant

to operate on-demand, which can be operationally challenging. This configuration would allow WRP 4 to treat and store water as the reservoir volume permits.

As described above, the proposed blended water reservoir would connect to the proposed recycled water junction structure via a 24-inch equalization pipe capable of directing flows back and forth between both structures. During times of limited demand, the reservoir would begin filling automatically when the recycled water junction structure wet well reaches a certain water elevation. During high demand, flow between the reservoir and the junction structure would reverse direction and the storage pond would drain back into the wet well.

Canal Water Receiving Wet Well

If there is not enough water in the blended water reservoir to meet high flow demands, raw canal water from Lateral 99.8-0.51 would flow by gravity into the proposed wet well. An air gap between the influent pipe and maximum water surface elevation would be installed to prevent any backflow into the canal. The proposed wet well would be rectangular to allow any solids in the raw canal water to settle before entering the reservoir. An elevated pipe from the wet well would direct raw water to blend with the recycled water in the Blended Water Reservoir and backflow to the junction structure before it is pumped to Lateral 99.8-0.51.

Chemical Storage and Feed Area

The proposed project would include new in-line mixing of alum upstream of the proposed tertiary filters to reduce turbidity, as previously discussed in the description of the FFPS, above. Storage of the alum would be in one 734-gallon bulk tank (4-foot in diameter and 6-feet tall). Additionally, sodium hypochlorite would be used for disinfection with injection points at the tertiary filters, a new chlorine contact basin, and junction structure. Storage of sodium hypochlorite would be in one 9,300-gallon bulk tank (12 feet in diameter and 11-feet tall) sized to meet Title 22 disinfection requirements. It is anticipated that 3 additional tanks would be required to store sufficient sodium hypochlorite to meet Title 22 requirements during Phase 2. It is anticipated that additional sodium hypochlorite storage and injection facilities will be required for future Phase 3 flows of up to 10 MGD. The feed systems for both the alum and sodium hypochlorite would include two metering pumps (1 duty, 1 standby) of similar make to those used at WRP 7 and WRP 10, located on elevated pedestals.

The storage facilities would be on a concrete pad and under a canopy with side panels alongside the necessary feed equipment. A truck unloading station with emergency eyewash facilities and showers would be provided for both systems. Each storage area would include a containment curb and slope to a sump pit. The location of the chemical storage and feed area is shown in Figure 2-3 and digital illustrations of the storage facility are shown in Figure 2-4b.

Recycled Water Delivery Pipelines

The proposed Phase 1 delivery system would include approximately 11,910 linear feet of retrofitted pipelines and new pipelines to convey a blend of recycled water and canal water to three customers south of WRP 4. The three identified customers currently receive canal water from an existing lateral, Lateral 99.8-0.51, and average monthly canal water usage currently ranges from 0.7 MGD to 2.7 MGD. The Phase 1 delivery system would deliver up to 1.0 MGD.

The proposed project would repurpose the existing lateral segment (built in 2019) along Fillmore Street and north of Avenue 64 to deliver recycled water rather than abandoning it and constructing a new parallel delivery system. The existing lateral would be severed on the west side of the WRP 4 tertiary upgrade area and redirected to the new blended water reservoir (see Figure 2-1). At the point of disconnect, canal water from the northern portion of the lateral would flow to WRP 4 for blending with tertiary effluent and then would discharge to the downstream portion of the lateral for delivery to customers via a gravity fed system.

Additionally, a new closed pipe system matching the existing piping north of Avenue 64 would be installed to replace the existing system south of Avenue 64. Replacement of this segment would ensure Title 22 regulatory compliance and prevent permit violations such as uncontrolled discharges, excessive leaking, and discharging excess flow. The new customer connections would include flow and pressure control monitoring devices to match recycled water connections at other CVWD treatment facilities, such as WRP 7 and WRP 10.

2.5.2 Phase 2 Project

WRP 4 Tertiary Treatment System Upgrades

The discussion of the proposed Phase 1 treatment facilities provided in Section 2.5.1, *Phase 1 project*, above, identified facilities that would be strategically designed to allow expansion of up to 2.5 MGD under Phase 2 with minor equipment upgrades, which are summarized below.

Filter Feed Pump Station

Upgrades to the FPPS under Phase 2 would include the addition of 1 new vertical turbine pump within the space provided in the existing pump station as part of Phase 1. No additional earthwork would be required.

Flow Meter and Chemical Injection Area

The flow meter and chemical injection facilities would operate similarly to Phase 1 except for increases to the rate of alum injection as required to reduce turbidity for 2.5 MGD. No additional earthwork or equipment installation would be required.

Tertiary Filters

The two tertiary filter tanks constructed as part of Phase 1 would be upgraded to include the four additional discs required to treat up to 2.5 MGD. In addition, three new tanks would be constructed adjacent to the two original tanks to allow for expansion of up to 10 MGD during Phase 3. The two original tanks and three new tanks would encompass an approximately 5,500 square-foot area.

UV Disinfection Building and Electrical Room

The UV disinfection system proposed under Phase 1 includes two channels with three UV banks and space for two additional future banks in each channel. During Phase 2, 15 additional banks would be added to the UV disinfection system. In addition, three new channels would be constructed in a new UV disinfection building to ensure disinfection continues to meet Title 22 requirements under Phase 3. The

space provided in the adjoining electrical room proposed as part of Phase 1 would accommodate the additional electrical equipment required for Phase 2 operations.

Non-Potable Water Junction Structure

During Phase 2, the recycled water junction structure would be retrofitted to house three vertical turbine pumps (2 duty, 1 standby) to supply recycled water to customers. No additional earthwork would be required.

Chemical Storage and Feed Area

The storage area for sodium hypochlorite would be upgraded during Phase 2 to include 3 additional 734-gallon tanks. The additional tanks are necessary to allow sodium hypochlorite to be injected at rates that meet Title 22 disinfection requirements during expansion to 2.5 MGD under Phase 2.

Recycled Water Delivery Pipelines

Phase 2 of the proposed project would include installation of recycled water pipelines to deliver up to 2.5 MGD recycled water (refer to Figure 2-1). The Phase 2 recycled water delivery system would include 33,262 linear feet of force mains. The recycled water pipelines would be separate from the existing gravity-fed irrigation system shown in Figure 2-2 and would provide recycled water to customers. Ultimately, connections would be made from the proposed Phase 2 force mains to recycled water customers. CVWD will conduct a future customer investigation to identify the optimal alignment to connect proposed force mains to customers, which will include detailed hydraulic modeling for system sizing and future expansion. This EIR analyzes the extent of the recycled water delivery system as currently known and envisioned on Figure 2-1.

2.5.3 Phase 3 Project

WRP 4 Upgrades

WRP 4 would be upgraded in the future to support buildout conditions of up to 10 MGD. All facilities would be installed within the tertiary treatment upgrade boundary identified in Figure 2-1 and would be similar in size and scope to the facility upgrades detailed above under Phase 1 and 2.

Recycled Water Delivery Pipelines

Phase 3 of the proposed project would include installation of approximately 53,290 linear feet of force mains to deliver up to 10 MGD of tertiary treated recycled water to customers, as shown in Figure 2-1. Due to the elevation difference in the Phase 3 service area east of the CVSC, the system would have higher head requirements. Thus, the volume and elevation of the Phase 1 blended water reservoir constructed at WRP 4 would be insufficient for Phase 3. While the Phase 1 tank would continue to be utilized as a surge tank, Phase 3 would include the addition of one additional offsite reservoir to be installed at the Phase 3 high point in order to continue providing constant system pressure. The tank would be made of steel, 35-feet in diameter and 15-foot tall, and sized to hold a maximum of 107,000 gallons. This blended water reservoir is shown in Figure 2-1.

2.6 Construction

2.6.1 Pipelines

The proposed recycled water pipelines would primarily be installed within public rights-of-way. The construction equipment needed for pipeline installation would include: backhoe, excavator, loader, dump trucks, water trucks, pipe trailers, crew vehicles, shoring equipment, and plate compactor. Construction of the proposed pipelines would involve conventional cut and cover trenching technique. The trenching activities would include saw cutting of the pavement where applicable, trench excavation, shoring, pipe installation, trench backfill and compaction, site restoration/pavement replacement, as applicable, and testing. The conceptual alignment of the proposed recycled water delivery pipelines was developed with consideration for existing CVWD rights-of-way and constructability factors for crossing major channels, highways, and railroads. It is expected that trenchless directional drill construction methods would be used for all crossings. Trench construction would be used for installation in other areas and the depth of cover would be between 3 to 8 feet. The proposed pipelines would be 30-inches in diameter at maximum, but pipeline diameters may be 18-inches in diameter in areas farther away from WRP 4.

The construction corridor would be wide enough to accommodate the trench and to allow for staging areas and vehicle access. Trenches would be backfilled at the end of each work day or temporarily closed by covering the areas with steel trench plates. Although not expected, localized trench and pipeline dewatering may be required depending on location. Water collected from dewatering would be reused for dust control purposes during construction, as needed. Excavated soils would be reused as backfill and otherwise disposed of offsite at a local disposal facility.

Approximately 5 to 10 workers would be required during various phases of pipeline installation. Work within roadways would potentially require partial or full closure of traffic lanes. Full closure of rights-of-way may be required, particularly for rights-of-way with a limited number of lanes. Traffic control would be necessary during pipeline construction within roadways. Typically, two to four workers would be required for traffic control during pipeline installation. Equipment necessary for traffic control includes changeable message signs, delineators, arrow boards, and K-Rails. Construction staging would occur within the rights-of-way along the pipeline routes.

2.6.2 WRP 4 Facilities

Construction of modifications at WRP 4 would require use of the following pieces of equipment: backhoe, excavator, loader, dump trucks, water trucks, pipe trailers, crew vehicles, shoring equipment, and plate compactor. Construction would entail site clearing/preparation, grading, excavation and earth moving, installation of facilities, paving, testing, and start up.

Installation of facilities would involve excavation at differing levels, with maximum excavation depths of 11-feet below ground surface. The aboveground facilities would be finished with a non-reflective material and painted with an earth-tone color to blend in with the surrounding landscape and vegetation. A total of up to 5 to 10 workers would be needed per day for construction activities at WRP 4. Construction staging would occur within the existing WRP 4 boundaries as shown on Figure 2-1.

2.6.3 Construction Schedule

The proposed project will be implemented in three phases as further described below. The project implementation schedule provided below is subject to the availability of grant funds and the approval of a Wastewater Change Petition.

1. The Phase 1 project would design and construct a 1 MGD tertiary treatment facility and a distribution pipeline to deliver a blend of recycled water and canal water to three large agricultural customers south of WRP 4. It is currently at the 60% design stage, and CVWD anticipates completing the final design in early 2026, followed by bidding for construction in spring 2026, with an estimated construction completion by the end of the year 2027.
2. The Phase 2 project would expand the tertiary treatment capacity to 2.5 MGD and construct additional distribution pipelines to connect new customers in the immediate vicinity of WRP 4, and will be carried out over a three-year period from 2028 through 2030.
3. CVWD will monitor the recycled water consumption and demand following Phase 2 completion, to determine the feasibility of connecting new recycled water users. It is anticipated that Phase 3 project will be constructed between 2031 and 2045.

2.7 Operation and Maintenance

2.7.1 Proposed Project Facilities

After construction is completed and the facility upgrades are commissioned and operating, there would be operational traffic associated with worker commute, chemical deliveries, and screenings removal. While the proposed treatment processes are not chemical intensive, regular deliveries of various chemicals would be required. It is estimated there would be an average of five chemical truck deliveries per month and four truck trips per week for screenings and grit removal. No additional CVWD operators would be required to operate the proposed modifications. On occasion, unscheduled maintenance or repair of facilities may be required periodically throughout the lifetime of proposed equipment to be installed as part of the proposed project. Pipelines would be contained entirely underground and would require minimal maintenance; no employees would need to access the facilities.

2.7.2 Reclamation and Reuse

The tertiary treated water would meet all the requirements for unrestricted irrigation described in the 22 CCR 60001 *et seq.* recycled water regulations. It is anticipated that 100% of the flow at the WRP 4 will receive tertiary treatment for use as non-potable recycled water for irrigation under Phase 3. If the full level of treatment required under any of the three phases is not achieved for any reason, then treated effluent would be directed to the CVSC as per existing conditions.

2.7.3 Energy Use

The proposed project would require operation of expanded facilities at WRP 4 that would require additional energy. Operation of Phase 1 would require approximately 4 MWh/yr of additional energy, while Phase 2 would require approximately 8 MWh/yr of energy more than existing, and Phase 3 would require approximately 30 MWh/yr of energy more than existing. In total, the proposed project would involve an increase in energy of approximately 30 MWh/yr.

2.8 Discretionary Actions, Approvals, and Permits

Table 2-2 summarizes the project approvals and permit requirements from CVWD and Responsible Agencies. This EIR may be used for future project approvals from CVWD and Responsible or Trustee Agencies.

TABLE 2-2
APPROVALS AND DISCRETIONARY PERMITS POTENTIALLY REQUIRED

Agency	Type of Approval	Needed For
State Water Resources Control Board (SWRCB)	- Title 22 Engineering Report Approval - CA Water Code 1211 Wastewater Change Petition - General Order Construction Stormwater Discharge NPDES Permit Coverage	- Non potable water reuse system - Change in use and point of discharge for wastewater discharge - Construction activities greater than 1 acre
Regional Water Quality Control Board (RWQCB)	- NPDES Permit - CWA 401 Certification	- WRP4 discharge to the CVSC - Placing fill in waters of US (If needed for pipeline drainage crossings)
South Coast Air Quality Management District (SCAQMD)	ATC/PTO	Treatment process equipment and storage
California Department of Fish & Wildlife (CDFW)	Fish and Game Code Section 1602	Placing fill in jurisdictional waters (If needed for pipeline drainage crossings)
United States Army Corps of Engineers (USACE)	CWA 404 Permit	Placing fill in waters of US (If needed for pipeline drainage crossings)
USBR	Lateral repurposing	Repurposing of two BOR laterals branching from Mile Post 99.8 and 98.0 of the Coachella Canal (Lateral 99.8 and Lateral 98.0).
CVWD	Discretionary Project Approval	CVWD decision on whether or not to approve the Water Reclamation Plant No. 4 Non-Potable Water Improvements Project

2.9 References

California Department of Water Resources (DWR), 2023a. *State Water Project Delivery Capability Report*.

DWR, 2023b. *California Water Plan Update 2023 (Public Review Draft)*. Sacramento, CA.

Coachella Valley Water District, 2023. *Preliminary Design Report for the Water Reclamation Plant No. 4 Non-Potable Improvements*. Prepared by Black & Veatch. February 2023.

Indio Subbasin Groundwater Sustainability Agencies, 2021. *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan*.

Southern California Association of Governments (SCAG), 2020. *Connect SoCal: The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*.

U.S. Bureau of Reclamation (USBR), 2021. *Colorado River Basin Climate and Hydrology: State of the Science Report*.

CHAPTER 3

Environmental Setting, Impact Analysis, and Mitigation Measures

3.0 Introduction to the Analysis

In compliance with CEQA Guidelines Section 15125 and 15126, Chapter 3 of this Draft EIR provides an analysis of the potential significant environmental effects of the Water Reclamation Plant No. 4 Non-Potable Water Improvements Project (proposed project) with respect to existing baseline conditions. The baseline environmental conditions for the analysis included within this Draft EIR are generally from October 2023 when the Notice of Preparation (NOP) was published, except where otherwise noted in each environmental section. The following environmental topics are assessed in detail in this chapter in accordance with CEQA Guidelines Appendix G:

- Aesthetics
- Agriculture
- Air Quality and Greenhouse Gas Emissions
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation
- Tribal Cultural Resource

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 Initial Study prepared for the proposed project (see **Appendix NOP** of this Draft EIR) determined that several environmental topics from CEQA Guidelines Appendix G do not require further analysis in this Draft EIR since no significant impacts could occur as a result of the proposed project. In accordance with CEQA Guidelines Section 15128, the environmental topics eliminated from further consideration are listed below, and the reasoning for finding of non-significance is explained in the Initial Study contained in Appendix NOP of this Draft EIR:

- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems
- Wildfire

3.1.1 Format of the Analysis and CEQA Tiering Process

Sections 3.1 through 3.13 include discussions of the environmental impacts that could occur following approval and implementation of the proposed project. For the 13 environmental topics included in this Chapter 3, each section includes an environmental setting, regulatory setting, impact analysis, mitigation measures (if required), and references, as further discussed below.

“Significant effect” is defined by the 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.”

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 an applicable threshold. Thresholds were developed using criteria from the CEQA Guidelines and Appendix G Checklist; state, federal, and local schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

The assessment of each issue area begins with any 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.

The impact analysis includes any necessary description of methodologies used and the “significance thresholds,” which are those criteria adopted by the State, County, City, or other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. Each effect under consideration for an issue area is separately listed with the discussion of the effect and its significance following. Each potentially significant impact includes a numbered impact statement and significance determination.

Following each environmental effect discussion is a list of mitigation measures (if required) and the residual effects or level of significance remaining after the implementation of the measures. In those cases, where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed as a residual effect.

In accordance with Section 15168(d) of the CEQA Guidelines, the environmental settings, regulatory settings, and impact analyses in Chapter 3 of this Draft EIR will “tier” from the Sanitation Master Plan Update 2020 Final Program EIR and will incorporate by reference general analyses, discussions, and mitigation measures from the Sanitation Master Plan Update 2020 Program EIR that apply to the program as a whole. As discussed in Chapter 1, *Introduction*, the Sanitation Master Plan Update 2020 Program EIR analyzed the environmental impacts of numerous sanitation projects (gravity pipelines, force mains, lift stations, and the five WRPs) planned between 2020 and 2040 to satisfy projected capacity needs of all sanitation facilities in CVWD’s service area. The proposed project is consistent with the sanitation projects described Sanitation Master Plan Update 2020 Program EIR. To evaluate the proposed project in

more detail, CVWD has decided to prepare a stand-alone EIR for the proposed project. This EIR has been prepared to analyze the effects on the environment and augments the analysis included in the CVWD Sanitation Master Plan Update 2020 Final PEIR to focus on proposed project-specific issues.

Environmental Setting and Baseline

In accordance with CEQA Guidelines Section 15125(a), the environmental setting contains a description of the regional and local physical environmental conditions on the project site and in the project vicinity at the time of the publication of the NOP. This environmental setting constitutes the existing or baseline physical conditions against which the implementation of the proposed project is assessed in order to determine whether an environmental impact would occur (CEQA Guidelines Section 15126.2(a)) where appropriate. Pursuant to CEQA Guidelines Section 15125(a), a future baseline condition may be selected for certain topics if doing otherwise would misrepresent the potential impacts. Since the Salton Sea and estimated inflows from all sources to the Salton Sea are projected to change in the future, this Draft EIR considers impacts to both the baseline condition at the time of the NOP as well as a reasonably foreseeable future baseline condition at the Salton Sea, including the estimated cumulative inflows to the Salton Sea from the Coachella Valley.

Regulatory Framework

Where the project site and/or surrounding area falls 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 framework section 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 potential impacts of the proposed project are evaluated.

Impact Analysis and Mitigation Measures

Significance Criteria and Methodology

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 according to Appendix G of the CEQA Guidelines.

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, indirect, and cumulative impacts associated with implementation of the proposed project, including short-term and long-term impacts.

The level of significance for each environmental impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact in relation to baseline environmental setting and the 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 CVWD would be required to prepare a Statement of Overriding Considerations, pursuant to CEQA Guidelines Section 15093, explaining why CVWD would proceed with the project in spite of the potential for a significant environmental impact.
- **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.

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.

References

References used for the analysis of each environmental topic addressed in this Draft EIR are included at the end of each section.

3.1.2 Cumulative Impacts Methodology

As indicated above, in addition to direct and indirect impacts associated with implementation of the proposed project, this Draft EIR also includes an assessment of cumulative impacts for each environmental topic evaluated in Chapter 3. The cumulative effects of implementing the proposed project in combination with other past, present, and reasonably foreseeable future projects within and around the project site are considered. The analysis of cumulative impacts considers whether other projects could cause related environmental impacts similar to the environmental impacts anticipated to occur due to the proposed project.

CEQA Guidelines Section 15130 requires that an EIR shall discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable." "Cumulative impacts" are defined as "two

or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” [CEQA Guidelines, Section 15355; see also Public Resources Code, Section 21083(b)]. Stated another way, “a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts” [CEQA Guidelines, Section 15130(a)(1)]. The definition of cumulatively considerable is provided in Section 15065(a)(3):

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.

According to Section 15130(b) of the CEQA Guidelines:

[t]he 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 other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

For the purposes of this Draft EIR, the proposed project would contribute to a cumulatively considerable and, therefore, significant cumulative impact if:

- The cumulative effects of other past, current, and probable future projects without the proposed project are not significant and the proposed project’s incremental impact is substantial enough, when added to the cumulative effects, to result in a significant impact.
- The cumulative effects of other past, current, and probable future projects without the proposed project are already significant and the proposed project would result in a cumulatively considerable contribution to the already significant effect. The standards used to determine whether the contribution is cumulatively considerable include the existing baseline environmental conditions and whether the proposed project would cause a substantial increase in impacts or otherwise exceed an established threshold of significance.

Geographic Scope of Cumulative Impacts

The geographic area affected by the proposed project and the proposed project’s potential to contribute to cumulative impacts varies based on the environmental topic being analyzed. **Table 3-1** summarizes the geographic scope of the analyses for cumulative impacts for each environmental resource area discussed in Chapter 3 of this Draft EIR.

TABLE 3-1
GEOGRAPHIC SCOPE OF CUMULATIVE IMPACT ANALYSES

Environmental Issue	Geographic Scope of Cumulative Impact Analyses
Aesthetics	Foreground views immediately surrounding the proposed facilities; long-distance viewshed views within the Coachella Valley
Agricultural and Forestry Resources	Coachella Valley
Air Quality and Greenhouse Gas Emissions	South Coast Air Basin (Air Quality) and global
Biological Resources	Biological Study Area identified for the proposed project
Cultural Resources	Coachella Valley and surrounding areas as manifested through cultural resources
Energy	Service areas for Southern California Edison (SCE) and Imperial Irrigation District (IID)
Geology and Soils	Geologic sediments and formations within the Coachella Valley
Hazards and Hazardous Materials	WRP 4 project site and pipeline rights-of-way
Hydrology and Water Quality	Project site and downstream receiving waters including the Coachella Valley Stormwater Channel (CVSC) and the Salton Sea
Land Use and Planning	Coachella Valley
Noise	Areas within 1,000 feet of project facilities
Transportation	Local roadways, public transit systems, bicycle, and pedestrian facilities within the project area
Tribal Cultural Resources	Coachella Valley and surrounding areas as manifested through tribal cultural resources

Temporal Scope of Cumulative Impacts

The cumulative projects considered in this analysis include those that have recently been completed, are currently under construction, or are reasonably foreseeable (e.g., for which an application has been submitted). A project's schedule is relevant to the consideration of cumulative short-term construction-related impacts and long-term operational impacts. For future cumulative projects, implementation schedules are often broadly estimated and can be subject to change. However, for purposes of evaluating both short-term and long-term cumulative impacts of the proposed project, this analysis assumes future cumulative projects would be implemented concurrently with the proposed project: Phase 1 is planned to be constructed from June 2027 through March 2029. Phase 2 would be implemented in approximately 2035 and Phase 3 would be implemented in approximately 2045.

Method of Analysis

CEQA Guidelines Section 15130 provides that the following approaches can be used to adequately address cumulative impacts:

- **Adopted Plans Method** — A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

Because the implementation of the proposed project would occur in phases over a 20-year timeframe, this EIR utilizes the summary of projections approach. Section 15130(d) of the CEQA Guidelines states that the summary of projections could be contained in an adopted local, regional or statewide plan such as a general plan, regional transportation plan or plans for the reduction of greenhouse gas emissions. Below is a summary of relevant planning documents related to the proposed project.

The County of Riverside Eastern Coachella Valley Area Plan (County of Riverside 2021) indicates that development within the eastern Coachella Valley will continue to be concentrated in key areas rather than spread uniformly throughout the county. According to the plan, “the land use plan is designed to maintain the predominantly rural, agricultural, and open space character of the Eastern Coachella Valley and to focus growth adjacent to where it currently exists and in areas where growth is desirable in order to bolster the economic base of the local communities.” In the community of Thermal, considerable acreage “has been designated Light Industrial and Heavy Industrial. Higher density residential designations are provided in Thermal and in an area east of the airport. Commercial Tourist designations are provided in the vicinity of the new State Route 86/State Route 111 interchange.” Accordingly, the areas surrounding the proposed project are assumed to maintain their rural agricultural nature.

CVWD’s Sanitation Master Plan Update 2020 (CVWD 2020) Program EIR, from which this EIR is tiered, plans for the expansion and upgrades of the sewer system that are necessary to accommodate future growth anticipated in the Coachella Valley. The programmatic effects of implementing modifications at WRP 4 were accounted for consistent with the Sanitation Master Plan Update 2020 (CVWD 2020).

The *2022 Indio Subbasin Water Management Plan Update, Sustainable Groundwater Management Act Alternative Plan (Indio Subbasin Groundwater Sustainability Agencies [GSA] 2021)*, referred to here as the 2022 WMP, was prepared to comply with requirements of the Sustainable Groundwater Management Act (SGMA) that Alternative Plans approved by California Department of Water Resources (DWR) be evaluated every 5 years. The plan describes projects and management actions (PMAs) to continue to achieve SGMA’s groundwater sustainability goals, including water conservation measures, acquisition of additional water sources, source substitution and replenishment programs, water quality improvements, and other studies and programs. The proposed project, which would produce and deliver recycled water at WRP 4, is included as PMA 18: WRP-4 Tertiary Expansion & Delivery in the 2022 WMP. The proposed project is therefore consistent with the 2022 WMP with the goal of maintaining sustainability in the basin and offsetting forecasted increases in water demands and impacts of climate change on water supplies.

The Salton Sea Management Program Long-Range Plan (Long-Range Plan) was prepared to comply with State Water Board Water Rights Order WRO 2002-0013, as revised by subsequent WRO 2017-0134, which state that an immediate, continued, and focused effort to manage a smaller but sustainable Salton Sea is necessary to protect public health and the environment. The area covered by the Long-Range Plan includes the Salton Sea, Coachella Valley, and Imperial Valley, along with all drainages into the Salton Sea (DWR and CDFW 2022). The goal of the Long-Range Plan is to protect or improve air quality, water quality, and wildlife habitat to prevent or reduce health and environmental consequences anticipated from the long-term recession of the Salton Sea. To achieve this goal, the following objectives must be met:

- Protect or improve air quality to reduce public health consequences.

- Protect or improve water quality to provide opportunities for beneficial uses and reduce environmental consequences.
- Restore long-term stable aquatic and shoreline habitat to historic levels and diversity of fish and wildlife that depend on the Salton Sea.

The Long-Range Plan included modeling that analyzed the sustainable baseline conditions based on the anticipated reliable inflows into the Salton Sea, and then evaluated the technical aspects of various restoration concepts and scenarios. The methods of analysis included the projected hydrology (i.e., what is the reliably expected volume of future inflow), projected salinity and elevation, an evaluation of habitat and air quality, and a greenhouse gas analysis.

Relative to the proposed project, the modeling conducted for the Long-Range Plan included the actions described in the 2022 WMP. (Groundwater Sustainability Agencies, 2021). The planned actions specifically include treating and recycling effluent from WRP 4 for use as irrigation water for local farms and other irrigation uses.

3.1.3 References

Coachella Valley Water District, 2022. *Coachella Valley Water District Sanitation Master Plan Update 2020, Final Program Environmental Impact Report (State Clearinghouse Number 2019090307)*. November 2022.

County of Riverside, Eastern Coachella Valley Area Plan, 2021. Available at: <https://planning.rctlma.org/sites/g/files/aldnop416/files/migrated/Portals-14-genplan-GPA-2022-Compiled-ECVAP-4-2022-rev.pdf>, February 1, 2024.

California Department of Water Resources and California Department of Fish and Wildlife (DWR and CDFW), 2022. *Salton Sea Management Program, Salton Sea Long-Range Plan, Public Draft*. December.

CVWD, Sanitary Sewer Master Plan Update 2020 PEIR, 2022. Accessed <https://www.cvwd.org/492/Sanitation-Master-Plan-Update-2020>, February 1, 2024.

Indio Subbasin Groundwater Sustainability Agencies, 2021. 2022 Indio Subbasin Water Management Plan Update. Prepared by Todd Groundwater and Woodard & Curran. Adopted December 2021.

3.1 Aesthetics

This section addresses the potential impacts related to aesthetic and visual resources associated with implementation of the proposed project. This section includes: a description of existing visual resources and aesthetic conditions on the project site; a summary of applicable regulations related to aesthetics; and an evaluation of the potential for the proposed project to result in environmental impacts related to aesthetic and visual resources on the proposed project site and in the surrounding area. In addition, an evaluation of the potential cumulative impacts is provided.

3.1.1 Regulatory Framework

Federal

National Scenic Byways Program

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. The program was established under the Intermodal Surface Transportation Efficiency Act of 1991, and was reauthorized in 1998 under the Transportation Equity Act for the 21st Century. Under the program, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational, and scenic qualities. The only National Scenic Byway located within southern California is the Arroyo Seco Historic Parkway – Route 110 in Los Angeles County, which is not located near the project area.

State

State Scenic Highway Program

In 1963, the California legislature created the Scenic Highway Program to protect scenic highway corridors from changes that could diminish the aesthetic value of lands adjacent to the highways. The state regulations and guidelines governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. A highway is designated under this program when a local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (Caltrans) for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway. When a city or county nominates an eligible scenic highway for official designation, it defines the scenic corridor, which is land generally adjacent to and visible to a motorist on the highway.

Local

County of Riverside Eastern Coachella Valley Area Plan

The following policies of the County of Riverside Eastern Coachella Valley Area Plan (ECVAP) are related to scenic resources (County of Riverside 2021):

ECVAP 17.1 Refer to the Ridgeline policies in the Hillside Development and Slope section of the General Plan Land Use Element and the Scenic Resources policies in the General Plan Multipurpose Open Space Element.

3.1.2 Environmental Setting

Regional Setting

The community of Thermal is located in the Coachella Valley within Riverside County which is bounded on the west by the San Jacinto Mountains and the Santa Rosa Mountains and on the north by the Little San Bernardino Mountains and east by the Mecca Hills. At the southern end of the Coachella Valley is the Salton Sea. Thermal contains light industrial uses as well as some residential and commercial uses, and includes the Jacqueline Cochran Regional Airport (County of Riverside 2021).

State Scenic Highway

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. Caltrans can designate a highway as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view. A portion of Highway 74, which travels from the western boundary of San Bernardino National Forest to Highway 111 in the City of Palm Desert is an officially designated state scenic highway. Two portions of Highway 111 are eligible state scenic highways in the Coachella Valley: from Mecca south on the eastern side of the Salton Sea to Bombay Beach (approximately 1 mile from the proposed project area), and from Highway 74 in the City of Palm Desert to Interstate 10 near Whitewater (approximately 10 miles from the proposed project area) (Caltrans 2024).

Scenic Vistas and Visual Character

The County of Riverside Eastern Coachella Valley Area Plan identifies open space in the surrounding area include Joshua Tree National Park, the Santa Rosa Mountains, the Mecca Hills, the Dos Palmas Reserve, the Salt Creek Area of Critical Environmental Concern, the Painted Canyon, the Whitewater River, and the Salton Sea (County of Riverside 2021). The ridgelines of the Santa Rosa Mountains and the Mecca Hills constitute important natural resources in the area (County of Riverside 2021).

The project area includes the existing WRP 4. The area surrounding the project site is primarily agricultural land. Distant mountain views to the south and west include the Santa Rosa Mountains and views to the north and east include the Little San Bernardino Mountains and the Mecca Hills.

3.1.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to aesthetics. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.
- Create a new source of substantial light or glare which would adversely affect sensitive day or nighttime views in the area.
- Result in cumulatively considerable impacts to aesthetics.

Impact Analysis

Scenic Vistas

Impact 3.1-1: Would the proposed project have a substantial adverse effect on a scenic vista?

Scenic Resources

Phase 1, 2, and 3

The proposed project would not have a substantial adverse effect on a scenic vista. Potential impacts would be less than significant.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

Views in the project area consist mainly of residential and agricultural land uses, public facilities, open space and distant mountains vistas including the Santa Rosa Mountains to the southwest, the Little San Bernardino Mountains to the north, and Mecca Hills to the east. Construction activities would involve temporary use of equipment that would not permanently affect views of existing scenic vistas. Proposed aboveground improvements, including at the WRP 4 property and the aboveground storage tank associated with Phase 3, would be built up to 15 feet aboveground. The addition of infrastructure at the existing WRP 4 site and storage tank in a surrounding agricultural field would not be constructed at a height that could obstruct or obscure scenic views of distant mountains. The proposed recycled water pipelines would be located underground and would not be visible following construction. As a result, impacts to scenic vistas would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Scenic Resources

Impact 3.1-2: Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Phase 1, 2, and 3

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. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

There are no officially designated California State Scenic Highways in the vicinity of the project (Caltrans 2024). The nearest eligible state scenic highway is Highway 111 located approximately 1 mile east of the proposed project. However, none of the temporary construction activities or aboveground project facilities, including upgrades at WRP 4 and an aboveground storage tank to be installed as part of the Phase 3 project, would be visible from the eligible portion of the state scenic Highway 111. As a result, no impact would occur to scenic resources within a state scenic highway.

Mitigation Measures

None Required

Significance Determination

No Impact

Visual Character or Quality

Impact 3.1-3: Would the proposed project, in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Phases 1 and 2

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. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

Construction activities associated with the proposed project would result in short-term impacts to the visual character of the project area. Construction activities would require the use of construction equipment and storage of materials within the WRP 4 property and along pipeline routes. Excavated areas, stockpiled soils and other materials generated during construction could present negative aesthetic elements to the existing visual landscape. However, these effects would be temporary and would not permanently affect the existing visual character of the surrounding area. No impact would occur.

Following construction, the proposed pipelines would be located underground. After the pipelines are buried, each site would be restored to pre-construction conditions; thus, no permanent impacts to the existing visual character or quality of the project sites or surrounding area would occur. The improvements at WRP 4 would occur within the existing plant site and would not introduce features into the landscape that would contrast with the visual character in the immediate areas, because the site is already characterized with water treatment infrastructure. As a result, no impact would occur.

Phase 3

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. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

Impacts for the pipelines and upgrades at WRP 4 would be the same as described above for Phases 1 and 2.

A storage tank is proposed during the Phase 3 project on land designated for agricultural use. The storage tank would be built up to 15 feet aboveground and could introduce features into the landscape that would contrast with the visual character in the immediate area. As part of the project description, CVWD will ensure that aboveground facilities would be finished with a non-reflective material and painted with an earth-tone color to blend in with the surrounding landscape and vegetation. As a result, the design of the storage tank would minimize contrasting features within the immediate project areas; therefore, no impact would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Light or Glare

Impact 3.1-4: Would the proposed project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Phases 1, 2, and 3

The proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

Construction of the proposed project would occur during daytime hours and therefore would not require lighting for construction activities. As a result, construction activities would not introduce new sources of substantial light or glare in the project area. No impact would occur.

The proposed recycled water pipelines would be located underground and would not have the potential to create new sources of light or glare. Proposed infrastructure improvements at WRP 4 would be consistent with existing onsite infrastructure. The offsite blended water reservoir would be finished with a non-reflective material and would not contain lighting. As a result, no impact would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Cumulative Impacts

Impact 3.1-5: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to aesthetics resources?

Phase 1, 2, and 3

Existing planning documentation outlined in Section 3.0.2, *Cumulative Impacts Methodology*, and in this section identifies local and regional plans that describe or evaluate regional or area wide conditions contributing to cumulative impacts. Cumulative impacts could result in impacts to scenic vistas, visual character, and light and glare, depending on the scale and massing of aboveground facilities to be constructed. With regard to the overall visual and scenic character of the service area, cumulative development would result in more alterations of the existing visual quality of the region and could result in cumulatively significant impacts to existing scenic resources. The proposed project facilities would be installed primarily within existing facilities or as belowground features. Further, the proposed project is consistent with all applicable land use planning documents. As a result, a less than significant cumulative aesthetics impact would occur.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.1.4 References

Caltrans, 2024. California State Scenic Highway System Map.

<https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>, accessed February 6, 2024.

County of Riverside, 2021. *County of Riverside General Plan - Eastern Coachella Valley Area Plan*.

Revised September 28, 2021. Available at

<https://planning.rctlma.org/sites/g/files/aldnop416/files/migrated/Portals-14-genplan-GPA-2022-Compiled-ECVAP-4-2022-rev.pdf>. Accessed December 14, 2023.

3.2 Agriculture and Forestry Resources

This section addresses the potential impacts related to agriculture and forestry resources associated with implementation of the proposed project. This section includes: a description of existing agriculture and forestry conditions on the proposed project site and in the surrounding area; a summary of applicable regulations related to agriculture and forestry resources; and an evaluation of the potential for the proposed project to result in environmental impacts related to agriculture and forestry resources. In addition, an evaluation of the potential cumulative impacts is provided.

3.2.1 Regulatory Framework

Federal

Farmland Protection Policy Act

The purpose of the Farmland Protection Policy Act (FPPA) is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It additionally directs federal programs to be compatible with state and local policies for the protection of farmlands. For the purposes of the FPPA, farmland includes Prime Farmland, Unique Farmland, and Land of Statewide or Local Importance. Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency.

State

California Farmland Mapping and Monitoring Program

The Department of Conservation (DOC), under the Division of Land Resource Protection, has established the DOC Farmland Mapping and Monitoring Program (FMMP). The FMMP monitors the conversion of the state's farmland to and from agricultural use. The FMMP maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" every two years. The FMMP map series identifies eight classifications and uses a minimum mapping unit size of 10 acres. The FMMP also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. Important farmlands are divided into the following five categories based on their suitability for agriculture:

- **Prime Farmland.** Prime Farmland is land with the best combination of physical and chemical characteristics able to sustain long-term production of agricultural crops. This land has produced irrigated crops at sometime within the four years prior to the mapping date.
- **Farmland of Statewide Importance.** Farmland of Statewide Importance is land that meets the criteria for Prime Farmland but with minor shortcomings such as greater slopes or lesser soil moisture capacity.
- **Unique Farmland.** Unique Farmland has even lesser quality soils and produces the state's leading agricultural crops. This land is usually irrigated, but also includes non-irrigated orchards and vineyards.
- **Farmland of Local Importance.** Farmland of Local Importance is land that is important to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

- **Grazing Land.** Grazing Land is land on which the existing vegetation is suited to the grazing of livestock.
- **Other Lands.** This land does not meet the criteria of any of the other categories.

Williamson Act

The California Land Conservation Act of 1965, also known as the Williamson Act, is designed to preserve agricultural and open space lands by discouraging their premature and unnecessary conversion to urban uses. Williamson Act contracts, also known as agricultural preserves, create an arrangement whereby private landowners contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. The vehicle for these agreements is a rolling term 10-year contract.¹ In return, restricted parcels are assessed for tax purposes at a rate consistent with their actual use, rather than potential market value. To cancel a Williamson Act contract, either the local government or the landowner can initiate the nonrenewal process. A “notice of nonrenewal” starts a 9-year nonrenewal period. During the nonrenewal process, the annual tax assessment gradually increases. At the end of the 9-year nonrenewal period, the contract is terminated. Contracts renew automatically every year unless the nonrenewal process is initiated. Williamson Act contracts can be divided into the following categories: Prime Agricultural Land, Non-Prime Agricultural Land, Open Space Easement, Built Up Land, and Agricultural Land in Non-Renewal.

The Williamson Act states that a board or council by resolution shall adopt rules governing the administration of agricultural preserves. The rules of each agricultural preserve specify the uses allowed. Generally, any commercial agricultural use will be permitted within any agricultural preserve. In addition, local governments may identify compatible uses permitted with a use permit.

California Government Code Section 53091

California Government Code Section 53091 specifies that water supply facilities such as those associated with the proposed project, are exempt from zoning restrictions. Specifically, Section 53091 states:

(d) Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency.

(e) Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water.

California Public Resources Code Section 12220(g)

The California Public Resources Code defines “forest land” under section 12220(g) as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Projects are subject to this code if there are any potentially significant changes to existing areas zoned as forest land.

¹ Information about the basic provisions of Williamson Act contracts can be found on the California Department of Conservation, Division of Land Resource Protection web site:
http://www.consrv.ca.gov/DLRP/lca/basic_contract_provisions/Pages/index.aspx, accessed October 17, 2012.

California Public Resources Code Section 4526

The California Public Resources Code defines “timberland” as land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others. Projects may have significant impacts to timberland if the project conflicts with existing zoning.

California Government Code Section 51104(g)

The California Government Code defines “timberland production zone” under Section 51104(g) as an area which has been zoned pursuant to Sections 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h) of the Government Code 51104. Projects may significantly impact timberland resources if the project conflicts with existing areas zoned for timberland production.

Local

Riverside County Ordinance No. 509.2

The Board of Supervisors of the County of Riverside, State of California, do ordain as follows:

Section 1. Designated suitable areas of the County of Riverside may by resolution of this Board be established as agricultural preserves pursuant to the California Land Conservation Act of 1965 (Government Code Section 51200, et seq.), to be devoted to agricultural and compatible uses.

Section 2. All agricultural preserves shall be administered pursuant to the California Land Conservation Act as 1965, as now enacted or hereafter amended, and pursuant to the following uniform rules which shall apply in all agricultural preserves now or hereafter established.

The following uses are hereby determined to be agricultural and compatible uses within an agricultural preserve, and all other uses of land are prohibited therein:

3. Gas, electric, water, and communication utility facilities, and public service facilities of like nature operated by a public agency or mutual water company.

7. Public works required for fish and wildlife enhancement and preservation.

3.2.2 Environmental Setting

The proposed project area is located in the unincorporated area of Thermal, California, within the County of Riverside. The agriculture industry is a major foundation of the historic character and economic strength of the County (County of Riverside 2019).

Regional Setting

The agriculture industry remains a major foundation of the economy of Riverside County. The Eastern Coachella Valley is one of California’s most important agricultural producing areas. The eastern portion

of the Coachella Valley is located within CVWD's Improvement District 1. The gross crop production within this area for Calendar Year 2019 was valued at \$596,307,212 (CVWD 2021). The gross farmed acreage for 2019 was 64,340 acres (CVWD 2021).

According to the California Farmland Conversion Report 2016-2018, the Department of Conservation has recorded the conversion of over 1.6 million acres of agricultural land in California to nonagricultural purposes since 1984. Between 2016 and 2018, urban development impacted approximately 37,583 acres of farmland, with Riverside County contributing the most to urbanization with the conversion of 8,139 acres (DOC 2019). Urbanization primarily took the form of new homes, commercial buildings, or solar facilities.

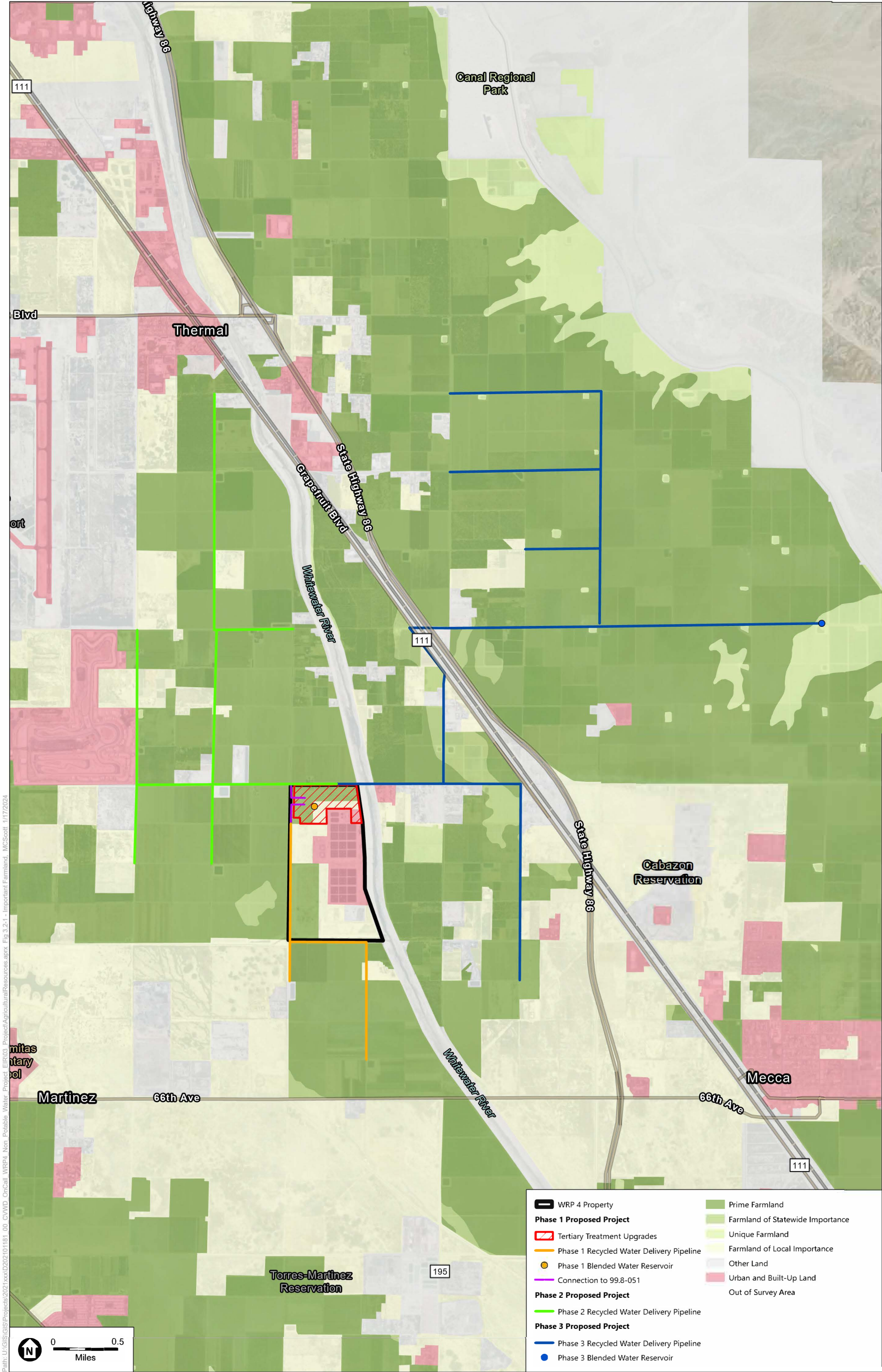
Farmland

The DOC FMMP maps and ranks important farmland in California. Although the existing WRP 4 is located on Urban and Built-Up Land, as shown in **Figure 3.2-1**, the proposed expansion of the existing WRP 4 would be located on lands designated as Prime Farmland and Farmland of Local Importance. Additionally, pipelines and storage tank would be located on and adjacent to lands that have been designated by the DOC as Important Farmland including Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance (DOC 2022a).

The Williamson Act is the State of California's primary program for the conservation of private land in agricultural and open space use. While the proposed modifications located on the existing WRP 4 property would not be located on lands enrolled under a Williamson Act contract, the proposed pipelines and storage tank would be located on and adjacent to lands that are under active Williamson Act contracts as shown on **Figure 3.2-2** (DOC 2022b).

Forestry

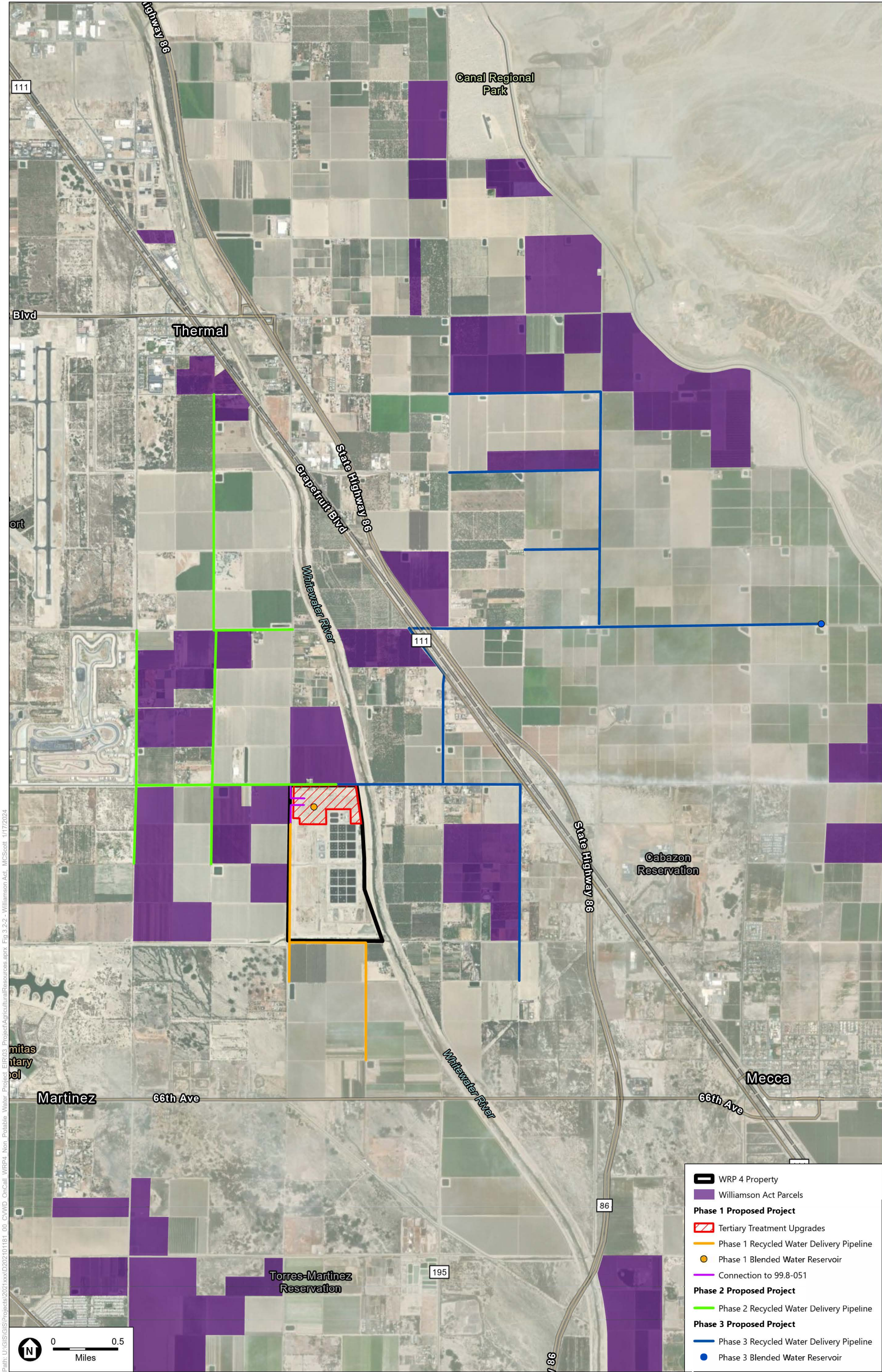
The proposed project area is not located within proximity to any National Forests. The nearest National Forest is the San Bernardino National Forest, which is located approximately 42 miles northwest of the proposed project site. Cleveland National Forest borders the County of Riverside and is located approximately 45 miles to the southwest of the proposed project site.



SOURCE: ESA, 2023; Department of Conservation, 2020

WRP 4 Project

Figure 3.2-1
Important Farmland



SOURCE: ESA, 2023; Department of Conservation, 2022

WRP 4 Project

Figure 3.2-2
Williamson Act Parcels

3.2.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to agriculture and forestry resources. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- 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.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- 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)).
- Result in the loss of forest land or conversion of forest land to non-forest use.
- 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.
- Result in cumulatively considerable impacts to agriculture and forestry resources.

Impact Analysis

Farmland Conversion

Impact 3.2-1: Would the proposed project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Phase 1, 2, and 3

While the proposed project would convert Farmland to non-agricultural use, permanent conversion would not result in a significant impact given the historic use of the site for water reclamation purposes and the scale of agricultural land within service area. Potential impacts would be less than significant.

Construction and Operation

Tertiary Treatment Facilities

The Phase 1 tertiary treatment facilities, along with the upgrades to the tertiary treatment system that would occur within Phases 2 and 3, would be implemented on the WRP 4 property, just north of the existing secondary treatment facilities. As shown on Figure 3.2-1, a portion of the proposed area for tertiary treatment upgrades during Phases 1, 2, and 3 would be located within areas designated as Prime Farmland. The Phase 1 design footprint would involve conversion of 3.3 acres of Prime Farmland; subsequent phases would involve expansion of onsite facilities. The SMP PEIR (CVWD 2020) from which this EIR tiers, concluded that up to 2.9 acres of Prime Farmland would be converted to non-agricultural use, which resulted in a less than significant impact to conservation of Prime Farmland (CVWD 2020). The proposed project would involve an increase in 0.4 acre conversion of Prime Farmland above what was identified in the SMP PEIR. The 3.3 acres would be 0.007 % of the total

47,279 acres of Prime Farmland included in CVWD's service area in 2024. Furthermore, the first phase of the WRP 4 facility was constructed in 1990, which included aerated lagoons and chlorination/sulfonation systems. The site has been actively used as a treatment site for over 35 years, with additional phases and infrastructure added to the site over time. Additionally, the proposed project's stated objective is to optimize the use of recycled water specifically for agricultural users, which would promote sustainable agricultural practices despite potential future drought conditions. Therefore, the proposed project would be consistent with the analysis in the SMP PEIR and would not significantly increase farmland conversion compared to the previously analyzed and approved land uses at the site. Impacts are considered less than significant.

Pipelines and Storage Tank

As shown in Figure 3.2-1, the proposed project pipelines would be located on and adjacent to lands that have been designated by the DOC as Prime Farmland and Farmland of Statewide Importance (DOC 2022a). The proposed new and repurposed pipelines would be located within or adjacent to public rights-of-way, where feasible. Furthermore, the proposed new and repurposed pipelines would be located underground and, following construction activities, disturbed areas would be restored to pre-construction conditions and would not prevent land from being cultivated as farmland. The proposed project would also include construction of an offsite blended water reservoir (35-feet in diameter and 15-feet tall) to support the Phase 3 expansion and would be constructed on Farmland of Statewide Importance. The proposed project would include permanent conversion of up to one acre in this area. However, due to the fact that permanent conversion would be less than an acre in size and would continue to be surrounded by farmland, and that the purpose of the project is to support farmland with irrigation water, the conversion of Farmland of Statewide Importance to non-agricultural use would not result in a significant impact. Therefore, impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Agricultural Zoning and Williamson Act

Impact 3.2-2: Would the proposed project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Phase 1, 2, and 3

The proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. Potential impacts would be less than significant.

Construction and Operation

Tertiary Treatment Facilities

The proposed Phase 1 tertiary treatment facilities, along with the upgrades to the tertiary treatment system that would occur within Phases 2 and 3, would be implemented on the existing WRP 4 property, which is zoned for light agriculture (A-1). As shown in Figure 3.2-2, the existing WRP 4 property is not covered under an active Williamson Act contract. . Per Government Code Section 53091, building ordinances of local cities or counties do not apply to the location or construction of facilities for the projection,

generation, storage, treatment, or transmission of water or wastewater. Therefore, the proposed offsite pipelines and blended water storage tank would not be subject to a conditional use permit or general plan amendment. Furthermore, the construction and improvement of water utilities fundamentally support agricultural uses. Therefore, the construction and operation of the tertiary treatment facilities would not conflict with existing zoning for agricultural use, or a Williamson Act contract. Impacts would be less than significant.

Pipelines

As shown in Figure 3.2-2, the proposed new and repurposed Phase 1, 2 and 3 pipelines would be located on and adjacent to lands that are under an active Williamson Act contract. According to Ordinance No. 509.2 Riverside County Uniform Rules for Agricultural Preserves, compatible uses within agricultural preserves include “gas, electric, water, and communication utility facilities, and public service facilities of like nature operated by a public agency or mutual water company” (County of Riverside 1988). As a result, installation of water-related and other public facilities operated by water districts, such as the proposed project, would not conflict with a Williamson Act contract and impacts would be less than significant.

Regarding conflicts with agriculture-related zoning, the proposed new and repurposed pipelines would be located within and adjacent to land that has been zoned for light and heavy agriculture by the County of Riverside. In addition, the offsite blended water reservoir that would be constructed under Phase 3 of the proposed project is located within an area zoned for light and heavy agriculture and would become a water utility feature. However, the area in which the proposed new and repurposed pipelines would be installed would be restored to pre-construction conditions following construction activities and would not prevent land from being cultivated as farmland. The offsite blended water reservoir would be located on land less than an acre in size. Furthermore, per Government Code Section 53091, building ordinances of local cities or counties do not apply to the location or construction of facilities for the projection, generation, storage, treatment, or transmission of water or wastewater. As such, the proposed pipelines and storage tank would not conflict with existing zoning for agricultural use within the County of Riverside and the impact would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Forest Land and Timberland Zoning

Impact 3.2-3: Would the proposed project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Phase 1, 2, and 3

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 impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

The proposed project does not overlap with forest lands. There is no land designated or zoned as Forest or Timberland within the proposed project area. Therefore, no impacts regarding zoning or rezoning of forest or timberlands would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Loss of Forest Land

Impact 3.2-4: Would the proposed project result in the loss of forest land or conversion of forest land to non-forest use?

Phase 1, 2, and 3

The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

The proposed project does not overlap with forest lands. There is no land designated or zoned as Forest within the proposed project area. Therefore, no impacts regarding the loss of forest land or conversion of forest land to non-forest use would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Other Changes to Farmland and Forest Land

Impact 3.2-5: Would the proposed project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Phase 1, 2, and 3

While the proposed project would convert Farmland to non-agricultural use, permanent conversion would not result in a significant impact given the scale of agricultural land within service area. Potential impacts would be less than significant.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

The Phase 1 tertiary treatment facilities, along with the upgrades to the tertiary treatment system that would occur within Phases 2 and 3, would be implemented on the WRP 4 property, just north of the existing secondary treatment facilities. As shown on Figure 3.2-1, a portion of the proposed area for tertiary treatment upgrades during Phases 1, 2, and 3 would be located within areas designated as Farmland of Local Importance. The Phase 1 design footprint would involve conversion of 3 acres of Farmland of Local Importance; subsequent phases would involve expansion of onsite facilities. The SMP PEIR (CVWD 2020) from which this EIR tiers, concluded that up to 3 acres of Farmland of Local Importance would be converted to non-agricultural use, which resulted in a less than significant impact to conservation of Farmland of Local Importance (CVWD 2020). The proposed project would be within the envelope analyzed in the SMP PEIR, and would account for 0.1% of the total 25,771 acres of Farmland of Local Importance within CVWD's service area in 2024. Given the scale of agricultural land within the service area, the impact would be less than significant. Additionally, the proposed project's stated objective is to optimize the use of recycled water specifically for agricultural users, which would promote sustainable agricultural practices despite potential future drought conditions. As a result, impacts are considered less than significant to conversion of Farmland of Local Importance to non-agricultural use.

As shown in Figure 3.2-1, the proposed project pipelines would be located on and adjacent to lands that have been designated by the DOC as Farmland of Local Importance (DOC 2022a). The proposed new and repurposed pipelines would be located within or adjacent to public rights-of-way, where feasible. Furthermore, the proposed new and repurposed pipelines would be located underground and, following construction activities, disturbed areas would be restored to pre-construction conditions and would not prevent land from being cultivated as farmland. Therefore, impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.2-6: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to agriculture and forestry resources?

Phase 1, 2, and 3

Existing planning documentation outlined in Section 3.0.2, *Cumulative Impacts Methodology*, and in this section identifies local and regional plans that describe or evaluate regional or area wide conditions contributing to cumulative impacts. Planned residential development in the proposed project area is slated for areas east of the Jacqueline Cochran Regional Airport in the community of Thermal, which is north of the proposed project area (County of Riverside 2019). While the areas in the immediate vicinity of the proposed project are planned to be maintained as agricultural land, future development identified in area plans could result in conversion of farmland to non-agricultural use. Therefore, cumulative development within the proposed project area could result in significant cumulative environmental effects due to conversion of farmland. The SMP PEIR (CVWD 2020) from which this EIR tiers, concluded that up to

2.9 acres of Prime Farmland and 3 acres of Farmland of Local Importance would be converted to non-agricultural use, which resulted in a less than significant impact (CVWD 2020). The proposed project would result in a slight acreage addition to conversion of Prime Farmland and Farmland of Local Importance, and an addition of up to one acre of Farmland of Statewide Importance, as noted above. The addition of the proposed project acreage impacts above what was identified in the SMP PEIR would not result in a significant impact given the scale of agricultural land within service area because the proposed project was already assumed to be converted to non-agricultural use. Additionally, the proposed project's stated objective is to optimize the use of recycled water specifically for agricultural users, which would promote sustainable agricultural practices despite potential future drought conditions. Because the potential agricultural impacts associated with the implementation of the proposed project would be less than significant, the project's contribution to cumulative agricultural impacts would be less than cumulatively considerable. Further, the proposed project is consistent with all applicable land use planning documents. As a result, a less than significant cumulative land use impact would occur.

Mitigation Measures

None Required

Significance

Less than Significant Impact

3.2.4 References

County of Riverside, 2019. Ordinance No. 348, Providing for Land Use Planning and Zoning Regulations and Related Functions of the County of Riverside. As amended through Ordinance No. 348.4913. Effective 12/19/19.

CVWD, 2020. Sanitation Master Plan Update 2020 Draft PEIR.

CVWD, 2021. 2019 Crop Report.

Department of Conservation (DOC), 2019. 2016-2018 California Farmland Conversion Report. Available at https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2016-2018/FCR/FCR_1618_Report.pdf. Accessed December 15, 2023.

Department of Conservation (DOC), 2022. California Important Farmland Finder. Available at <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed December 12, 2023

Department of Conservation (DOC), 2022. California Williamson Act Finder. Available at <https://maps.conservation.ca.gov/dlrp/WilliamsonAct/>. Accessed December 12, 2023.

3.3 Air Quality and Greenhouse Gas Emissions

This section addresses the potential impacts related to air quality and greenhouse gas (GHG) emissions associated with implementation of the proposed project. This section includes: a description of the existing air quality and GHG conditions in the air basin within which the proposed project is located; a summary of applicable regulations related to air quality and GHG emissions; and an evaluation of the potential for the proposed project to result in impacts to air quality and GHG emissions. In addition, an evaluation of the potential cumulative impacts is provided.

3.3.1 Regulatory Framework

Federal

Air Quality

Clean Air Act

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 (42 USC 7401 et seq.). The CAA is the comprehensive federal law that regulates air emissions in order to protect public health and welfare. The United States Environmental Protection Agency (USEPA) is responsible for the implementation and enforcement of the CAA, which establishes federal National Ambient Air Quality Standards (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).¹

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. 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}). 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 3.3-1** shows the NAAQS for each criteria pollutant. The NAAQS and the California Ambient Air Quality Standards (CAAQS) for the California criteria air pollutants (discussed below) have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including against decreased visibility and damage to animals, crops, vegetation, and buildings (USEPA 2024). In addition to criteria pollutants, Title I also includes air toxics provisions which require USEPA to develop and enforce regulations to protect the public from exposure to airborne

¹ 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 stationary facilities that emit large amount of pollutants (e.g. municipal waste incinerators, power plants). Area sources are smaller stationary sources that alone are not large emitters but combined can account for large amounts of pollutants (e.g. consumer products, residential heating, dry cleaners).

contaminants that are known to be hazardous to human health. In accordance with Section 112, USEPA establishes National Emission Standards for Hazardous Air Pollutants (HAP)s. The list of HAPs, or Toxic Air Contaminants (TAC)s, includes specific compounds that are known or suspected to cause cancer or other serious health effects.

**TABLE 3.3-1
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	9.0 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, PM_{2.5}, 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 PM_{2.5}, 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 PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The annual PM_{2.5} standard was revised again on February 7, 2024, effective May 6, 2024, from 12.0 to 9.0 µg/m³. The timeline for initial area designations begins with promulgation of the revised primary annual PM_{2.5} NAAQS, as stated in the CAA section 107(d)(1)(B)(i). Through this process, which provides for input from States and others at various stages, USEPA identifies areas of the country that either meet or do not meet the revised primary annual PM_{2.5} NAAQS, along with the nearby areas contributing to NAAQS violations.
- 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, Ambient Air Quality Standards (5/4/16). <https://ww2.arb.ca.gov/resources/documents/ambient-air-quality-standards-0>. Accessed February 2024 USEPA 2024. NAAQS Table. <https://www.epa.gov/criteria-air-pollutants/naaqs-table>. Accessed February 2024.

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 nitrogen oxides (NO_x) emissions have been lowered substantially, and the specification requirements for cleaner burning gasoline are more stringent.

Greenhouse Gases

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.

In January 2011, the USEPA began regulating GHG emissions from large stationary sources under the Prevention of Significant Deterioration (PSD) and Title V Operating Permit Programs. This was part of the CAA's efforts to control air pollution. The USEPA's GHG Tailoring Rule set initial emission thresholds for these permits based on CO₂e emissions. This rule aimed to focus on the largest emitters, ensuring that only significant sources of GHGs would need permits.

On June 23, 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group v. EPA* in which the Court ruled that the USEPA cannot treat GHGs as air pollutants for the sole purpose of determining whether a source needs a PSD or Title V permit. However, the Court upheld the USEPA's authority to require Best Available Control Technology (BACT) for GHGs from sources already subject to PSD permitting due to their emissions of conventional air pollutants.

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.

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.²

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 (DOT), 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 NHTSA subsequently issued multiple final rules, known as the Corporate Average Fuel Economy (CAFE)³ 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 DOT 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. These standards set a combined fleet wide average of 33.2 to 37.1 for the model years affected.

In February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards. 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

² 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.

³ 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.

label values of 40 mpg, while the standards they replace (the SAFE rule standards) would achieve only 32 mpg in model year 2026 vehicles.

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. For heavy-duty pickup trucks and vans, the proposed rule would increase fuel efficiency by 10 percent year over year.

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 years 2014–2018. 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. The Phase 2 standards are expected to lower CO₂ emissions by approximately 1.1 billion metric tons. 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. 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.

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

Air Quality

California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. California Air Resources Board (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 3.3-1 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 3.3-1, the CAAQS have more stringent standards than the NAAQS. The Salton Sea Air Basin (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 2024k). 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 the 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 South Coast Air Quality Management District (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 2016b). The SCAQMD states that: “SCAQMD currently does not have guidance on construction Health Risk Assessments” (SCAQMD 2016b).

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.

Greenhouse Gases

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, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall 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 EO 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 million metric tons of carbon dioxide equivalent (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

EO 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 EO 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.

Executive Order N-79-20

Executive Order N-79-20 was signed by Governor Newsom on September 23, 2020. The order directs CARB to develop and propose regulations that would require a ramp up to 100 percent in-state sales of new zero-emissions passenger vehicles (cars and trucks) and drayage trucks by 2035. The Executive Order further directs CARB to promulgate regulations that would require a ramp up to 100 percent in-state sales of medium- and heavy-duty trucks by 2045 "for all operations where feasible." The Executive Order also instructs CARB to develop and propose "strategies" (as opposed to regulations) to achieve zero emissions from off-road vehicles and equipment operations in the state by 2035. The order also directs State agencies to take a number of actions focused on the oil and gas industry, including, but not limited to, a direction to CARB to strengthen and extend the Low Carbon Fuel Standard program beyond 2030.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

In 2006, the California Legislature adopted 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 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 (California Climate Crisis Act)

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 neutrality⁴, 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.

2022 Scoping Plan for Achieving Carbon Neutrality

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. 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 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 3.3-2**.

⁴ *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.

TABLE 3.3-2
ESTIMATED STATEWIDE GREENHOUSE GAS EMISSIONS REDUCTIONS IN THE 2022 SCOPING PLAN

Emissions Scenario	GHG Emissions (MMTCO₂e)
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 3.3-3** provides a summary of major climate legislation and executive orders issued since the adoption of the 2017 Scoping Plan.

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.

TABLE 3.3-3
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.
Senate Bill 905 (SB 905) (Caballero, Chapter 359, Statutes of 2022) <i>Carbon Capture, Removal, Utilization, and Storage Program</i>	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. 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. The 2022 Scoping Plan Update modeling reflects both CCUS and CDR contributions to achieve carbon neutrality.
Senate Bill (SB 1020) (Laird, Chapter 361, Statutes of 2022) <i>Clean Energy, Jobs, and Affordability Act of 2022</i>	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 California Public Utilities Commission (CPUC), California Energy Commission (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. 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. The 2022 Scoping Plan Update describes the implications of this legislation on emissions.
Senate Bill 1075 (SB 1075) (Skinner, Chapter 363, Statutes of 2022) <i>Hydrogen: Green Hydrogen: Emissions of Greenhouse Gases</i>	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. This bill would inform the production of hydrogen at the scale called for in the 2022 Scoping Plan Update.

Bill/Executive Order	Summary
Assembly Bill 1757 (AB 1757) (Garcia, Chapter 341, Statutes of 2022) <i>California Global Warming Solutions Act of 2006: Climate Goal: Natural and Working Lands</i>	AB 1757 requires the 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. 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. This 2022 Scoping Plan Update describes the next steps and implications of this legislation for the natural and working lands sector.
Senate Bill 1206 (SB 1206) (Skinner, Chapter 884, Statutes of 2022) <i>Hydrofluorocarbon gases: sale or distribution</i>	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.
Senate Bill 27 (SB 27) (Skinner, Chapter 237, Statutes of 2021) <i>Carbon Sequestration: State Goals: Natural and Working Lands: Registry of Projects</i>	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. CNRA also must track carbon removal and GHG emission reduction benefits derived from projects funded through the registry. This bill is reflected directly in 2022 Scoping Plan Update as CO₂ removal targets for 2030 and 2045 in support of carbon neutrality.
Senate Bill 596 (SB 596) (Becker, Chapter 246, Statutes of 2021) <i>Greenhouse Gases: Cement Sector: Net-Zero Emissions Strategy</i>	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: Define a metric for GHG intensity and establish a baseline from which to measure GHG intensity reductions. • 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. The 2022 Scoping Plan Update modeling is designed to achieve these outcomes.
Executive Order N-82-20	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. 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,

Bill/Executive Order	Summary
	experts, business and community leaders, and other stakeholders from across the state. State agencies will consult the Collaborative on efforts to: • 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. 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. The Natural and Working Lands Climate Smart Strategy informs 2022 Scoping Plan Update.
Executive Order N-79-20	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: • 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. 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. The 2022 Scoping Plan Update modeling reflects achieving these targets.
Executive Order N-19-19	Governor Newsom signed Executive Order N-19-19 in September 2019 to direct the state government 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: • 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. 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: • 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. The 2022 Scoping Plan Update modeling reflects efforts to accelerate ZEV deployment.

Bill/Executive Order	Summary
Executive Order B-55-18	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: • 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. This Executive Order also calls for CARB to: • 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. 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.
Senate Bill 100 (SB 100) (De León, Chapter 312, Statutes of 2018) <i>California Renewables Portfolio Standard Program: emissions of greenhouse gases</i>	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. The 2022 Scoping Plan Update reflects the SB 100 Core Scenario resource mix with a few minor updates.
Assembly Bill 2127 (AB 2127) (Ting, Chapter 365, Statutes of 2018) <i>Electric Vehicle Charging Infrastructure: Assessment</i>	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. This bill supports the deployment of ZEVs as modeled in 2022 Scoping Plan Update.
Senate Bill 30 (SB 30) (Lara, Chapter 614, Statutes of 2018) <i>Insurance: Climate Change</i>	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.
Assembly Bill 2061 (AB 2061) (Frazier, Chapter 580, Statutes of 2018) <i>Near-Zero-Emission and Zero-Emission Vehicles</i>	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.

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.

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. Riverside County has taken the initiative in combating climate change by addressing it in the County’s General Plan, Air Quality Element, and the 2019 Climate Action Plan Update.

Regional

Air Quality and Greenhouse Gases

South Coast Air Quality Management District

The SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for the Air Basin, which includes the Coachella Valley in Riverside County. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards.

Air Quality Management Plan

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 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 Regional Transportation Plan/Sustainable Communities Strategy (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.

Noteworthy control strategies for mobile sources in the AQMP with potential applicability to reducing short-term emissions from construction activities associated with the project include strategies denoted in the 2022 AQMP as MOB-06, MOB-11, and MOB-15, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment.⁵ Descriptions of measures MOB-06, MOB-11, and MOB-15 are provided below:

- **MOB-06 – Accelerated Retirement of Older On-Road Heavy-Duty Vehicles:** This measure seeks additional emission reductions from existing heavy-duty vehicles with GVWR greater than 8,500 lbs through an accelerated vehicle replacement program with zero or low NO_x emission vehicles.
- **MOB-11 – Emission Reductions from Incentive Programs:** This control measure seeks to quantify and take credit for the emission reductions achieved through the implementation of SCAQMD administered incentive programs for SIP purposes. The South Coast AQMD has been implementing a variety of incentive programs including, but not limited to, Carl Moyer Memorial Air Quality Standards Attainment Program, Proposition 1B, Lower Emission School Bus, Community Air Protection Program, and Volkswagen Environmental Mitigation Trust. Examples of projects funded

⁵ SCAQMD, 2022 Air Quality Management Plan, pages 4-21 through 4-30, 2022.

by these programs include heavy-duty vehicle/equipment replacements, installation of retrofit units, and engine repowers. These incentive programs result in substantial emission reductions that are typically not eligible for credit in plans to attain ozone standards because they are not required by regulation. However, actual emission reductions that are realized and quantified may qualify for credit.

- **MOB-15 – Zero Emission Infrastructure for Mobile Sources:** This control measure is intended to support and accelerate the deployment of zero emission infrastructure needed for the widespread adoption of zero emission vehicles and equipment. AB 2127 estimated that the State will need 157,000 electric vehicle charging stations for medium and heavy-duty vehicles by 2030. AB 8 assessed the fueling needs for hydrogen fuel cell vehicles and found that 1,700 hydrogen stations will be needed to support 1.8 million fuel cell electric vehicles (FCEVs) statewide by 2035. The proposed measure seeks to address these concerns and identify the unique challenges and opportunities for zero emission infrastructure development in the South Coast Air Basin, particularly as it relates to zero emission medium and heavy vehicle deployments.

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 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 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). SCAQMD's general land use siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity to freeways and high-traffic roads, a 1,000-foot siting distance for sensitive land uses proposed in proximity to a major service and maintenance rail yard, and the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's 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 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.

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).⁶ 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.

⁶ 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.

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 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 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).

Regulation XIV – Toxics and Other Non-Criteria Pollutants: Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units which emit TACs or other non-criteria pollutants.

Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines: This rule applies to stationary compression ignition (CI) engines greater than 50 brake horsepower, such as emergency generators, and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.

Southern California Association of Governments

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 is the federally designated Metropolitan Planning Organization (MPO) for the majority of the Southern California region and is the largest MPO in the nation.

Pursuant to Health & Safety Code Section 40460, SCAG is responsible for preparing and approving the portions of the AQMP relating to regional demographic projections and integrated regional land use, housing, employment and transportation programs, measures and strategies (SCAQMD 2016a). With regard to air quality planning, SCAG adopted the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS) in September, 2020, which contains such regional development and growth forecasts. These regional development and growth forecasts form the basis for the land use and transportation control portions of the 2022 AQMP, and its growth forecasts were utilized in the preparation of the air quality forecasts and consistency analysis included in the 2022 AQMP (SCAQMD 2022). Both the RTP/SCS and the AQMP are based on projections that originate with local jurisdictions.

SCAG is required to adopt an SCS along with its RTP pursuant to SB 375 (Chapter 728, Statutes of 2008), which required the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state's MPOs, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. In February 2011, CARB adopted the final GHG emissions reduction targets for SCAG, within whose jurisdiction the Coachella Valley Water District (CVWD) facilities are located. SCAG's target is a per capita reduction of 8 percent for 2020 and 19 percent for 2035 compared to the 2005 baseline (CARB 2024l).

Local

Air Quality and Greenhouse Gases

Local jurisdictions, such as Riverside County, have the authority and responsibility to reduce air pollution through their policy power and decision-making authority. Specifically, Riverside County is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. Riverside 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, Riverside 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 Riverside County General Plan is two-tiered. The General Plan covers the entire unincorporated portion of the County of Riverside and is augmented by 19 more detailed area plans. The General Plan manages the overall pattern of development while the area plans provide a clear and more focused opportunity to enhance community identity within the County and stimulate quality of life at the community level (CRPD 2015). 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 County of Riverside General Plan Air Quality Element was revised July 17, 2018 (CRPD 2018). The applicable policies of the County of Riverside General Plan Air Quality Element are specified below (CRPD 2018):

AQ 2.2: Require site plan designs to protect people and land uses sensitive to air pollution through the use of barriers and/or distance from emissions sources when possible.

AQ 2.3: Encourage the use of pollution control measures such as landscaping, vegetation and other materials, which trap particulate matter or control pollution.

AQ 4.1: Require the use of all feasible building materials/methods which reduce emissions.

AQ 4.4: Require residential building construction to comply with energy use guidelines detailed in Part 6 (California Energy Code) and/or Part 11 (California Green Building Standards Code) of Title 24 of the California Code of Regulations.

AQ 4.5: Require stationary pollution sources to minimize the release of toxic pollutants through: design features; operating procedures; preventive maintenance; operator training; and emergency response planning.

AQ 4.6: Require stationary air pollution sources to comply with applicable air district rules and control measures.

AQ 4.7: To the greatest extent possible, require every project to mitigate any of its anticipated emissions which exceed allowable emissions as established by the SCAQMD, MDAQMD, SCAB, the Environmental Protection Agency and the California Air Resources Board.

AQ 4.8: Expand, as appropriate, measures contained in the County's Fugitive Dust Reduction Program for the Coachella Valley to the entire County.

AQ 4.9: Require compliance with SCAQMD Rules 403 and 403.1, and support appropriate future measures to reduce fugitive dust emanating from construction sites.

AQ 4.10: Coordinate with the SCAQMD and MDAQMD to create a communications plan to alert those conducting grading operations in the County of first, second, and third stage smog alerts, and when wind speeds exceed 25 miles per hour. During these instances all grading operations should be suspended.

AQ 5.1: Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposed of in landfills.

AQ 5.2: Adopt incentives and/or regulations to enact energy conservation requirements for private and public developments.

AQ 20.11: Increase energy efficiency of the new developments through efficient use of utilities (water, electricity, natural gas) and infrastructure design. Also, increase energy efficiency through use of energy efficient mechanical systems and equipment.

AQ 20.14: Reduce the amount of water used for landscaping irrigation through implementation of County Ordinance 859 and increase use of non-potable water.

AQ 21.2: Implementation Measures found necessary for a given project pursuant to the CAP Screening Tables shall be incorporated into a project's Mitigation and Monitoring Programs as required mitigation measures under CEQA to ensure the measures are implemented appropriately. Such Implementation Measures may also be separately incorporated into the Conditions of Approval issued by the County. In the event no Mitigation and Monitoring Program is required for a project, the Implementation Measures shall be incorporated into a project's Conditions of Approval issued by the County.

AQ 25.1: The County shall implement programs and requirements to achieve the following objectives related to reducing greenhouse gas emissions through water conservation:

- d. Increase use of non-potable water where appropriate, such as for landscaping and agricultural uses.

AQ 29.2: The County shall implement programs and requirements to achieve the following objectives related to reducing greenhouse gas emissions through improving energy efficiency for County facilities:

- b. Improve the energy efficiency of County infrastructure operation (roads, water, waste disposal and treatment, buildings, etc.)

AQ 29.3: The County shall implement programs and requirements to achieve the following objectives related to reducing greenhouse gas emissions through achieving waste reduction and resource efficiency for County facilities and operations:

- b. Reduce potable water use at both new and existing County facilities and operations.
- c. Reduce wastewater generation and urban runoff in both new and existing County facilities and operations.

Eastern Coachella Valley Community Emissions Reduction Plan

The Final Eastern Coachella Valley Community Emissions Reduction Plan (CERP) was approved in July 2021 to reduce air pollution in the Eastern Coachella Valley (ECV) community and improve public health (SCAQMD 2021). The CERP shows that NO_x, volatile organic compounds (VOCs) and PM_{2.5} are the emissions of concern in the ECV in 2018 (SCAQMD 2021). NO_x emissions, primarily from mobile sources, account for 80 percent of emissions in the ECV. VOC emissions result from stationary sources, with consumer products being the largest source. Passenger vehicles and off-road equipment are the largest contributors of VOC from on-road and off-road sources. PM_{2.5} emissions are mostly from stationary sources, with construction and demolition the largest source. Diesel Particulate Matter (DPM), which is considered a TAC, is the main air toxic pollutant in this community, with on-road and off-road mobile sources as the predominant sources. To combat these emissions, the CERP set emission reduction targets for NO_x, DPM, and PM_{2.5} and identified 15 goals to achieve these reduction targets.

County of Riverside Climate Action Plan Update, November 2019

The County of Riverside 2019 Climate Action Plan (CAP) Update refines the County's efforts to meet GHG reduction strategies, specifically for the years 2035 and 2050. The 2019 CAP Update builds upon the GHG reduction strategies in the 2015 Climate Action Plan. The 2019 CAP Update summarizes various State and local policies that will contribute to reduced GHG emissions in Riverside County by the year 2020 and beyond. Some of these policies include updated building codes for energy efficiency, the

low carbon fuel standard, Pavley (California Assembly Bill) vehicle emissions standards, and the Renewable Portfolio Standards for utility companies.

Revised Order Water Rights Orders (WRO) 2002-0013, WRO 2002-0016, WRO 2017-134

In 2017 the State Water Resources Control Board (SWRCB) issued Water Rights Order 2017-134 which amended the previous Water Rights Orders (WRO) 2002-013 and WRO 2002-0016, clarifying the state's responsibility and commitment to managing the changing conditions at the Salton Sea in the interests of mitigating impacts to the natural environment and to public health resulting from the lowering elevation of the Sea. The WRO was enacted to comply with the Salton Sea Restoration Act, California Fish & Game Code section 2942 which provides that the Secretary of California Natural Resources Agency (CNRA) shall lead the state's efforts to restore the Salton Sea. The WRO states the following:

“The Board finds and declares that restoration of a smaller but sustainable Salton Sea is feasible, that the State of California will lead and coordinate management efforts, and that implementation of projects to protect or improve air and water quality and wildlife habitat will be completed forthwith to avoid severe consequences to the State of California as a whole, to the health of Imperial and Coachella Valley residents, and to multiple wildlife habitats that exist at the Salton Sea and serve the Pacific Flyway.”

Further, the WRO notes that the State of California leadership role in the restoration and dust suppression projects is appropriate:

“The Board further finds and declares that successful management of a smaller but sustainable Salton Sea will require the active participation and support of the federal government, affected local and regional governing bodies, affected tribal governments, environmental and philanthropic organizations, and the State of California. While the importance, cost and scale of this endeavor will exceed what can be expected from any single entity, the State has acknowledged that its role as a catalyst is essential in advancing the cause of restoration.”

Further, while the Quantification Settlement Agreement (QSA) EIS/EIR mitigation measures, as carried out by the QSA Joint Powers Authority at the Salton Sea to mitigate impacts of the water transfers are identified as being unaffected, the WRO mandates the State's responsibility for construction of 4,200 acres of habitat and dust-suppression projects on exposed playa by 2028, among additional activities and targets carried forth in the Salton Sea Management Program (SSMP).

Quantification Settlement Agreement

The Coachella Valley receives Colorado River water via the Coachella Canal branch of the All American Canal. In 2003, CVWD signed the QSA that assigned Colorado River water diversion rights to the San Diego County Water Authority (SDCWA), CVWD, Imperial Irrigation District (IID), and the Metropolitan Water District of Southern California (MWD). The QSA established a base entitlement of Colorado River water to the CVWD at 330,000 acre-feet per year (AFY). CVWD negotiated water transfer agreements with MWD and IID that increased CVWD supplies by an additional 123,000 AFY. CVWD's net QSA supply will increase to 424,000 AFY by 2026 and remain at that level until 2047, decreasing to 421,000 AFY until 2077, when the agreement terminates.

In 2002, as the federal lead agency under the National Environmental Policy Act (NEPA), Reclamation certified a Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) evaluating the QSA Water Conservation and Transfer Project and Habitat Conservation Plan (2002 EIR/EIS). IID was the state lead agency in compliance with the California Environmental Quality Act, California Public Resources Code Sections 21000, et seq. (CEQA). The 2002 EIR/EIS evaluated, among other things, the conservation and transfer of up to 300,000 AFY of Colorado River water to the SDCWA for a designated period of up to 75 years. IID adopted an Addendum to the 2002 EIR/EIS in 2003 that, among other things, modified certain mitigation measures referred to as “the Salton Sea Habitat Conservation Strategies,” including the temporary use of mitigation water, modifications to the terms of the water transfer, and modifications to the Endangered Species Act consultation strategies, allowing the water transfers to occur through a Section 7 consultation rather than with a Section 10 process, which would result in a Habitat Conservation Plan. The 2002 EIR/EIS and the 2003 Addendum are hereafter collectively referred to as the “QSA EIR/EIS (BOR 2024).

The QSA EIR/EIS evaluated impacts of the flow allocations that recognized reduced inflow to the Salton Sea would result in lowered elevations of the Sea, increased salinity in the Sea, and the increased acreage of exposed lakebed. These impacts are currently being observed along the receding Salton Sea shoreline. To mitigate impacts to biological resources, air quality, and public health, the QSA EIR/EIS established a mitigation program that was upheld in WRO 2017-134. WRO 2017-134 also outlined additional responsibilities of the California Natural Resources Agency carried into the SSMP in 2017. The QSA EIS EIR requires a specific Mitigation Monitoring and Reporting Plan addressing a range of ecological conditions at the Salton Sea, including IID’s Salton Sea Air Quality Mitigation Program (SS AQMP).

The Quantification Settlement Agreement Joint Powers Authority (QSA JPA) was formed under 2003 legislation to administer funding of environmental mitigation requirements related to the QSA water transfers. Specifically, the QSA JPA collects, holds, invests, and reimburses environmental mitigation costs incurred by implementing member agencies to address the distinct impacts related to the transfers. The QSA JPA is comprised of designated representatives from CDFW, IID, SDCWA, and CVWD who serve as Commissioners and staff. Under QSA-related legislation (specifically SB 654), the three water agencies, IID, SDCWA, and CVWD, have a responsibility to fund environmental mitigation related to the QSA up to \$133 million in 2003 dollars. Additionally, the three water agencies have paid \$30 million in 2003 dollars as seed money for the state’s restoration program. The \$30 million was provided to CDFW as part of the Salton Sea Restoration Fund. That funding together with the \$133 million cap the three water agencies’ financial obligations and liabilities for environmental mitigation and restoration as part of the QSA. The state has a responsibility under the QSA-related legislation to fund mitigation costs that exceed \$133 million and a responsibility to address the larger issue of restoration at the Salton Sea (<https://qsajpa.org>).

The SS AQMP was developed by IID, in collaboration with Imperial County Air Pollution Control District, to provide a comprehensive, science-based, adaptive approach to address air quality mitigation requirements associated with the QSA and the water conservation and transfers under the QSA. The objective of the SS AQMP is to proactively detect, locate, assess and identify options to mitigate dust emissions from exposed Salton Sea playa as it occurs. Each component of the program is used to identify, prioritize, and guide implementation of dust control measures on exposed Salton

Sea playa. The main components of the SS AQMP include 1) an annual Emissions Monitoring Program to estimate emissions and to identify areas of exposed playa for proactive dust control, 2) an annual Proactive Dust Control Plan with recommendations and design for site-specific dust control measures, and 3) implementation of dust control measures to prevent PM10 dust source areas from becoming significant sources of dust emissions, and also scaling and adapting dust control measures to efficiently achieve control at a larger scale. The annual Emissions Monitoring Program is designed to work with the development of the annual Proactive Dust Control Plan and subsequent implementation of dust control measures. Sites for dust control measures are identified by IID on an annual basis in the Proactive Dust Control Plan. This approach allows effective, targeted use of resources on areas that require proactive dust control to help protect the public health of communities near and around the Salton Sea (IID 2016; BOR 2024).

The SS AQMP recognizes that current and future exposed Salton Sea playa is anticipated to be a new source of PM10 dust emissions and the three main components of the SS AQMP provide an annual basis of identifying and addressing potential dust emissions from exposed Salton Sea playa. Until the playa is exposed, the location, frequency and magnitude of future emissions are unknown. It is important to note that the timing and location of playa exposure is a function of the Sea floor bathymetry and the Sea's response to inflows, salt loads, and evaporation rates. While models have been developed to predict future playa exposure (rate and extent), any model will have a margin of error due to uncertainty regarding future conditions and the Sea's response. Therefore, the objective and structure of the SS AQMP is specifically designed to be adaptive and proactively detect, locate, and assess potential dust emissions and identify options to mitigate those emissions from exposed Salton Sea playa as it occurs, regardless of timing, rate, and extent of playa exposure. Each component of the SS AQMP is used to proactively identify, prioritize, and guide implementation of dust control measures on exposed Salton Sea playa on an ongoing basis into the future. For instance, the SS AQMP monitors actual playa exposure routinely regardless of what was projected to be exposed. This ensures that playa is characterized appropriately and monitored for potential emissions on a continual annual basis (IID 2016; BOR 2024).

Salton Sea Management Plan Mitigation Projects

The SSMP was initiated by the CNRA in collaboration with the DWR and CDFW to develop and implement restoration and dust suppression projects at the Salton Sea. The SSMP Team is currently implementing its Phase 1: 10-Year Plan. The 10-year Plan aims to establish at least 14,900 acres of aquatic habitat and up to 14,900 acres of dust suppression projects by the year 2028. There are several projects in progress and future projects under consideration at the Sea as part of the Phase 1: 10-Year Program, including the Species Conservation Habitat (SCH) Project, SCH Expansion Project, SCH Vegetation Project, Kane Springs, San Felipe Fan, Tule Wash, Clubhouse, Desert Shores Channel Restoration Project, North Lake Project, North Lake Pilot Demonstration Project, West Bombay Beach, Audubon Bombay Beach Wetland Restoration Project, and the Wister Unit Marsh Bird Habitat Restoration Project (DWR and CDFW 2024). The SCH Project nearing completion will restore approximately 4,100 acres of shallow water habitat for fish and birds while also suppressing dust emissions. Three additional projects have been prioritized by the SSMP team for dust suppression and vegetation enhancement including Clubhouse, Tule Wash, and West Bombay Beach.

3.3.2 Environmental Setting

Regional Setting

The proposed project is located in the Riverside County portion of the Air Basin. The Air Basin (also referred to as the Coachella Valley Planning Area) is part of a sub-region of Riverside County that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley. The SCAQMD is the local air district with jurisdiction over air pollution sources in the Riverside County portion of the Salton Sea Air Basin where the proposed project is located.

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 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 VOCs and 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 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).

The USEPA states that people most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers (USEPA 2024a). Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure (USEPA 2024a). According to CARB, studies show that children are no more or less likely to suffer harmful effects than adults; however, children and teens may be more susceptible to ozone and other pollutants because they spend nearly twice as much time outdoors and engaged in vigorous activities compared to adults (CARB 2024a). Children breathe more rapidly than adults and inhale more pollution

per pound of their body weight than adults and are less likely than adults to notice their own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults.

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 principle 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. However, the term NO_x is typically used when discussing emissions, usually from combustion-related activities, and the term NO₂ is typically used when discussing ambient air quality standards. Where NO_x emissions are discussed in the context of the thresholds of significance or impact analyses, the discussions are based on the conservative assumption that all NO_x emissions would oxidize in the atmosphere to form NO₂. According to the USEPA, short-term exposures to NO₂ can potentially aggravate respiratory diseases, particularly asthma, 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). According to CARB, controlled human exposure studies that show that NO₂ exposure can intensify responses to allergens in allergic asthmatics (CARB 2024c). 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). Infants and children are particularly at risk from exposure to NO₂ because they have disproportionately higher exposure to NO₂ than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Among adults, risk from exposure to NO₂ is highest among people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (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). Very high levels of CO are not likely to occur outdoors; however, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease since these people already have a reduced ability for getting oxygenated blood to their hearts and are especially vulnerable to the effects of CO when exercising or under increased stress (USEPA 2023d). In these situations, 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). In 2006, California phased-in the ultra-low-sulfur diesel regulation limiting vehicle diesel fuel to a sulfur content not exceeding 15 parts per million, down from the previous requirement of 500 parts per million, substantially reducing emissions of sulfur from diesel combustion (CARB 2004). 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 (USEPA 2023e). Children, the elderly, and those with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most likely to experience the adverse effects of SO₂ (CARB 2024e; USEPA 2023e).

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). Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye while other particles are so small they can only be detected using an electron microscope (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 (CARB 2024f). The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer (CARB 2024f). 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). According to CARB, populations most likely to experience adverse health effects with exposure to PM₁₀ and PM_{2.5} include older adults with chronic heart or lung disease, and 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).

Other Criteria Pollutants (California Only)

The CAAQS regulate the same criteria pollutants as the NAAQS but in addition, regulate State-identified criteria pollutants, including sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride (CARB 2024h). With respect to the State-identified criteria pollutants (i.e., sulfates, hydrogen sulfide, visibility reducing particles, and vinyl chloride), the proposed project would either not emit them (i.e., hydrogen sulfide and vinyl chloride), or they would be accounted for as part of the pollutants estimated in this analysis (i.e., sulfates and visibility reducing particles). For example, visibility reducing particles are associated with particulate matter emissions and sulfates are associated with SO₂ emissions. Both particulate matter and SO₂ are included in the emissions estimates for the proposed project.

Toxic Air Contaminants

TACs, or HAPs, as defined by the USEPA, are defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. For consistency within this document they will be referred to as TACs. In addition to criteria pollutants, the

SCAQMD periodically assesses levels of 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.

The USEPA has assessed this expansive list and identified 21 TACs as Mobile Source Air Toxics (MSATs). MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline. USEPA also extracted a subset of these 21 MSAT compounds that it now labels as the nine priority MSATs: 1,3-butadiene, acetaldehyde, acrolein, benzene, DPM/diesel exhaust organic gases, ethylbenzene, naphthalene, and polycyclic organic matter (POM). While these nine MSATs are considered the priority transportation toxics, USEPA stresses that the lists are subject to change and may be adjusted in future rules.

Diesel particulate matter, which is emitted in the exhaust from diesel engines, was listed by the State as a TAC 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 2024i). 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 2024i).

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.

Greenhouse Gas Emissions

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) 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 carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).⁷ 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.⁸ 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.

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

⁷ As defined by California Assembly Bill (AB) 32 and Senate Bill (SB) 104.

⁸ 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.

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 MMTCO₂e annually including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation). Emissions of CO₂ from fossil fuel use and industrial processes account for 73 percent of the total while CO₂ emissions from all sources account for 88 percent of the total. Methane emissions account for 19 percent and N₂O emissions for 5 percent. In 2020, the United States was the world's second largest emitter of carbon dioxide at 5,640 MMTCO₂e (China was the largest emitter of carbon dioxide at 14,300 MMTCO₂e) (PBL 2022).

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 MMTCO₂e including emissions resulting from imported electrical power (CARB 2024j). 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).⁹ Despite the population and economic growth, California's net GHG emissions were reduced to below 1990 levels in 2016 and have 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.

⁹ Amounts are based on current dollars as of the date of the report (June 2023).

Local Setting

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. Thus, the worst air pollution conditions throughout the Air Basin typically occur from June through September. These conditions are generally attributed to the seasonally light winds and shallow vertical atmospheric mixing, which reduce the potential for the dispersal of air pollutant emissions, thereby causing elevated air pollutant levels. Pollutant concentrations in the Air Basin vary with location, season, and time of day. Concentrations of ozone, for example, 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 (SCAQMD 2022). **Table 3.3-4** shows the attainment status of the Air Basin for each criteria pollutant for the Riverside County portion of the Air Basin.

**TABLE 3.3-4
SALTON SEA AIR BASIN ATTAINMENT STATUS (RIVERSIDE 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/Unclassifiable	Attainment
NO ₂	Attainment/Unclassifiable	Attainment
SO ₂	Attainment/Unclassifiable	Attainment
PM ₁₀	Non-attainment – Serious	Non-attainment
PM _{2.5}	Attainment/Unclassifiable	Attainment
Lead (Pb)	Attainment/Unclassifiable	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride ^b	N/A	N/A

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 TAC 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.

Source: USEPA, The Green Book Non-Attainment Areas for Criteria Pollutants, <https://www.epa.gov/green-book>; CARB, Area Designations Maps/State and National, <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>.

As shown in Table 3.3-4, the Air Basin is designated under Federal or State ambient air quality standards as nonattainment for ozone and PM₁₀. 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 2022). 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).

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin to measure ambient pollutant concentrations. The proposed project would be located near three monitoring stations, the Indio Monitoring Station, the Mecca Monitoring Station, and the Palm Springs Monitoring Station, all of which are located in SRA 30. The criteria pollutants monitored at the Indio Monitoring Station, located at 46990 Jackson Street, Indio, CA 92201, include ozone and PM_{2.5}. The criteria pollutants monitored at the Mecca Monitoring Station, located at 65705 Johnson Street, Mecca, CA 92254, includes PM₁₀. The criteria pollutants monitored at the Palm Springs Monitoring Station, located at 590 E. Racquet Club Avenue, Palm Springs, CA 92262, include NO₂ and CO. The most recent data available from the SCAQMD for these monitoring stations are from years 2020 to 2022 (SCAQMD 2020, 2021, 2022). The pollutant concentration data for these years are summarized in **Table 3.3-5**.

Concentrations of SO₂ and lead are not monitored in the Coachella Valley Planning Area and are not reported. As shown in Table 3.3-5, the CAAQS and NAAQS were not exceeded in the proposed project site vicinity for all pollutants between 2020 and 2022, except for O₃, PM₁₀, and PM_{2.5} (annual). According to the SCAQMD, high PM₁₀ (greater than 155 micrograms per cubic meter) data recorded in the Coachella Valley (due to high winds) are excluded because they likely meet the exclusion criteria specified in the USEPA Exceptional Event Rule. The SCAQMD submits exceptional event demonstrations to USEPA for events that have regulatory significance.

**TABLE 3.3-5
AMBIENT AIR QUALITY IN THE PROJECT VICINITY**

Pollutant/Standard^a	2020	2021	2022
Ozone, O₃ (1-hour) (Indio Station)			
Maximum Concentration (ppm)	0.097	0.099	0.072 ^b
Days > CAAQS (0.09 ppm)	2	2	0 ^b
Ozone, O₃ (8-hour) (Indio Station)			
Maximum Concentration (ppm)	0.084	0.078	0.069 ^b
4 th High 8-hour Concentration (ppm)	0.081	0.076	0.066 ^b
Days > CAAQS (0.070 ppm)	42	24	0 ^b
Days > NAAQS (0.070 ppm)	42	18	0 ^b
Nitrogen Dioxide, NO₂ (1-hour) (Palm Springs Station)			
Maximum Concentration (ppm)	0.047	0.036	0.038
Days > CAAQS (0.18 ppm)	0	0	0
98 th Percentile Concentration (ppm)	0.034	0.033	0.033
Days > NAAQS (0.100 ppm)	0	0	0
Nitrogen Dioxide, NO₂ (Annual) (Palm Springs Station)			
Annual Arithmetic Mean (0.030 ppm)	0.007	0.007	0.006

Pollutant/Standard ^a	2020	2021	2022
Carbon Monoxide, CO (1-hour) (Palm Springs Station)			
Maximum Concentration (ppm)	0.8	0.8	1.1
Days > CAAQS (20 ppm)	0	0	0
Days > NAAQS (35 ppm)	0	0	0
Carbon Monoxide, CO (8-hour) (Palm Springs Station)			
Maximum Concentration (ppm)	0.5	0.4	0.5
Days > CAAQS (9.0 ppm)	0	0	0
Days > NAAQS (9 ppm)	0	0	0
Respirable Particulate Matter, PM10 (24-hour) (Mecca Station)			
Maximum Concentration (µg/m ³)	259	147	428
Samples > CAAQS (50 µg/m ³)	69	69	58
Samples > NAAQS (150 µg/m ³)	1	0	10
Respirable Particulate Matter, PM10 (Annual) (Mecca Station)			
Annual Arithmetic Mean (20 µg/m ³)	38.0	39.1	41.8
Fine Particulate Matter, PM2.5 (24-hour) (Indio Station)			
Maximum Concentration (µg/m ³)	25.6	18	21.3 ^b
98th Percentile Concentration (µg/m ³)	20.2	14.2	21.3 ^b
Samples > NAAQS (35 µg/m ³)	0	0	0 ^b
Fine Particulate Matter, PM2.5 (Annual) (Indio Station)			
Annual Arithmetic Mean (12 µg/m ³)	8.41	8.15	13.9 ^b

a. ppm = parts per million; µg/m³ = micrograms per cubic meter

b. Incomplete data due to site closure or modification in 2022.

Source: SCAQMD, 2020, 2021, 2022. Historical Data by Year, <http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year>. Accessed February 2024.

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.

The proposed project area includes mostly rural areas with sparsely populated areas. Residences are located directly north of the WRP 4 facility along 62nd Avenue or immediately adjacent to pipeline installation activities associated with the proposed projects. In this analysis, it was assumed the nearest receptor would be residential uses located adjacent to a project site.

Quantification Settlement Agreement

The Coachella Valley receives Colorado River water via the Coachella Canal. In 2003, CVWD signed the QSA that assigned Colorado River water diversion rights to the SDCWA, CVWD, IID, and MWD. The QSA EIR/EIS evaluated impacts of the flow allocations that recognized reduced inflow to the Salton Sea would result in lowering elevations of the Sea, increased salinity in the Sea, and the increased acreage of

exposed lakebed. These impacts are currently being observed along the receding Salton Sea shoreline. To mitigate impacts to biological resources, air quality, and public health, the QSA EIR/EIS established a mitigation program that was incorporated by the California Department of Water Resources into the SSMP in 2017.

Salton Sea Management Plan Mitigation Projects

The SSMP was initiated by the CNRA in collaboration with DWR and CDFW to develop and implement restoration and dust suppression projects at the Salton Sea. The SSMP Team is currently implementing its Phase 1: 10-Year Plan. The 10-year Plan aims to establish at least 14,900 acres of aquatic habitat and up to 14,900 acres of dust suppression projects by the year 2028. There are several projects in progress and future projects under consideration at the Sea as part of the Phase 1: 10-Year Program, including the SCH Project, SCH Expansion Project, SCH Vegetation Project, Kane Springs, San Felipe Fan, Tule Wash, Clubhouse, Desert Shores Channel Restoration Project, North Lake Project, North Lake Pilot Demonstration Project, West Bombay Beach, Audubon Bombay Beach Wetland Restoration Project, and the Wister Unit Marsh Bird Habitat Restoration Project (CNRA, DWR, and CDFW 2024).

The SCH Project nearing completion will restore approximately 4,100 acres of shallow water habitat for fish and birds while also suppressing dust emissions. Three additional projects have been prioritized by the SSMP team for dust suppression and vegetation enhancement including Clubhouse, Tule Wash, and West Bombay Beach. The SCH Expansion Project plans to create aquatic habitat adjacent to the SCH and would require construction of additional berms using the existing water conveyance, pumping facilities, and diversion infrastructure constructed for the SCH Project. The Audubon Bombay Beach Wetland Enhancement Project is a coordinated effort between the SSMP Team and Audubon California that plans to preserve and enhance an existing wetland of over 564 acres adjacent to Bombay Beach. Audubon is continuing to lead the design effort as the SSMP team assists with the Phase 1: 10-Year Plan EA, design, public access, and securing land access.

Long Range Plan

In response to the QSA, the SWRCB issued the WRO (WRO 2002-0013, updated in WRO 2017-134) that required CNRA to prepare a long-term plan consistent with the Salton Sea Restoration Act and Fish and Game Code Section 2931, subdivision (c). The goal of the Long Range Plan (LRP) is to protect or improve air quality, water quality, and wildlife habitat to reduce health and environmental consequences anticipated from the long-term recession of the Salton Sea.

The LRP analyzed the sustainable baseline conditions based on the anticipated reliable inflows into the Salton Sea, and then developed various restoration and dust suppression projects. These LRP projects have been identified to mitigate impacts for past and projected future flow reductions into the Salton Sea (DWR and CDFW 2024). The LRP estimated future inflows to the Sea and calculated future salinity and sea elevation. The modeling conducted for the Salton Sea Long-Range Plan included the assumption that effluent from WRP 4 would be recycled for agricultural irrigation rather than continuing to discharge to the Coachella Valley Storm Water Channel (CVSC).

3.3.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to air quality. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

Air Quality

- Conflict with or obstruct implementation of the applicable air quality plan.
- 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.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
- Result in cumulatively considerable impacts to air quality.

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. The Air Basin is currently in non-attainment for ozone, PM₁₀, and PM_{2.5}. SCAQMD methodology recommends that significance thresholds be used to determine the potential cumulative impacts to regional air quality along with a project's consistency with the current AQMP.

The SCAQMD has established numerical significance thresholds for construction and operational activities. The numerical thresholds 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 (SCAQMD 1993). Given that construction impacts are temporary and limited to the construction phase, the SCAQMD has established numerical significance thresholds specific to construction activity. For determining the significance of operational emissions, the SCAQMD has established numerical indicators as significance thresholds based, in part, on Section 182(e) of the CAA, which sets 10 tons per year of VOC as a significance level for stationary source emissions in extreme non-attainment areas for ozone (SCAQMD 1993). As shown in **Table 3.3-6** 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 thresholds in the SCAQMD CEQA Air Quality Handbook, the proposed project would potentially result in a significant impact of a federal or state non-attainment pollutant if emissions of ozone precursors (VOC and NO_x), PM₁₀, or PM_{2.5} would exceed the values shown in Table 3.3-6.

TABLE 3.3-6
SCAQMD REGIONAL EMISSIONS THRESHOLDS (POUNDS PER DAY)

Activity	VOC	NO _x	CO	SO ₂	PM10	PM2.5
Construction	75	100	550	150	150	55
Operation	55	55	550	150	150	55

Source: SCAQMD, Air Quality Significance Thresholds, 2023.

Greenhouse Gas Emissions

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.
- Result in cumulatively considerable impacts to GHG emissions.

In December 2008, the SCAQMD adopted a 10,000 MTCO₂e per year significance threshold for industrial facilities for projects in which the SCAQMD is the lead agency. Although SCAQMD has not formally adopted a significance threshold for GHG emissions generated by a project for which SCAQMD is not the lead agency, or a uniform methodology for analyzing impacts related to GHG emissions on global climate change, in the absence of any industry-wide accepted standards applicable to this project, the SCAQMD's significance threshold of 10,000 MTCO₂e per year for industrial projects is the most relevant GHG significance threshold and is used as a benchmark for the proposed project. It should be noted that the SCAQMD's significance threshold of 10,000 MTCO₂e per year for industrial projects is intended for long-term operational GHG emissions. The SCAQMD has developed guidance for the determination of the significance of GHG construction emissions that recommends that total emissions from construction be amortized over an assumed project lifetime of 30 years and added to operational emissions and then compared to the threshold (SCAQMD 2008).

Methodology

Air Quality

Construction Emissions

Construction of the proposed project has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment, such as cranes and excavators, and through vehicle trips generated from worker trips, haul trucks, and vendor/material supply trucks traveling to and from the project areas. In addition, fugitive dust emissions would result from demolition, excavation, and various soil-handling activities. Evaporative emissions of VOCs result from the application of asphalt and architectural/industrial coatings and vary depending on the amount of asphalt and coatings applied on a daily basis. 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. In addition, construction of the various projects may overlap. The assessment of construction air quality impacts considers each of these potential sources of emissions.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities and applying the mobile source and fugitive dust emissions factors. The emissions are estimated using CalEEMod (Version 2022.1.1) software, an emissions inventory software program recommended by SCAQMD. CalEEMod is based on outputs from OFFROAD and EMFAC, which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles. The input values used in the CalEEMod analysis were adjusted to be project-specific based on construction information provided by the CVWD. 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 AQ/GHG/Energy** of this Draft EIR.

The proposed project is divided into three phases with construction of Phase 1 completed in 2027, construction of Phase 2 completed in January 2030, and construction of Phase 3 completed in January 2035. Air emissions for Phases 1 and 2 are assumed to be representative of air emissions for Phase 3, since Phase 3 is much less intensive than either Phases 1 or 2. Additionally, since construction of Phase 3 would occur in approximately 2035, Phase 3 emissions would be lower than either Phases 1 or 2 due to a more energy-efficient and cleaner burning construction equipment fleet mix.

Phase 1

Construction of Phase 1 is anticipated to begin in June 2027. 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, which would result in construction impacts being less than those analyzed herein. This is because a more energy-efficient and cleaner burning construction equipment fleet mix would be expected in the future, pursuant to State regulations that require construction equipment fleet operators to phase-in less polluting heavy-duty equipment.

The proposed upgrades at WRP 4 would involve the addition of tertiary filtration and disinfection facilities to produce recycled water for irrigation. The basic components would include: a filter feed pump station (or “FFPS”); a flow meter and chemical injection area; tertiary filters; a backwash and bypass pump station; an ultraviolet (UV) disinfection building and electrical room; a non-potable water junction, blended water reservoir; a canal-water-receiving wet well (wet well); a chemical storage and feed systems; and approximately 11,910 linear feet of retrofitted and new pipelines.

Phase 2

The upgrades included in Phase 1 would be strategically designed to allow expansion of up to 2.5 million gallons per day (MGD) under Phase 2 with minor equipment upgrades. The basic upgrades would include: the addition of one new vertical turbine electric pump within the filter feed pump station; increase to the rate of alum injection in the chemical injection area; addition of four discs in the tertiary filters and three new tanks; additional banks and channels would be constructed in a new UV disinfection building; retrofit of the recycled water junction structure to house three vertical turbine pumps; three additional 734-gallon tanks; and approximately 33,262 linear feet of new pipelines.

Phase 3

WRP 4 would be upgraded in the future to support buildout conditions of up to 10 MGD. All facilities would be installed within the tertiary treatment upgrade boundary identified in Figure 2-1 and would be similar in size and scope to the facility upgrades detailed above under Phase 1 and 2.

Operational Emissions

Emissions produced from the operation of the proposed project would be analyzed as an increase from existing conditions of the facility. There are no known new sources of stationary emission sources (such as emergency generators). During operation of the proposed project, minimal amounts of emissions could be generated from the pumps and maintenance operations, including routine cleaning and from periodic visits from service vehicles. Therefore, minimal additional emissions would be generated from vehicle trips by worker staff for periodic inspections or maintenance purposes.

During long-term operations of the project, TACs could be emitted as part of periodic maintenance operations, routine cleaning, periodic painting, etc., and from periodic visits from service vehicles. However, these events are expected to be occasional and result in minimal emissions exposure to offsite sensitive receptors. The proposed project would not include any emergency generators or sources of substantial TAC emissions. Thus, a qualitative analysis is appropriate for assessing the project's operational emissions.

In addition to regional pollutant emissions, localized impacts on sensitive receptors must also be addressed from operational activities. Localized impacts are analyzed onsite or around the immediate vicinity of the project site. Proposed project operational activities consist of offsite emission sources (mobile sources and indirect sources) of criteria pollutants, so any localized impacts from mobile sources during operations would not occur. Therefore, this analysis includes a qualitative discussion of associated localized impacts as they relate to the increase electrical energy consumption associated with the expanded facilities at WRP 4.

Sensitive Receptor Exposure to Pollutants

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.

The proposed project area includes mostly primarily rural areas with sparsely populated areas. Residences are located directly north of the WRP 4 facility along 62nd Avenue or immediately adjacent to pipeline

installation activities associated with the proposed projects. In this analysis, it was assumed the nearest receptor would be a residence located adjacent to a project site.¹⁰

CO Hotspots

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.

TAC Emissions

The greatest potential for TAC emissions during construction would be related to DPM emissions associated with heavy-duty equipment during demolition, excavation and grading activities. Construction activities associated with the proposed project would be sporadic, transitory, and short term in nature. The OEHHA is responsible for developing and revising guidelines for performing health risk assessments (HRAs) under the State's Air Toxics Hot Spots Program Risk Assessment (AB 2588) regulation. In March 2015, OEHHA adopted revised guidelines that update the previous guidance by incorporating advances in risk assessment with consideration of infants and children using Age Sensitivity Factors (ASF). The analysis of potential construction TAC impacts considers the OEHHA revised guidelines as well as the duration of construction, level of construction activity, scale of the proposed project, and compliance with regulations that would minimize construction TAC emissions.

A qualitative analysis of TAC emissions from operational activities is also included since the proposed project is not expected to include stationary sources of TACs, such as emergency generators. Some types of stationary sources would be subject to SCAQMD's rules, regulations and permitting. Thus, during the permitting process SCAQMD would analyze such sources (e.g., health risk assessment) based on their potential to emit TACs. If it is determined that the sources would emit TACs in excess of SCAQMD's applicable significance threshold, the SCAQMD would deny the operating permit.

Odors

Potential odor impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis as necessary. The screening-level analysis consists of reviewing the proposed project's site plan and project description to identify new or modified odor sources. If it is determined that the proposed project would introduce a potentially significant new odor source, or modify an existing odor source, then

¹⁰ SCAQMD's Localized Significance Threshold Methodology (refer to page 3-3) states for project boundaries located closer than 25 meters (82 feet) to the nearest receptor, such as the proposed project where the nearest receptors are assumed to be located adjacent to the project site, should use the LSTs for receptors located at 25 meters.

downwind sensitive receptor locations are identified and a site-specific analysis is conducted to determine impacts.

Greenhouse Gas Emissions

As noted above, the increased concentration of GHGs in the atmosphere has been linked to global warming, which can lead to climate change. Construction and operation of the proposed project would incrementally contribute to GHG emissions along with past, present and future activities. As such, impacts of GHG emissions are analyzed here on a cumulative basis.

Similar to the air quality analysis, GHG emissions are estimated using the CalEEMod Version 2022.1.1. CalEEMod is based on outputs from OFFROAD and EMFAC2021, which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles. As with air quality, the input values used in the CalEEMod analysis were adjusted to be project-specific information provided by CVWD. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate GHG emissions values for each construction activity. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in Appendix AQ/GHG/Energy of this Draft EIR.

Consistency with Greenhouse Gas Reduction Plans, Policies, and Regulations

The proposed project's GHG emissions are also evaluated by assessing consistency with applicable GHG reduction strategies. As discussed previously, the GHG regulations have been adopted primarily at the federal and state levels to reduce emissions of GHGs from project sources, such as trucks and energy, under the CAA and the State's GHG regulatory framework under HSC Division 25.5 (i.e., AB 32 and SB 32). Impacts are evaluated based on consistency with these applicable regulations.

Impact Analysis

Conflict with or Obstruction of Air Quality Plan

Impact 3.3-1: Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

Phases 1, 2, and 3

The proposed project would not conflict with or obstruct implementation of the applicable air quality plan. Potential impacts would be less than significant.

Construction

To evaluate consistency with the AQMP, the SCAQMD recommends that lead agencies evaluate whether a project is consistent with the land use assumptions upon which the AQMP is based. The proposed project is within CVWD's service area, which is located in an unincorporated area of Riverside County. Emissions control strategies for construction activities outlined in the current 2022 AQMP include MOB-06, MOB-11, and MOB-15, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating the replacement of older, emissions-prone engines with newer engines that meet more stringent emission standards, and would be applicable to the proposed project. Implementation of the project would also be subject to CARB requirements for construction activities to minimize short-term emissions from on-road and off-road diesel equipment. Construction

activities would also be subject to SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403, such as the requirement to apply water spray/mists or similar suppressant (e.g., SoilSeal) at least 3 times per day on active areas of disturbance and unpaved roads, and limit truck speed to 15 miles per hour or less on unpaved roads to minimize dust on unpaved roads at the construction site. Compliance with these regulations would ensure that WRP 4 project emissions are consistent with the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the project would be subject to regulations requiring control strategies intended to reduce emissions from construction equipment, the project would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant.

Operation

Implementation of Phases 1, 2 and 3 would result in long-term regional emissions of criteria air pollutants and ozone precursors associated with energy consumption from the increase in electricity usage associated with the use of additional electric pumps, meters, UV system, and electrical room. Electrical energy associated with the operation of the pipelines and reservoir would not result in direct emissions of criteria pollutants. During operation of the proposed project, minimal amounts of emissions would be generated from maintenance operations (assumed to be four trucks per week), including routine cleaning and from periodic visits from service vehicles, and regular deliveries of various materials (assumed to be up to five chemical truck deliveries per month). Pipelines would be contained entirely underground and would require minimal maintenance. Therefore, the project would not require any additional workers and would not conflict with the long-term employment projections upon which the AQMP is based.

As noted in the Sanitation Master Plan PEIR, in order to reduce emissions for which the Coachella Valley is in nonattainment, the SCAQMD has adopted the 2016 AQMP and Coachella Valley PM10 SIP. These air quality plans establish programs of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national ambient air quality standards. Pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's latest RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. According to the SCAQMD, in order to determine consistency with SCAQMD's air quality planning two main criteria must be addressed.

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

Would the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new air quality violations, or would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?

As shown in Tables 3.3-7 and 3.3-8 below, the proposed project would result in emissions below the SCAQMD regional and localized thresholds during both construction and operations. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality

violations, would not have the potential to cause or affect a violation of the ambient air quality standards, and would not delay the timely attainment of air quality standards or AQMP emissions reductions.

Criterion 2:

Determining whether or not a project exceeds the assumptions reflected in the AQMP or Coachella Valley PM10 SIP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) Would the Project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP and Coachella Valley PM10 SIP?

A project is consistent with regional air quality planning efforts in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the SCAQMD air quality plans. The proposed project does not increase the treatment capacity of WRP 4. The Master Plan PEIR evaluated projects needed to accommodate future growth anticipated in the Coachella Valley. Thus, as concluded in the Master Plan PEIR, the proposed project would not conflict with any applicable general plans and would not conflict with the land use assumptions or exceed the population or job growth projections used by SCAQMD to develop the AQMP and/or Coachella Valley PM10 SIP. The proposed project would be considered consistent with the population, housing, and employment growth projections utilized in the preparation of SCAQMD's air quality plans.

b) Would the Project implement all feasible air quality mitigation measures?

As noted in the Sanitation Master Plan PEIR, in order to further reduce emissions, the proposed project would be required to comply with emission reduction measures promulgated by the SCAQMD, such as SCAQMD Rules 402, 403, 403.1, and 1113. SCAQMD Rule 402 prohibits the 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. SCAQMD Rule 403 requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM10 emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. Rule 403.1 is a supplemental rule to Rule 403 and is applicable to man-made sources of fugitive dust in the Coachella Valley, which encompasses the proposed project. The purpose of this rule is to reduce fugitive dust and resulting PM10 emissions from man-made sources in the Coachella Valley. Rule 403.1 requires a Fugitive Dust Control Plan approved by SCAQMD, or an authorized local government agency, prior to the initiation of any construction/earth-moving activity. SCAQMD 1113 requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories. As such, the proposed project meet this consistency criterion.

c) *Would the Project be consistent with the land use planning strategies set forth by SCAQMD air quality planning efforts?*

As noted in the Sanitation Master Plan, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. The Master Plan includes wastewater system upgrades and expansion necessary to accommodate anticipated growth in the region. The proposed project would not cause exceedance of the population or job growth projections used by the SCAQMD to develop the AQMP and Coachella Valley PM10 SIP. In conclusion, the determination of SCAQMD air quality plan consistency is primarily concerned with the long-term influence of a project on air quality. The proposed project would not result in a long-term impact on the region's ability to meet state and Federal air quality standards. The proposed project's long-term influence would also be consistent with the goals and policies of SCAQMD's AQMP and Coachella Valley PM10 SIP.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Net Increase of Criteria Pollutants

Impact 3.3-2: Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Phase 1

The proposed 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. Potential impacts would be less than significant.

Construction

Construction of Phase 1 is anticipated to occur as early as 2027 with completion in 2029. Construction impacts would be short-term and limited to the period of time when construction activities are taking place. The analysis below includes construction of a 1-MGD packaged cloth disk filtration system and an ultraviolet (UV) disinfection treatment plant as part of an overall treatment facility incorporating facilities expandable to 2.5 MGD. CVWD would construct a new reservoir serving as a regulatory structure within WRP 4 and repurpose an existing irrigation pipeline to deliver a blend of recycled water and canal water to three local customers located south of WRP 4.

The maximum daily emissions for Phase 1 were compared against SCAQMD's air quality significance thresholds. See Appendix AQ/GHG/Energy for the estimated construction schedule and equipment list. The maximum daily emissions for Phase 1 are shown below in **Table 3.3-7**, which demonstrates that construction of the proposed project would not exceed any SCAQMD air quality significance thresholds and therefore would not violate a regional air quality standard. Impacts related to an increase in criteria pollutants would be less than significant.

TABLE 3.3-7
PHASES 1 AND 2 – ESTIMATED MAXIMUM REGIONAL CONSTRUCTION EMISSIONS (POUNDS PER DAY)^a

Phase and Year	VOC	NO _x	CO	SO ₂	PM10 ^b	PM2.5 ^b
Phase 1						
	17.1	61.2	72.2	0.1	3.7	2.1
Phase 2						
	8.8	66.2	85.8	0.2	3.6	2.3
Maximum Daily Emissions	17.1	66.2	85.8	0.2	3.7	2.3
SCAQMD Numeric Indicators	75	100	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

Notes:

a. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix AQ/GHG/Energy of this Draft EIR.

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

Source: ESA, 2024.

Phase 2

The proposed 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. Potential impacts would be less than significant.

Construction

Construction of Phase 2 is anticipated to be completed by 2030. Construction impacts would be short-term and limited to the period of time when construction activities are taking place. The analysis summarized in Table 3.3-7 assumes additional equipment at WRP 4 to treat up to 2.5 MGD of tertiary treated recycled water, with onsite facilities expandable to 10 MGD, and construction of new distribution pipelines to deliver 2.5 MGD of recycled water. The maximum daily construction emissions for the proposed 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.

The maximum daily construction emissions from Phase 2 were compared against SCAQMD's air quality significance thresholds. See Appendix AQ/GHG/Energy for the estimated construction schedule and equipment list. The maximum daily emissions generated during Phase 2 are shown in Table 3.3-7, which shows that construction of Phase 2 would not exceed any SCAQMD air quality significance thresholds and therefore would not violate a regional air quality standard. Impacts related to an increase in criteria pollutants for Phase 2 would be less than significant.

Phase 3

The proposed 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. Potential impacts would be less than significant.

Construction

Phase 3 includes incorporating additional equipment to treat up to 10 MGD and would not involve additional on-site infrastructure. Similar to Phase 2, new recycled water delivery pipelines would be constructed to accommodate delivery of 10 MGD. An off-site storage tank would be installed at the high point of the Phase 3 distribution pipeline to continue providing constant system pressure. Phase 3 construction activities would be similar or reduced in size and scope to the construction activities of the facility upgrades under Phase 1 and Phase 2. Construction of Phase 3 is anticipated to occur in approximately 2045. Thus, construction impacts would be similar to Phase 1 and/or Phase 2. As shown in Table 3.3-7, emissions during Phase 1 and Phase 2 would not exceed any SCAQMD air quality significance threshold and therefore would not violate a regional air quality standard. Since Phase 3 construction activities would be similar or reduced in size and scope when compared to the construction activities of the facility upgrades under Phase 1 and Phase 2, impacts related to an increase in criteria pollutant for Phase 3 would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Phases 1, 2, and 3

The proposed 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. Potential impacts would be less than significant.

Operation

Implementation of Phases 1, 2 and 3 would not require new sources of stationary emission sources (such as emergency generators). During operation of the proposed project, minimal amounts of emissions could be generated from the pumps and maintenance operations, including routine cleaning and from periodic visits from service vehicles. The proposed project would also include some long-term energy consumption from the increase in electricity usage associated with the use of electric pumps, meters, UV system, and electrical room. Electrical energy associated with the operation of the pipelines and reservoir would not result in direct emissions of criteria pollutants. Although the pipelines would involve the transportation or storage of water, the projects do not directly use water or generate wastewater; therefore, no water usage was modeled for this analysis. The proposed project is not a land use project which typically would have emissions associated with mobile sources. Mobile sources associated with the proposed project would only occur from occasional and periodic vehicle trips by workers for inspection and maintenance purposes.

Thus, during operation of the proposed project, minimal amounts of emissions could be generated from maintenance operations (two trucks per week), including routine cleaning and from periodic visits from service vehicles, and regular deliveries of various chemicals (up to five chemical truck deliveries per month). Additionally, the project would not result in any new combustion sources directly related to the long-term project operations. As a result, the project would be a source of occasional and periodic (i.e., not routine daily) indirect emissions rather than direct emissions. Operation of the proposed project would

not generate emissions that would exceed the SCAQMD thresholds of significance and impacts related to an increase in criteria pollutant for Phase 1, 2, and 3 would therefore be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Sensitive Receptors

Impact 3.3-3: Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

Localized Emissions

Phases 1 and 2

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. Potential impacts would be less than significant.

Construction

As explained above, the localized construction air quality analysis was conducted using the methodology prescribed in the SCAQMD *Final Localized Significance Threshold Methodology*.¹¹ The SCAQMD screening criteria provided in the *Final Localized Significance Threshold Methodology* were used to determine localized construction emissions thresholds for the proposed project. The maximum daily localized construction emissions for the project were estimated for each construction phase and analyzed using screening criteria applicable to SCAQMD SRA 30 (Coachella Valley) with sensitive receptors located adjacent to the project site. The maximum daily localized emissions for each of the construction phases and the localized significance thresholds are presented in **Table 3.3-8**. As shown, Phases 1 and 2 localized emissions would not exceed the most stringent localized significance thresholds in SCAQMD SRA 30. Therefore, impacts would be less than significant.

TABLE 3.3-8
ESTIMATED MAXIMUM UNMITIGATED LOCALIZED CONSTRUCTION EMISSIONS
(POUNDS PER DAY)^a

Construction Phases	NO _x	CO	PM10 ^b	PM2.5 ^b
Phase 1				
	60.5	71.3	3.5	2.1
Phase 2				
	65.5	84.7	3.3	2.2
Maximum Daily Localized missions				
SCAQMD Localized Significance Threshold ^c	132	878	4	3
Exceeds Threshold?	No	No	No	No

¹¹ SCAQMD, Final Localized Significance Threshold Methodology, June 2003 and revised July 2008. Referenced for Source Receptor Area 3 (Northwest Los Angeles County Coastal) for a 2.23-acre site interpolating from LST values from 1-acre and 5-acre sites.

Construction Phases	NO _x	CO	PM10 ^b	PM2.5 ^b
Notes:				
a. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix C.				
b. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.				
c. The SCAQMD LSTs are based on Source Receptor Area 30 (Coachella Valley) for a 1-acre site with sensitive receptors conservatively located adjacent to the construction area.				
Source: ESA 2024				

Phase 3

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. Potential impacts would be less than significant.

Construction

Phase 3 construction activities would be similar or reduced in size and scope to the construction activities of the facility upgrades under Phase 1 and Phase 2. Construction of Phase 3 is anticipated to occur in approximately 2045. Thus, construction impacts would be similar to Phase 1 and/or Phase 2. As shown in Table 3.3-8, localized emissions during Phase 1 and Phase 2 would not exceed any SCAQMD localized significance threshold and therefore would not expose sensitive receptors to substantial pollutant concentrations. Since Phase 3 construction activities would be similar or reduced in size and scope compared to the construction activities of the facility upgrades under Phase 1 and Phase 2, impacts related to localized emissions for Phase 3 would be less than significant.

Phases 1, 2, and 3

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. Potential impacts would be less than significant.

Operation

Implementation of Phases 1, 2 and 3 would not require new sources of stationary emission sources (such as emergency generators). During operation of the proposed project, minimal amounts of emissions could be generated from the pumps and maintenance operations, including routine cleaning and from periodic visits from service vehicles. The proposed project would also include some long-term energy consumption from the increase in electricity usage associated with the use of electric pumps, meters, UV system, and electrical room. Electrical energy associated with the operation of the pipelines and reservoir would not result in direct emissions of criteria pollutants. Although the pipelines would involve the transportation or storage of water, the projects do not directly use water or generate wastewater; therefore, no water usage was modeled for this analysis. The proposed project is not a land use project which typically would have emissions associated with mobile sources. Mobile sources associated with the proposed project would only occur from occasional and periodic vehicle trips by workers for inspection and maintenance purposes.

Thus, operation of the proposed project would not generate localized emissions that would exceed the SCAQMD thresholds of significance and impacts related to an increase in localized emissions for Phase 1, 2, and 3 would therefore be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

CO Hotspots

Phases 1, 2, and 3

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. Potential impacts would be less than significant.

Construction

As shown previously in Table 3.3-5, above, CO levels in the proposed project area are substantially below the federal and state standards. Maximum CO levels in recent years are 3.3 ppm (one-hour average) and 1.8 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 22 monitoring stations in the latest three years for which there is data, as shown in Table 3.3-5, 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. As the proposed project would add only a minimal amount of trips through any intersection within the CVWD service area, 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 WRP 4. During operation of the proposed project, minimal amounts of CO emissions would be generated from maintenance operations (two trucks per week), including routine cleaning and from periodic visits from service vehicles, and regular deliveries of various chemicals (up to five chemical truck deliveries per month). The limited amount of vehicle trips associated with 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

Phases 1, 2, and 3

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. Potential impacts would be less than significant.

Construction

Temporary TAC emissions associated with diesel particulate matter emissions from heavy construction equipment would occur during construction activities and could result in exposure at nearby sensitive receptors. According to OEHHA guidance manual and the SCAQMD's Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis,¹² health effects from TACs are described in terms of individual cancer risk based on a lifetime (i.e., 70-year) resident exposure duration. Construction activities associated with the proposed project would occur at various locations within the 60-acre WRP 4 site at distances ranging from 260 to 2,000 feet from the nearby sensitive receptor located on 62nd Avenue. Construction activities associated with pipeline installation during Phases 1, 2, and 3 could occur as close as 25 feet from a sensitive receptor but would occur linearly as pipeline segments are constructed and would not be concentrated at a single location. As a result, health risk impacts at specific sensitive receptors would not be anticipated due to the movement of construction activities around the project site and pipeline routes and short time frame near any single receptor. Additionally, as shown in Table 3.3-7, the proposed project construction PM₁₀, DPM and PM_{2.5} emissions are below the SCAQMD thresholds. Further, given the temporary and short-term construction schedule, approximately 20 months for Phase 1 and approximately 27 months for Phase 2, the proposed project would not result in a long-term (i.e., lifetime or 70-year) exposure. 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 SCAQMD recommends that operational health risk assessments be conducted for substantial sources of operational diesel particulate matter (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions.¹³ The proposed project is not a land use project which typically would have emissions associated with mobile sources from periodic vehicle trips by workers for inspection and maintenance purposes. During operation of the proposed project, minimal amounts of emissions could be generated from maintenance operations, including routine cleaning and from periodic visits from service vehicles, and regular deliveries of various chemicals. Mobile source emissions would be generated from maintenance operations (two trucks per week), including routine cleaning and from periodic visits from service vehicles, and regular deliveries of various chemicals (up to five chemical truck deliveries per month), which is well below the 100 trucks per day required for an operational health risk assessment. Additionally, the project would not result in any new combustion sources directly related to the long-term project operations.

In addition, project operations would only result in minimal emissions of TACs from maintenance or other ongoing activities, such as the use of architectural coatings and other products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any substantial amounts in conjunction with operation of the proposed land uses within the project site. Based on the uses expected on the project site,

¹² SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, August 2003, <http://www.aqmd.gov/docs/default-source/ceqa/handbook/mobile-source-toxics-analysis.doc?sfvrsn=2>. Accessed September 2023.

¹³ SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, August 2003.

potential long-term operational impacts associated with the release of TACs would be minimal, regulated, and controlled, and would not be expected to exceed the SCAQMD numerical indicator of significance. Thus, operation of the proposed project would not expose sensitive receptors to substantial TAC concentrations, and operation-related health impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Fugitive Dust and Particulate Matter

Phases 1, 2, and 3

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. Potential impacts would be less than significant.

Construction

The project would generate exhaust particulate matter emissions (primarily PM10 and PM2.5 exhaust emissions) and fugitive dust emissions (primarily PM10 fugitive dust) particularly during construction from site grading and earth-moving activities. Fugitive dust emissions are primarily associated with earth disturbance and grading activities, and vary as a function of soil silt content, soil moisture, wind speed, acreage of disturbance area, and miles traveled by vehicles on- and off-site. The majority of this fugitive dust will remain localized and will be deposited near the WRP 4 facility and the proposed pipeline alignments.

The project would be required to comply with SCAQMD Rule 403, which includes implementation of all applicable and required dust control measures specified in the rule. Dust control measures include but are not limited to: watering or pre-watering of disturbed soils, watering or pre-watering soils while loading or unloading, limiting vehicular traffic and disturbances on soils, limiting on-site vehicle speeds to 15 miles per hour, using tarps or other enclosures on haul trucks, using wheel washers or other such devices to remove soil material from vehicle tires to prevent dust track-out onto off-site streets, and other similar dust control measures. Additionally, as discussed above, construction would not exceed the localized significance thresholds for PM10 or PM2.5. Regulatory compliance and dust control measures would ensure that fugitive dust and particulate matter impacts would be less than significant.

Operation

Implementation of Phases 1, 2 and 3 would not require new sources of stationary emission sources (such as emergency generators). As previously discussed, operation of the proposed project would not generate regional or localized emissions that would exceed the SCAQMD thresholds of significance and operational impacts related to region and localized emissions would be less than significant.

Salton Sea

As the Salton Sea recedes, the exposed lakebed around the perimeter of the sea expands, exposing emissive soils on the playa to wind erosion. Wind erosion significantly degrades air quality in the Imperial and Coachella Valleys due to both dust and airborne toxic contaminants contained in the exposed lakebed sediments.

The proposed project through Phase 3 would reduce surface water inflows to the Salton Sea by up to 0.58 percent compared to current cumulative inflows. To assess the proposed project's contribution to the increase in exposed lakebed, an analysis was conducted using the Salton Sea Accounting Model (SSAM) presented in **Appendix HYDRO-2. Table 3.3-9** summarizes results from the SSAM analysis included in Appendix HYDRO-2. As summarized in the table, implementation of proposed project through Phase 3 may result in approximately 602 acres of exposed lakebed by 2045. **Figure 3.3-1** presents the data in graphic layout. **Table 3.3-10** provides the results of the SSAM model for Phases 1 and 2 immediately following their implementation, that results in no appreciable increase in exposed acreage within the first year of the flow reductions. However, by the year 2036 following the implementation of Phase 3, the effect begins to appear (310 acres by 2036).

To address the effects from cumulative inflow reductions (which are anticipated from the Imperial Valley primarily), DWR and CDFW have prepared the SSMP and Long-Range Plan which identify specific projects to be developed around the perimeter of the Sea to maintain habitat values and decrease dust emissions caused by wind erosion. As shown in Figure 3.3-1, the modeling estimates that a total of over 70,000 acres may be exposed by the year 2045. The SSMP Team is currently implementing its Phase 1: 10-Year Plan to establish at least 14,900 acres of dust suppression projects by the year 2028. According to the Long-Range Plan Annual Report for the year 2024 (DWR and CDFW, 2025), 2,303 acres of dust suppression projects have been constructed so far. Projects under consideration at the Sea as part of the Phase 1: 10-Year Program include the SCH Project, SCH Expansion Project, SCH Vegetation Project, Kane Springs, San Felipe Fan, Tule Wash, Clubhouse, Desert Shores Channel Restoration Project, North Lake Project, North Lake Pilot Demonstration Project, West Bombay Beach, Audubon Bombay Beach Wetland Restoration Project, and the Wister Unit Marsh Bird Habitat Restoration Project (DWR and CDFW 2024). The ultimate implementation of these projects is mandated by the SWRCB under WRO-2017-0134. These projects each target areas particularly susceptible to dust erosion due to the soil types. Some areas of the exposed playa are less susceptible to dust emissions, and other exposed areas have been re-vegetated naturally, irrigated by the agricultural drainages traversing the exposed shorelines.

**TABLE 3.3-9
COMPARISON OF SSAM RESULTS FOR YEAR 2045**

Scenario	Inflow (AFY)	Elevation (ft. NAVD88)	Salinity (PPM)	Playa Area (Acre)
Comparison of Coachella Valley Existing Inflows With and Without WRP 4 Project				
Coachella Valley Existing Inflows	896,438	-249.4	153,649.0	73,239
Coachella Valley Existing Inflows with WRP 4 Project	890,053	-249.6	155,836.6	73,841
Difference	-6,385	-0.2	2,188	602
Comparison of Coachella Valley Existing Inflows With WRP 4 Project and LRP High Probability Scenario				
Scenario				
Coachella Valley Existing Inflows with WRP 4 Project	890,053	-249.6	155,836.6	73,841
LRP High Probability	889,438	-249.6	155,968.4	73,841
Difference	615	0	-132	0
Source: Appendix HYDRO-2				

TABLE 3.3-10
COMPARISON OF COACHELLA VALLEY EXISTING INFLOWS WITH AND WITHOUT WRP 4 PROJECT AT EACH PHASE IMPLEMENTATION DATE

	Inflow (AFY)	Playa Area (Acre)
Phase 1 (2028)		
Coachella Valley Inflow Existing Condition	1,002,893	51,585
Coachella Valley Inflow Existing Conditions with WRP 4 Project	1,001,773	51,585
Difference	-1,120	0
Phase 2 (2031)		
Coachella Valley Inflow Existing Condition	957,270	55,822
Coachella Valley Inflow Existing Conditions with WRP 4 Project	954,470	55,822
Difference	-2,800	0
Phase 3 (2036)		
Coachella Valley Inflow Existing Condition	896,438	64,958
Coachella Valley Inflow Existing Conditions with WRP 4 Project	890,053	65,299
Difference	-6,385	341
Source: Appendix HYDRO-2		

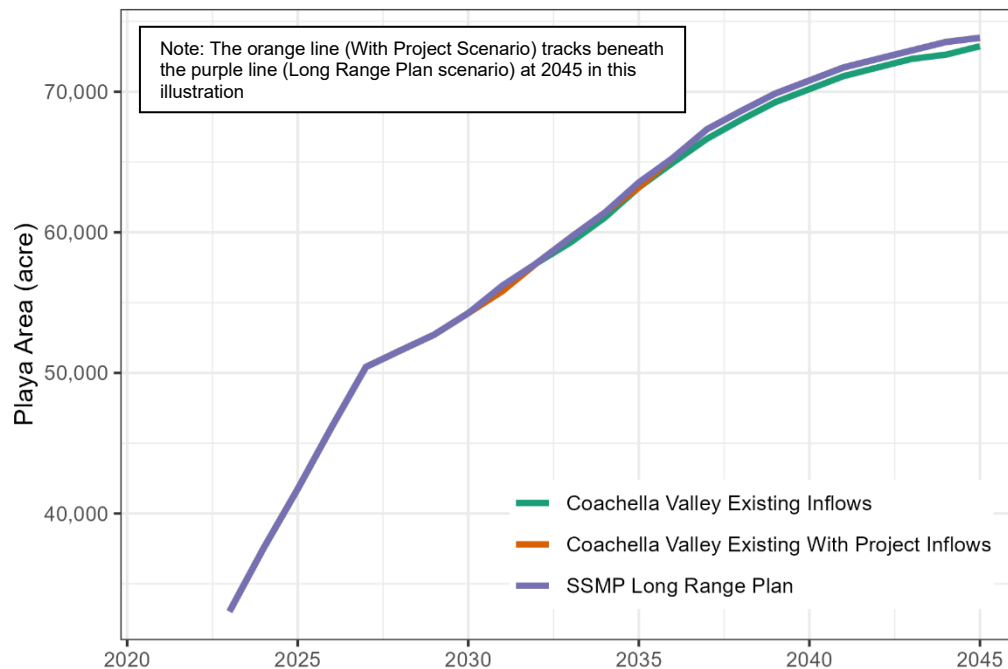


Figure 3.3-1
Modeled Estimates of Salton Sea Playa Area (acres)

The SSMP and Long-Range Plan anticipate inflow reductions from Coachella Valley resulting from recycled water projects including the proposed WRP 4 project. As a result, the proposed project would be consistent with the SSMP and Long-Range Plan's projections of inflows from the Coachella Valley. The

amount of exposed playa potentially resulting from the flow reductions is included in the SSMP's 14,900-acre objective. The projects currently being implemented by DWR and CDFW are designed to accommodate a lower and saltier Salton Sea, anticipating flow reductions caused by the proposed project. As a result, the proposed project would not create additional effects not already anticipated by DWR and CDFW, and the projects under construction by DWR will minimize the effect to air quality from the percentage of exposed playa caused by the WRP 4 Project.

Since the proposed project's inflow reductions would not increase exposed playa acreage compared with the area anticipated by the Long-Range Plan (see Appendix HYDRO-2), it would not substantially contribute to increased dust emissions that would require additional dust suppression treatment. Impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Valley Fever

Phases 1, 2, and 3

The proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Mitigation Measure AQ-1 would be implemented to reduce impacts to workers and the surrounding community. Potential impacts would be less than significant with mitigation.

Valley Fever is an infective disease caused by the fungus *Coccidioides immitis*. Infection occurs via inhalation of *Coccidioides immitis* spores that have become airborne from the upturn of dry, dusty soil by wind, construction, farming, or other activities. Several factors indicate a project's potential to expose sensitive receptors to Valley Fever: disturbance of the top soil of undeveloped land (to a depth of about 12 inches); dry, alkaline, sandy soils; virgin, undisturbed, non-urban areas; windy areas; and archaeological resources probable or known to exist in the area (Native American midden sites) (Ventura County Air Pollution Control District 2003).

Construction

Construction activities for the proposed project could result in exposure of sensitive receptors to Valley Fever in the arid, desert portions of the unincorporated areas. In particular, construction activities that disturb topsoil, especially of undeveloped land, have the potential to cause *Coccidioides immitis* spores in soil to become airborne. Compliance with rules and other measures that reduce emissions of fugitive dust, such as SCAQMD Rule 403, would also reduce the potential for *Coccidioides immitis* spores in soil to become airborne. Construction workers and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. The proposed project would have the potential to expose persons to the spores that cause Valley Fever from fugitive dust generated during construction, which would be a significant impact. Compliance with independently enforceable requirements, including SCAQMD fugitive dust control rules (e.g., Rule 403), and applicable California Division of Occupational Safety and Health (Cal-OSHA) requirements for protection of construction workers, would reduce impacts to a less than significant level (CDIR 2022). Such compliance would require the control and mitigation of all sources of construction-related fugitive dust, and thereby potential sources of airborne

Coccidioides immitis spores, to or below applicable regulatory limits (i.e., SCAQMD Rule 403). Onsite workers are the most at risk of contracting Valley Fever, due to their proximity to the potentially impacted soils. Much of the project site has been previously disturbed, thus reducing the potential for impacts, however due to the undeveloped nature of the portions of the project site, there is a potential for exposure that can be further reduced with implementation of mitigation. With the implementation of **Mitigation Measure AQ-1**, impacts to workers and the surrounding community would be reduced to be less than significant.

Operation

Operational activities would not include ground disturbance, therefore *Coccidioides immitis* spores would not be disturbed and Valley Fever would not be an issue. Thus, operation of the proposed project would not expose sensitive receptors to substantial *Coccidioides immitis* spores, and operation-related health impacts would be less than significant.

Mitigation Measures

Mitigation Measure AQ-1: Valley Fever. During heavy grading where the top 12 inches of soil would be disturbed in locations with dry, alkaline, sandy soils that have been undisturbed, construction contractors will be required to comply with the following measures to reduce potential Valley Fever impacts:

- Worker training will be provided to all workers focusing on Valley Fever and dust suppression practices to minimize exposure risk, including site watering protocols. The Contractor shall follow safe work practices in accordance with Cal-OSHA regulations.
- Construction contractors shall maintain a record of training and listing of safe practices implemented.
- Construction contractor shall monitor Valley Fever safeguards and public notices put forth by the Riverside County Department of Environmental Health, SCAQMD, and other applicable entities, to inform and protect construction crews appropriately in the event of a local outbreak. Contractor shall follow the local agency and Cal-OSHA guidelines for construction activities in the event of a local outbreak.

Significance Determination

Less than Significant Impact with Mitigation

Other Emissions

Impact 3.3-4: Would the proposed project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Phases 1, 2, and 3

The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Potential impacts would be less than significant.

Construction

During the construction phase of the proposed project, exhaust from construction equipment may produce other emissions such as those leading to odors typical of most construction sites; however, such other emissions and odors would be temporary. The proposed project would comply with the applicable provisions of the CARB ATCM regarding idling limitations for diesel trucks minimizing the potential to

adversely affect a substantial number of people. Through mandatory compliance with SCAQMD Rules, the proposed project's construction activities and use of materials are not expected to create other emissions, including objectionable odors, affecting a substantial number of people. Therefore, construction impacts related to other emissions such as those leading to odors would be less than significant.

Operation

According to the SCAQMD's CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project would involve upgrading treatment at WPR 4 of non-potable recycled water for irrigation. As such the operation of the WRP 4 and pipelines would involve the storage and conveyance of water. The pipelines would be buried and enclosed and would not generate odors. Implementation of the proposed project would not result in the introduction of any new processes that are considered to have a high odor-generation potential¹⁴ beyond existing conditions and would not result in substantial changes to treatment processes that are of primary concern with regard to odor generation. In addition, the existing facility has not had any odor complaints to the SCAQMD and would continue to comply with SCAQMD Rule 402. Therefore, objectionable odor impacts affecting a substantial number of people from the proposed project would not occur from the operation of these facilities.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Greenhouse Gas Emissions

Impact 3.3-5: Would the proposed project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Phase 1

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Potential impacts would be less than significant.

Construction

CalEEMod was used to prepare estimates of annual GHG emissions for the proposed project using the same construction assumptions and the types of projects that would occur in a year as the Air Quality analysis discussed above. **Table 3.3-11** summarizes the modeled worst-case annual GHG emissions that are estimated to occur for Phase 1 of the proposed project.

¹⁴ According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The facility is an existing wastewater treatment facility; thus, the Project does not introduce a new odor source.

TABLE 3.3-11
PHASE 1 – ESTIMATED CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS

Emission Source	CO₂e Emissions (MT/yr.)
Construction Year 2027	356
Construction Year 2028	407
Construction Year 2029	59
Total Construction Emissions	822
Amortized Construction Emissions (30 years)	27
<i>GHG Significance Threshold</i>	<i>10,000</i>
Exceeds Significance Threshold?	No
CO ₂ e= carbon dioxide equivalent; MT/yr = metric tons per year.	
Source: ESA 2024.	

As shown in Table 3.3-11, construction of the proposed project under Phase 1 would produce approximately 822 MTCO₂e, or 27 MTCO₂e per year amortized over a 30-year period. This mass rate is substantially below the most applicable quantitative draft interim threshold of 10,000 MTCO₂e per year as recommended by the SCAQMD, representing only < 0.01 percent of the limit designed to capture 90 percent of CEQA projects within the SCAQMD jurisdiction. Therefore, construction of Phase 1 would result in a less than significant impact related to GHG emissions.

Phase 2

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Potential impacts would be less than significant.

Construction

CalEEMod was used to prepare estimates of annual GHG emissions for Phase 2. **Table 3.3-12** summarizes the annual GHG emissions that are estimated to occur during construction of Phase 2.

TABLE 3.3-12
PHASE 2 – ESTIMATED CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS

Emission Source	CO₂e Emissions (MT/yr.)
Construction Year 2030	273
Construction Year 2031	563
Construction Year 2032	132
Total Construction Emissions	967
Amortized Construction Emissions (30 years)	32
<i>GHG Significance Threshold</i>	<i>10,000</i>
Exceeds Significance Threshold?	No
CO ₂ e= carbon dioxide equivalent; MT/yr = metric tons per year.	
WWTF expansion was modeled as one 1000 LF ft pipeline install, and the equivalent of one of each of the following: storage tank construction, pump station and lift station construction.	
Source: ESA 2024.	

As shown in Table 3.3-12, construction of Phase 2 would produce approximately 967 MTCO₂e, or 32 MTCO₂e per year amortized over a 30-year period. This mass rate is substantially below the most applicable quantitative draft interim threshold of 10,000 MTCO₂e per year as recommended by the SCAQMD. Even if Phase 1 and Phase 2 amortized GHG emissions are added together, the resultant 59 MTCO₂e per year amortized GHG emissions would not exceed the threshold. Therefore, construction of Phase 2 would result in a less than significant impact related to GHG emissions.

Phase 3

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Potential impacts would be less than significant.

Construction

Phase 3 construction activities would be similar or reduced in size and scope to the construction activities for the facility upgrades under Phase 1 and Phase 2. Therefore, Phase 3 would require similar construction activities and would produce similar GHG emissions as the other two phases analyzed above. As shown in Tables 3.3-11 and 3.3-12, construction GHG emissions under Phase 1 and Phase 2 would not exceed any SCAQMD air quality significance threshold and therefore would not result in a significant impact. Since Phase 3 impacts would be similar to Phases 1 and 2, construction of Phase 3 would result in a similarly low level of GHG emissions, substantially below the draft interim threshold of 10,000 MTCO₂e per year as recommended by the SCAQMD. Therefore, Phase 3 (as well as the combined Phases 1, 2, and 3) would result in a less than significant impact related to GHG emissions.

Salton Sea

With respect to the Salton Sea, studies have shown that bio-chemical processes within the Sea produce GHG emissions. These emissions are part of the existing condition, and would not be affected by the proposed project. As cumulative freshwater flow into the Salton Sea decreases in the future, there are concerns that bio-chemically generated GHG emissions may increase from the sea. The proposed project's flow reductions reflect 0.58 percent of the projected reduction of inflows to the Salton Sea by the year 2045. This small contribution would result in an elevation change of approximately 0.2 feet. This small elevation change would not substantially affect the biochemical processes in the sea that generate GHG emissions. These emissions will occur with or without the proposed project due to the cumulative conditions. Impacts of the proposed project would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Phases 1, 2, and 3

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Potential impacts would be less than significant.

Operation

Once fully operational, the proposed project would generate indirect GHG emissions from electrical consumption to power the additional electric pumps, meters, UV system, and electrical room associated

with the WRP 4 expansion. Operation of additional pipelines would involve additional energy usage to transmit water in the project area; however, these activities are not expected to result in substantial GHG emissions. The proposed project is not a land use project which typically would have GHG emissions associated with mobile sources. As previously stated, the proposed project would have minimal amounts of emissions generated from periodic (two trucks per week) visits from service vehicles for inspection and maintenance purposes (up to five chemical truck deliveries per month). There are no known new sources of stationary emission sources (such as emergency generators) anticipated for the proposed project. Therefore, Phases 1, 2, and 3 operational GHG emissions of the proposed project would result in a less than significant impact.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

General Conformity Determination

Under Section 176(c)(1) of the federal CAA, federal agencies that “engage in, support in any way or provide financial assistance for, license or permit, or approve any activity”¹⁵ must demonstrate that such actions do not interfere with state and local plans to bring an area into attainment with the NAAQS. Riverside County is designated extreme non-attainment for the federal 8-hour ozone NAAQS, non-attainment serious for the federal PM10 standards. The program by which a federal agency determines that its action would not obstruct or conflict with air quality attainment plans is called “General Conformity.” The implementing regulations for General Conformity are found in 40 CFR 93(B).¹⁶

Under the General Conformity regulations, both the direct and indirect emissions associated with a federal action must be evaluated. Direct emissions are defined as:

*Those emissions of a criteria pollutant or its precursors that are caused or initiated by the federal action and originate in a nonattainment or maintenance area and occur at the same time and place as the action and are reasonably foreseeable.*¹⁷

Indirect emissions are defined as:

Those emissions of a criteria pollutant or its precursors:

- 1. That are caused or initiated by the federal action and originate in the same nonattainment or maintenance area, but occur at a different time or place as the action;*
- 2. That are reasonably foreseeable;*
- 3. That the agency can practically control; and*
- 4. For which the agency has continuing program responsibility.*¹⁸

¹⁵ 42 USC 7506(c).

¹⁶ General conformity regulations were amended effective July 6, 2010. (75 FR 17254 (April 5, 2010)).

¹⁷ 40 CFR 93.152 (as revised April 5, 2010, effective July 6, 2010; 75 FR 17273).

¹⁸ 40 CFR 93.152 (as revised April 5, 2010, effective July 6, 2010; 75 FR 17273).

For purposes of this definition, even if a federal licensing, rulemaking, or other approving action is a required initial step for a subsequent activity that causes emissions, such initial steps do not mean that a federal agency can practically control any resulting emissions.¹⁹

When describing the 2010 revisions to the definition of indirect emissions, USEPA offered the following explanation:

EPA is revising the definition for indirect emissions to clarify that only indirect emissions originating in a nonattainment or maintenance area need to be analyzed for conformity with the applicable SIP. In addition, EPA is revising the definition of “indirect emissions” to clarify what is meant by “the agency can practically control” and “for which the agency has continuing program responsibility.”

This clarification represents USEPA’s long standing position that Congress did not intend for conformity to apply to “cases where although licensing or approving action is a required initial step for a subsequent activity that causes emissions, the agency has no control over that subsequent activity, either because there is no continuing program responsibility or ability to practically control.”²⁰

The General Conformity regulations incorporate a stepwise process, beginning with an applicability analysis. Before any approval is given for a federal action to go forward, the regulating federal agency must apply the applicability requirements found at 40 CFR 93.153(b) to the federal action to evaluate whether, on a pollutant-by-pollutant basis, a determination of General Conformity is required. The guidance states that the applicability analysis can be (but is not required to be) completed concurrently with the NEPA analysis. If the regulating federal agency determines that the General Conformity regulations do not apply to the federal action, no further analysis or documentation is required. If the General Conformity regulations do apply to the federal action, the regulating federal agency must next conduct a conformity evaluation in accordance with the criteria and procedures in the implementing regulations, publish a draft determination of General Conformity for public review, and then publish the final determination of General Conformity.

A conformity determination is required for each criteria pollutant or precursor where the total of direct emissions of the criteria pollutant or precursor in a federal non-attainment or maintenance area would equal or exceed specified annual emission rates, referred to as “de minimis” thresholds.” These de minimis thresholds are provided in 40 CFR 93.153(b)(1) and (2). For ozone precursor emissions, the de minimis thresholds depend on the severity of the non-attainment classification. In an extreme ozone non-attainment area, the de minimis thresholds are 10 tons per year for both NO_x and VOC (or ROG see Section 3.3.1 above for additional details). In a PM₁₀ serious non-attainment area, the de minimis thresholds are 70 tons per year. Thus, based on the present attainment status of the Riverside County portion of the air basin, a federal action would conform to the SIP if its annual emissions remain below 10 tons of VOC or NO_x and 70 tons of PM₁₀. PM₁₀ annual emissions include direct emissions, NO_x and VOC per *de minimis* guidelines.

The General Conformity regulations require that a General Conformity determination analyze the following emissions scenarios: (1) the attainment year specified in the SIP, or if the SIP does not specify

¹⁹ 40 CFR 93.152 (as revised April 5, 2010, effective July 6, 2010; 75 FR 17273).

²⁰ 75 FR 17260 (April 5, 2010).

an attainment year, the latest attainment year possible under the Act; or (2) the last year for which emissions are projected in the maintenance plan; (3) the year during which the total of direct and indirect emissions from the action is expected to be the greatest on an annual basis; and (4) any year for which the applicable SIP specifies an emissions budget (40 CFR 93.159(d), as amended, effective July 6, 2010).

For informational purposes, the year during which emissions are the greatest (2031) and all other construction years are analyzed under the *de minimis* thresholds. Implementation of the project would also be subject to CARB requirements for construction activities to minimize short-term emissions from on-road and off-road diesel equipment. Operation of the proposed project could generate minimal amounts of emissions from the pumps and maintenance operations, including routine cleaning and from periodic visits from service vehicles. The operation of the project would not be a substantial source of emissions, and therefore, only construction emissions are presented below.

Annual emissions for the project were compared to the General Conformity *de minimis* levels for NAAQS non-attainment areas (see **Table 3.3-13**). As shown, annual construction emissions of VOC, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} are presented and would be below all applicable General Conformity thresholds and thus in conformance with the SIPs. Additionally, short-term direct construction emissions associated with the project would not conflict with or obstruct implementation of applicable long-term air quality management plans. Therefore, no further conformity analysis is required for any of the pollutants because their emissions would be less than the conformity thresholds, and no significant adverse effect from the project would occur.

TABLE 3.3-13
GENERAL CONFORMITY ANALYSIS – SUMMARY OF PROJECT CONSTRUCTION EMISSIONS BY YEAR (2027-2032)
(TONS PER YEAR)

Year	Project Emissions (tons/yr)					
	VOC	NO _x	CO	SO ₂	PM ₁₀ ^b	PM _{2.5} ^b
Phase 1						
2027	0.2	1.7	2.1	0.0	0.1	0.1
2028	0.2	1.6	2.2	0.0	0.1	0.1
2029	0.1	0.2	0.3	0.0	0.0	0.0
Phase 2						
2030	0.1	1.0	1.4	0.0	0.1	0.0
2031	0.3	2.2	2.9	0.0	0.1	0.1
2032	0.1	0.5	0.6	0.0	0.0	0.0
De Minimus Levels^a	10	10	NA	NA	70	NA
Exceeds Levels?	No	No	No	No	No	No

a. De minimus levels are based on USEPA's General Conformity De Minimis Tables based on Riverside County's attainment status for pollutants.

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

Source: ESA, 2024.

Greenhouse Gas Emissions Plans

Impact 3.3-6: Would the proposed project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

Phases 1, 2, and 3

The proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Potential impacts would be less than significant.

Construction

As discussed in Impact 3.3-5, the GHG emissions generated by the construction and operation of Phases 1, 2, and 3 would not exceed the SCAQMD's significance threshold of 10,000 MT CO₂e per year. The primary source of GHG emissions generated by project implementation would occur during construction, which would be temporary in nature. The proposed project would utilize contractors that would comply with regulations including the USEPA Heavy Duty Vehicle Greenhouse Gas Regulation, CARB ACTM that limits heavy-duty diesel motor vehicle idling, and the low carbon fuel standard. Compliance with these regulations would limit construction-related GHG emissions.

Operation

The objectives of the project, as described in Chapter 2, *Project Description*, includes providing non-potable water to serve agricultural users as well as other landscape irrigation customers in the CVWD service area, optimize use of recycled water for beneficial uses in an environmentally sound and cost efficient manner, provide an alternate water supply for local irrigation that is not local groundwater or imported Colorado River water, and reduce pollutant discharges to receiving waters. The proposed project is not a land use project which typically would have GHG emissions associated with mobile sources from periodic vehicle trips but would have minimal amounts of emissions generated from periodic (two trucks per week) visits from service vehicles for inspection and maintenance purposes, and up to five chemical truck deliveries per month. The operation of the project itself would not increase water demand or wastewater generation. Rather, the project would expand existing facilities to serve agricultural and other irrigation uses in the CVWD service area. Increased electrical consumption to power the additional pumps, meters, UV system, and electrical room associated with the WRP 4 expansion would generate minimal GHG emissions. The electric utility provider that would provide the additional energy would be required to comply with the State's Renewables Portfolio Standard. Consequently, the implementation of the proposed project would not generate substantial amounts of GHG emissions that would impede the future statewide GHG emission reductions goals. CARB has outlined a number of potential strategies for achieving the 2030 reduction target of 40 percent below 1990 levels. These potential strategies include renewable resources for half of the State's electricity by 2030, reducing petroleum use in cars and trucks, and reducing the carbon content of transportation fuels. The proposed project would comply with these future regulations, as promulgated by the USEPA, CARB, CEC, or other agencies. Furthermore, the proposed project would comply with applicable policies in the County of Riverside General Plan Air Quality Element, 2019 CAP Update, and ECV CERP. As a result, the proposed project would be expected to exhibit declining GHG emissions trajectory in-line with future State GHG reductions goals codified in HSC Division 25.5 for 2030. As a result, this impact would be less than significant.

With respect to the Salton Sea, studies have shown that bio-chemical processes within the Sea produce GHG emissions. These emissions are part of the existing condition, and would not be affected by the proposed project. As cumulative freshwater flow into the Salton Sea decreases in the future, there are concerns that bio-chemically generated GHG emissions may increase from the sea. The proposed project's flow reductions reflect 0.58 percent of the projected reduction of inflows to the Salton Sea by the year 2045. This small contribution would result in an elevation change of approximately 0.2 feet. This small elevation change would not substantially affect the biochemical processes in the sea that generate GHG emissions. These emissions will occur with or without the proposed project due to the cumulative conditions. Impacts of the proposed project would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts – Air Quality

Impact 3.3-7: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to air quality?

Future cumulative development within the area indicates that development within the ECV will continue to be concentrated in key areas rather than spread uniformly throughout the county. Planned residential development in the project area is slated for areas north of the proposed project area (County of Riverside 2021). The areas in the immediate vicinity of the proposed project are planned to be maintained as agricultural land. 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 potential impacts of the proposed project would be less than cumulatively considerable. While the proposed project could result in exposure of Valley Fever fungal spores, **Mitigation Measure AQ-1** would reduce impacts to a less than significant level and would not result in a cumulative impact. As previously discussed, the proposed project is not expected to produce any new permanent vehicle trips or other 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.

Cumulative water inflows to the Salton Sea are projected to decrease in the future as a result of Colorado River water conservation efforts, changes in river flows from Mexico, thermal power and lithium water demands, climate change, and water recycling projects. Recognizing the anticipated impacts caused by the cumulative inflow reductions, including the increase in exposed lakebed, the State of California passed the Salton Sea Restoration Act (California Fish & Game Code section 2942), which requires the Secretary of CNRA to lead the state's efforts to restore the Salton Sea. The SSMP and LRP were prepared to comply with the Act and subsequent Water Rights Order WRO 2017-134 issued to respond to the foreseeable cumulative condition of a smaller Salton Sea, including anticipated cumulative inflow modifications associated with all sources, including the proposed project. The SSMP and LRP projects are each designed to anticipate these future cumulative flow reductions, consistent with direction from

WRO 2017-134 to recognize and manage a smaller Sea that will be saltier and with a lower elevation. As a result, the proposed project's contribution to the cumulative decline in elevation is considered within the reasonably foreseeable future condition currently being managed by the SSMP Team.

Furthermore, the proposed project is an integral component of the 2022 WMP, which will implement several projects that together will increase inflows to the Salton Sea from the Coachella Valley. The 2022 WMP identified water management actions to increase groundwater recharge and reduce groundwater extractions that are required to be implemented to achieve compliance with SGMA. As demonstrated in Appendix HYDRO-2, implementation of the 2022 WMP water management actions, which include the proposed project, will increase inflows to the Salton Sea from the Coachella Valley compared with existing conditions. Since these water management actions are currently being implemented by the GSAs to comply with SGMA, increased flows to the Salton Sea from the Coachella Valley represent a reasonably foreseeable future condition. As a result, the proposed project's contribution to cumulative impacts would not be considerable and cumulative impacts would be less than significant.

Mitigation Measures

Implement **Mitigation Measure AQ-1**.

Significance Determination

Less than Significant Impact with Mitigation

Cumulative Impacts – GHG Emissions

Impact 3.3-8: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to greenhouse gas emissions?

Because the proposed project would be consistent with all relevant GHG reduction plans and policies, the project's contribution to cumulative GHG reduction plans and policies impacts would be less than cumulatively considerable. Therefore, the project's cumulative impact 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 Biological Resources

This section addresses the potential impacts related to biological resources associated with implementation of the proposed project. This section includes a description of existing biological resources in the project area that could experience either direct, indirect, or cumulative effects; a summary of applicable regulations related to biological resources; and an evaluation of the potential for the proposed project to result in environmental impacts to the biological resources. The analysis is supported by a Biological Resources Technical Report (BRTR) included as **Appendix BIO**, which compiles biological resources information of the project area that could be affected by the proposed project. The analysis in this Draft Environmental Impact Report (EIR) Section 3.4 is supported by the BRTR, and also includes an assessment of potential indirect effects to the Salton Sea that could result from implementation of the proposed project.

3.4.1 Regulatory Framework

Federal

Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. FESA is intended to operate in conjunction with the National Environmental Policy Act to help protect the ecosystems upon which endangered and threatened species depend. FESA prohibits the “take” of endangered or threatened wildlife species. “Take” is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [(3)(19)]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 Code of Federal Regulations [CFR] Section 17.3). “Harass” is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR Section 17.3). Actions that result in take can result in civil or criminal penalties.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) generally prohibits the killing, possessing, or trading of migratory birds, bird parts, eggs, and nests, except as provided by the statute. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds. It further provides that it is unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird...” (16 United States Code [USC] 703).

The MBTA, first enacted in 1916, prohibits any person, unless permitted by regulations, to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention...for the protection of migratory birds...or any part, nest, or egg of any such bird” (16 U.S. Code 703).

Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) is authorized to regulate any activity that would result in the discharge of dredged or fill material into jurisdictional waters of the United States, which include those waters listed in 33 CFR Part 328 (Definitions). USACE, with oversight by the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 Permits.

Pursuant to Section 401 of the CWA, the Regional Water Quality Control Board (RWQCB) certifies that any discharge into jurisdictional waters of the United States will comply with state water quality standards. The RWQCB, as delegated by USEPA, has the principal authority to issue a CWA Section 401 water quality certification or waiver. Based on the literature and database review and biological resources assessment, the project does not impact waters subject to the Section 401 and 404 of the CWA.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act was originally enacted in 1940 as the Bald Eagle Protection Act to protect bald eagles and was later amended to include golden eagles. The Act prohibits the taking, possession, or commerce of bald and golden eagles, parts, feathers, nests, or eggs with limited exceptions. Take is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb”, and includes both direct taking of individuals and take due to disturbance. “Disturb” is defined as (50 CFR 22.3):

“to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to any eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

The definition of “disturb” is further defined by the United States Fish and Wildlife Service (USFWS) (2007) as follows:

“In addition to immediate impacts, this definition also covers impacts that result from human-caused alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagles return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering.”

Bald eagles may not be taken for any purpose unless a permit is issued prior to the taking. Activities which can be authorized by permit include scientific collection/research, exhibition, tribal religious, depredation, falconry, and the taking of inactive golden eagle nests, which interfere with resource development or recovery operations. Currently, USFWS has a permitting process proposed for other activities that would allow disturbance to bald eagles or take of an eagle nest where their location poses a risk to human or eagle safety.

State

California Environmental Quality Act Guidelines, Section 15380

Although threatened and endangered species are protected by specific federal and state statutes, California Environmental Quality Act (CEQA) Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code (CFGF) dealing with rare or endangered plants or animals. This section was included in CEQA primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a candidate species that has not been listed by either USFWS or the California Department of Fish and Wildlife (CDFW). Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agencies have an opportunity to designate the species as protected, if warranted. CEQA also calls for the protection of other locally or regionally significant resources, including natural communities. Although natural communities do not at present have legal protection of any kind, CEQA calls for an assessment of whether any such resources would be affected and requires findings of significance if there would be substantial losses. Natural communities listed by California Natural Diversity Data Base (CNDDB) as sensitive are considered by CDFW to be significant resources and fall under the State CEQA Guidelines for addressing impacts. Local planning documents such as General Plans often identify these resources as well.

California Fish and Game Code

The CFGF regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the state. It includes the California Endangered Species Act (CESA) (Sections 2050–2115) and Streambed Alteration Agreement regulations (Sections 1600–1616). These sections are described further below.

CFGF Sections 1600-1616

Pursuant to Section 1600 et seq. of the CFGF, the CDFW regulates activities of an applicant's project that would substantially alter the flow, bed, channel, or banks of streams or lakes, unless certain conditions outlined by CDFW are met by the applicant. The limits of CDFW jurisdiction are defined in CFGF Section 1600 et seq. as the "bed, channel, or bank of any river, stream, or lake designated by CDFW in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit."¹ However, in practice, CDFW usually extends its jurisdictional limit and assertion to the top of a bank of a stream, the bank of a lake, or outer edge of the riparian vegetation, whichever is wider. No stream banks or other CFGF Section 1600 resources occur within the construction limits; therefore, this regulation is not applicable to the project.

CFGF Sections 3503, 3503.5, and 3513

Under these sections of the CFGF, the project operator is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey; the taking or possessing of any migratory nongame bird; the taking, possessing, or needlessly destroying of the nest or eggs of any

¹ This also includes the habitat upon which they depend for continued viability (CFGF Division 5, Chapter 1, Section 45, and Division 2, Chapter 1, Section 711.2[a]).

raptors or nongame birds; or the taking of any nongame bird pursuant to CFGC Section 3800. CFGC §3513 adopts the federal migratory bird take provisions under the MBTA that prohibit the intentional take or possession of birds designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations pursuant to the MBTA. CFGC Section 3513 does not prohibit the incidental take of birds if the underlying purpose of the activity is not to take birds.

Native Plant Protection Act (CFGC Section 1900 et seq.)

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

California Endangered Species Act (CFGC Section 2050 et seq.)

CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA. For projects that would affect a listed species under both CESA and FESA, compliance with FESA would satisfy CESA if CDFW determines that the federal incidental take authorization is “consistent” with CESA under CFGC Section 2080.1. For projects that would result in take of a species listed under the CESA only, the project operator would have to apply for a take permit under Section 2081(b). Further details about the regional Multi-Species Habitat Conservation Plan (MSHCP) are discussed in Section 3.4.2 below.

CFGC Sections 2080 and 2081

Section 2080 of the CFGC states that “No person shall import into this state [California], export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission [State Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act.” Pursuant to Section 2081, CDFW may authorize individuals or public agencies to import, export, take, or possess state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through Incidental Take permits or Memoranda of Understanding if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and the project operator ensures adequate funding to implement the measures required by CDFW, which makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

Since the Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) provides coverage for take of some State-listed species, there would not be a need for an additional 2081 permit process unless a project does not comply with NCCP/HCP requirements and may result in take of a State-listed species or if a State-listed species not covered by the NCCP/HCP were to result in take. Further details about the regional MSHCP are discussed in Section 3.4.2 below.

Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.)

The State Water Resources Control Board (SWRCB) and the RWQCB (together “Boards”) are the principal State agencies with primary responsibility for the coordination and control of water quality. The Boards regulate activities pursuant to Section 401(a)(1) of the federal CWA as well as the Porter-Cologne Water Quality Control Act (Porter-Cologne) (Water Code Section 13260). Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit to conduct any activity including but not limited to the construction or operation of facilities that may result in any discharge into navigable waters. The certification shall originate from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable water at the point where the discharge originates or will originate. Any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA.

In Porter-Cologne, the Legislature declared that the “State must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the State from degradation...” (California Water Code Section 13000). Porter-Cologne grants the Boards the authority to implement and enforce the water quality laws, regulations, policies and plans to protect the groundwater and surface waters of the State. It is important to note that enforcement of the State's water quality requirements is not solely in the purview of the Boards and their staff. Other agencies (e.g., CDFW) have the ability to enforce certain water quality provisions in state law. Based on the literature and database review and biological resources assessment, the project area does not appear to support waters that would be subject to the Porter-Cologne.

Water Recycling Policy

In February 2009, the SWRCB adopted Resolution No. 2009-0011, which established a statewide Recycled Water Policy. Draft amendments to the Recycled Water Policy were released in 2012 and 2013. The Recycled Water Policy Amendment was adopted by the SWRCB on January 22, 2013. A second Amendment was adopted in 2018. The Recycled Water Policy encourages increased use of recycled water and local stormwater to mitigate the effects of long term drought, climate change, and water supply uncertainty, in a manner that does not adversely impact water rights or unreasonably impair instream beneficial uses or place an unreasonable burden on present water supply systems.

Local***Indio Subbasin Water Management Plan Update***

To comply with the Sustainable Groundwater Management Act (SGMA), the Indio Subbasin Groundwater Sustainability Agencies (GSAs), which includes Coachella Valley Water District (CVWD), submitted the *2010 Coachella Valley Water Management Plan (CVWMP) Update* as an alternative to a Groundwater Sustainability Plan (GSP). The California Department of Water Resources (DWR) approved the “Alternative Plan” in 2019. The Indio Subbasin GSAs completed the required five-year update titled the 2022 Indio Subbasin Water Management Plan Update, Sustainable Groundwater Management Act Alternative Plan in 2021 (2022 WMP). The 2022 WMP was approved by DWR in June 2024. CVWD updated the Indio Subbasin groundwater model to support the 2022 WMP that includes simulations of future Coachella Valley subsurface drain flows for the management scenarios. The groundwater model subsurface drains flows are validated with Coachella Valley Stormwater Channel (CVSC) gage data and drain flow monitoring data collected by CVWD. The 2022 WMP identifies Management Actions to be implemented to maintain a sustainable groundwater basin in compliance with SGMA requirements. These

Management Actions include Near Term Projects and Future Projects. The 2022 WMP estimates that drain flows into the Salton Sea from the Coachella Valley and Indio Subbasin will increase in the future with the implementation of these Management Actions. **Table 3.4-1** summarizes some of the projects currently being implemented.

**TABLE 3.4-1
INDIO SUBBASIN GROUNDWATER MANAGEMENT PLAN UPDATE
PROJECTS BEING IMPLEMENTED IN THE NEAR TERM**

Project	Description	-Pumping/ +Replenishment	Status
Oasis in Lieu Project (PMA #13)	Project will expand the Canal water delivery system to the Oasis Area to substitute groundwater production.	-32,000	Project has been substantially completed and agricultural customers are being connected to the irrigation system.
Palm Desert Groundwater Replenishment Facility Phase 2 (PMA #20)	Project will expand direct replenishment of the groundwater at the existing Palm Desert Groundwater Replenishment Facility	+15,000	All permits received and design completed. Request for construction bids to be published in January 2025
East Golf Non Potable Water Expansion (PMA #12)	Project will connect additional golf customers in the East Valley to the Coachella Canal to substitute groundwater production. Two additional connections planned between FY 2027 and FY 2028.	-2,044	Design anticipated to begin in 2026.

Source: 2022 WMP

Revised Order WRO 2002-0013, WRO 2002-0016, WRO 2017-134

In 2017 the SWRCB issued Water Rights Order (WRO) 2017-134 which amended the previous WRO 2002-013 and WRO 2002-0016, clarifying the state's responsibility and commitment to managing the changing conditions at the Salton Sea in the interests of mitigating impacts to the natural environment and to public health resulting from the lowering elevation of the Sea. The WRO was enacted to comply with the Salton Sea Restoration Act, California Fish & Game Code section 2942 which provides that the Secretary of California Natural Resources Agency (CNRA) shall lead the state's efforts to restore the Salton Sea. The WRO states the following:

“The Board finds and declares that restoration of a smaller but sustainable Salton Sea is feasible, that the State of California will lead and coordinate management efforts, and that implementation of projects to protect or improve air and water quality and wildlife habitat will be completed forthwith to avoid severe consequences to the State of California as a whole, to the health of Imperial and Coachella Valley residents, and to multiple wildlife habitats that exist at the Salton Sea and serve the Pacific Flyway.”

Further, the WRO notes that the State of California leadership role in the restoration and dust suppression projects is appropriate:

“The Board further finds and declares that successful management of a smaller but sustainable Salton Sea will require the active participation and support of the federal government, affected local and regional governing bodies, affected tribal governments, environmental and philanthropic organizations, and the State of California. While the importance, cost and scale of this endeavor will exceed what can be expected from any single entity, the State has acknowledged that its role as a catalyst is essential in advancing the cause of restoration.”

Further, while the Quantification Settlement Agreement (QSA) EIS/EIR mitigation measures, as carried out by the QSA Joint Powers Authority at the Salton Sea to mitigate impacts of the water transfers are identified as being unaffected, the WRO mandates the State's responsibility for construction of 4,200 acres of habitat and dust-suppression projects on exposed playa by 2028, among additional activities and targets carried forth in the Salton Sea Management Program (SSMP).

Coachella Valley Multi-Species Habitat Conservation Plan

Per CFGC Sections 2800–2840, the Natural Community Conservation Plan Act (the Act), authorized the preparation of NCCPs to protect natural communities and species while allowing a reasonable amount of economic development. The project is located in an area that is covered by the Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP), which was finalized in 2008 and amended by USFWS in 2015 and CDFW in 2016. The CVMSHCP is managed by the Coachella Valley Conservation Commission (CVCC) and participants include Riverside County, the Cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, Rancho Mirage, as well as Coachella Valley Water District, Imperial Irrigation District, Mission Springs Water District, Coachella Valley Association of Governments, and Caltrans (CVAG 2007). The CVMSHCP is a long-term program designed to conserve federally protected species, state protected species, and/or other species of concern. The CVMSHCP program aims to conserve over 240,000 acres of open space and protect 27 plant and animal species by providing comprehensive compliance with federal and state endangered species laws. The CVMSHCP includes most of the Coachella Valley floor portion of Riverside County (CVAG 2007).

The Biological Study Area (BSA) and the northern portion of the project area lie within the boundary of the CVMSHCP, which provides the framework and guidelines to protect and maintain biological resources both within and outside of Conservation Areas designated within the plan area. The southern portion of the BSA, south of Avenue 66 (including a portion of the CVSC and shoreline of the Salton Sea) falls within the Coachella Valley Stormwater Channel and Delta Conservation Area (CVAG 2007). CVWD is a permittee to and is provided Take coverage under the CVMSHCP as authorized by CDFW and USFWS.

Obligations of the Participants

As a permittee, CVWD is required to participate in the establishment of the MSHCP Reserve system conducted by the CVCC through the Rough Step and Rough Proportionality Analyses process and fulfill other specific obligations within and outside of Conservation Areas, as outlined in Section 6.6, Obligations of the Participants. Obligations within Conservation Areas include but are not limited to, participation in the Joint Project Review (JPR) and Property Owner Initiated Habitat Evaluation and Acquisition Negotiation Strategy (HANS) processes and the implementation of Land Use Adjacency Guidelines as set forth in Section 4.5. Obligations within and outside of Conservation Areas include but are not limited to, ensuring that habitat preservation occurs in rough proportionality with Development and that the Reserve Assembly occurs as dictated in the CVMSHCP.

CVWD owns approximately 7,000 acres in Conservation Areas within the CVMSHCP and is required to cooperate with the CVCC as follows:

- Approximately 1,200 acres within the Whitewater Floodplain Conservation Area will be committed to conservation under the MSHCP.
- Lands with Take Authorization for Covered O&M of facilities will conserve only to the extent compatible with the O&M of the facilities.
- Proposed (covered) facilities proposed at inception of CVMSHCP (Dike 4 and Martinez recharge basins and future water-related facilities) that require a Minor Plan Amendment with criteria will be mitigated by commitment of CVWD lands within Essential Peninsular bighorn sheep Habitat conservation at a 1:1 ratio of Conservation to Development.
- For future projects outside of Conservation Areas, CVWD may commit an equivalent dollar value of its lands in the Conservation Areas to permanent conservation in lieu of paying the Local Development Mitigation Fee.
- If before Year 50 of Plan implementation, CVWD still owns land in the Conservation Areas that has not been conserved by any of the foregoing methods, CVWD shall cooperate with CVCC in the conservation of these lands.
- Conservation will be accomplished through conveyance of fee title to CVCC, recordation of a conservation easement, or entering into a memorandum of understanding (MOU) with the CVCC.

At the inception of the CVMSHCP, the CVWD was required to either contribute \$3,583,400 as a lump sum or paid in installments over a maximum of 5 years, toward the Endowment Fund for the Monitoring Program, the Management Program, and Adaptive Management developed to manage conserved land within the Conservation Areas. Additional contributions outlined in Section 6.6 include:

- Establish 66 acres of permanent habitat for California black rail and Yuma clapper rail in the Coachella Valley Stormwater Channel and Delta Conservation Area.
- CVWD will establish permanent riparian habitat including at least 44 acres of Sonoran cottonwood-willow riparian forest in the Coachella Valley Stormwater Channel and Delta Conservation Area to replace habitat that is periodically altered by flood control maintenance activities.
- CVWD will establish at least 25 acres of managed replacement habitat on a 1:1 ratio for desert pupfish, using low selenium water, at a site or sites to be determined with concurrence from the Wildlife Agencies. It is estimated that approximately 325 acre-ft/yr of water would be required to maintain 25 acres of replacement habitat, replacing evaporation and maintaining appropriate flow-through rate. Ongoing maintenance and adjustments will be required, including vegetation control and dike and bank maintenance, to achieve desired habitat characteristics. This habitat will replace the 25 acres of habitat that is periodically altered by maintenance activities in drains and flood control channels that contain pupfish habitat.
- As described in Section 4.3.15, CVWD will enhance and manage Coachella Valley round-tailed ground squirrel habitat on land it owns in the East Indio Hills Conservation Area to offset impacts to this species from CVWD's O&M activities in the Coachella Valley Stormwater Channel and Delta Conservation Area.

CVWD has prepared a draft of the Garfield Street and Johnson Street Constructed Habitat Projects Work Plan that is currently under review, that will address the 66 acres of California black rail and Yuma clapper rail habitat, 44 acres of Sonoran cottonwood-willow riparian forest, and 25 acres of desert pupfish habitat outlined above.

Covered Activities

Section 7.0, Take Authorization for Covered Activities and Term of Permit, organizes covered activities based on whether they are expected to fall within or outside of established conservation areas. Covered activities outside of conservation areas include the following:

- Development permitted or approved by Local Permittees.
- Public facility construction, operations (not including groundwater withdrawal), and maintenance and safety activities by the permittees for existing and future facilities, including both on and off-site activities.
- Emergency response activities by Permittees required to protect the public health, safety, and welfare (CVAG 2007).

The proposed project meets criteria for the construction, operation and maintenance of a water development, production, storage, treatment and transmission facility.

Covered activities within conservation areas include the following:

- Construction and maintenance of trails, public access facilities, and campground facilities, except on federal land, as provided for this Plan consistent with the Species Conservation Goals and the Conservation Objectives for the Conservation Areas, and consistent with the guidelines for trails and public access in Section 7.3.4.2.
- Specific projects and operation and maintenance activities listed in Tables 7-1 through 7-13.
- Development permitted or approved by Local Permittees.
- Expansion of mining operations on non-federal land (CVAG 2007).

Land Use Adjacency Guidelines

Section 4.5, Land Use Adjacency Guidelines, were developed to avoid or minimize indirect effects from Development adjacent to or within the Conservation Areas. Adjacent means sharing a common boundary with any parcel in a Conservation Area. Such indirect effects are commonly referred to as edge effects, and may include noise, lighting, drainage, intrusion of people, and the introduction of non-native plants and non-native predators such as dogs and cats. Edge effects will also be addressed through reserve management activities such as fencing. The following Land Use Adjacency Guidelines shall be considered by the Permittees in their review of individual public and private Development projects adjacent to or within the Conservation Areas to minimize edge effects and shall be implemented where applicable. Topics outlined in the guidelines include Drainage, Toxics, Lighting, Noise, Invasives, Barriers and Grading/Land Development.

Joint Project Review

A JPR is instituted by the CVCC and is required to ensure compliance with requirements included in the CVMSHCP, when a project is situated within a Conservation Area. O&M of Covered Activities is not subject to a JPR; however, all other Covered Activities with potential to affect Covered Species or Habitat are.

CVCC staff shall participate in the JPR to ensure consistent CVMSHCP implementation and oversight. CVCC shall have neither jurisdiction over land use decisions by Permittees nor the authority to prevent a Permittee from approving a project. The application will not be deemed complete by the Permittee prior to completion of the Joint Project Review Process. The review process is described in detail in Section 6.6.1.1, Joint Project Review Process within the Conservation Areas, of the CVMSHCP. The proposed project does not meet the definition of a development Project taking place within the Delta Conservation Area. CVWD has no quantifiable obligation to flows in the CVSC under the CVMSHCP, as CVSC flows are dependent on ancillary wastewater and agricultural return flows, and CVWD's commitments under the CVMSCHP authorize regular maintenance disturbance to these habitats, any indirect impacts from flow reduction to the CVSC within a conservation area are not expected to result in a significant effect on Covered Species or Habitat; therefore, the project is not subject to a JPR.

Quantification Settlement Agreement

The Coachella Valley receives Colorado River water via the Coachella Canal branch of the All American Canal. In 2003, CVWD signed the QSA that assigned Colorado River water diversion rights to the San Diego County Water Authority (SDCWA), CVWD, Imperial Irrigation District (IID), and the Metropolitan Water District of Southern California (MWD). The QSA established a base entitlement of Colorado River water to the CVWD at 330,000 acre-feet per year (AFY). CVWD negotiated water transfer agreements with MWD and IID that increased CVWD supplies by an additional 123,000 AFY. CVWD's net QSA supply will increase to 424,000 AFY by 2026 and remain at that level until 2047, decreasing to 421,000 AFY until 2077, when the agreement terminates.

In 2002, as the federal lead agency under the National Environmental Policy Act (NEPA), Reclamation certified a Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) evaluating the QSA Water Conservation and Transfer Project and Habitat Conservation Plan (2002 EIR/EIS). IID was the state lead agency in compliance with the California Environmental Quality Act, California Public Resources Code Sections 21000, et seq. (CEQA). The 2002 EIR/EIS evaluated, among other things, the conservation and transfer of up to 300,000 AFY of Colorado River water to the SDCWA for a designated period of up to 75 years. IID adopted an Addendum to the 2002 EIR/EIS in 2003 that, among other things, modified certain mitigation measures referred to as "the Salton Sea Habitat Conservation Strategies," including the temporary use of mitigation water, modifications to the terms of the water transfer, and modifications to the Endangered Species Act consultation strategies, allowing the water transfers to occur through a Section 7 consultation rather than with a Section 10 process, which would result in a Habitat Conservation Plan. The 2002 EIR/EIS and the 2003 Addendum are hereafter collectively referred to as the "QSA EIR/EIS (BOR 2024).

The QSA EIR/EIS evaluated impacts of the flow allocations that recognized reduced inflow to the Salton Sea would result in lowered elevations of the Sea, increased salinity in the Sea, and the increased acreage of exposed lakebed. These impacts are currently being observed along the receding Salton Sea shoreline.

To mitigate impacts to biological resources, air quality, and public health, the QSA EIR/EIS established a mitigation program that was upheld in WRO 2017-134. WRO 2017-134 also outlined additional responsibilities of the California Natural Resources Agency carried into the SSMP in 2017. The QSA EIS EIR requires a specific Mitigation Monitoring and Reporting Plan addressing a range of ecological conditions at the Salton Sea, including IID's Salton Sea Air Quality Mitigation Program (SS AQMP).

The Quantification Settlement Agreement Joint Powers Authority (QSA JPA) was formed under 2003 legislation to administer funding of environmental mitigation requirements related to the QSA water transfers. Specifically, the QSA JPA collects, holds, invests, and reimburses environmental mitigation costs incurred by implementing member agencies to address the distinct impacts related to the transfers. The QSA JPA is comprised of designated representatives from CDFW, IID, SDCWA, and CVWD who serve as Commissioners and staff. Under QSA-related legislation (specifically SB 654), the three water agencies, IID, SDCWA, and CVWD, have a responsibility to fund environmental mitigation related to the QSA up to \$133 million in 2003 dollars. Additionally, the three water agencies have paid \$30 million in 2003 dollars as seed money for the state's restoration program. The \$30 million was provided to CDFW as part of the Salton Sea Restoration Fund. That funding together with the \$133 million cap the three water agencies' financial obligations and liabilities for environmental mitigation and restoration as part of the QSA. The state has a responsibility under the QSA-related legislation to fund mitigation costs that exceed \$133 million and a responsibility to address the larger issue of restoration at the Salton Sea (<https://qsajpa.org>).

The QSA EIR/EIS identified 11 impacts to biological resources along the Salton Sea. Some of these impacts were identified as less than significant or as having no impact to biological resources. These include effects to adjacent wetland vegetation resulting from reduced rain flow and Salton Sea elevation, increased salinity and selenium concentrations, a reduction in invertebrate resources for shorebirds, effects to colonial nest/roost sites, a reduction in available mudflat and shallow water habitat, and an increase in avian disease outbreaks. QSA impacts requiring mitigation included effects to piscivorous birds due to reduced fish abundance and the isolation of desert pupfish populations from increased salinity (BOR 2024).

Salton Sea Management Plan Mitigation Projects

The SSMP was initiated by the CNRA in collaboration with the DWR and CDFW to develop and implement restoration and dust suppression projects at the Salton Sea. The SSMP Team is currently implementing its Phase 1: 10-Year Plan. The 10-year Plan aims to establish at least 14,900 acres of aquatic habitat and up to 14,900 acres of dust suppression projects by the year 2028. There are several projects in progress and future projects under consideration at the Sea as part of the Phase 1: 10-Year Program, including the Species Conservation Habitat (SCH) Project, SCH Expansion Project, SCH Vegetation Project, Kane Springs, San Felipe Fan, Tule Wash, Clubhouse, Desert Shores Channel Restoration Project, North Lake Project, North Lake Pilot Demonstration Project, West Bombay Beach, Audubon Bombay Beach Wetland Restoration Project, and the Wister Unit Marsh Bird Habitat Restoration Project (DWR and CDFW 2024).

The SCH Project nearing completion will restore approximately 4,100 acres of shallow water habitat for fish and birds while also suppressing dust emissions. Three additional projects have been prioritized by the SSMP team for dust suppression and vegetation enhancement including Clubhouse, Tule Wash, and

West Bombay Beach. The SCH Expansion Project plans to create aquatic habitat adjacent to the SCH and would require construction of additional berms using the existing water conveyance, pumping facilities, and diversion infrastructure constructed for the SCH Project. The Audubon Bombay Beach Wetland Enhancement Project is a coordinated effort between the SSMP Team and Audubon California that plans to preserve and enhance an existing wetland of over 564 acres adjacent to Bombay Beach. Audubon is continuing to lead the design effort as the SSMP team assists with the Phase 1: 10-Year Plan EA, design, public access, and securing land access.

The SSMP includes two projects located along the northern shore of the Sea: the North Lake Pilot Demonstration Project and the North Lake Project. Each of these projects is planned to create shallow and deep-water habitat to restore and manage habitat, control dust, and provide recreational opportunities. Three or more interconnecting ponds would be constructed on both sides of the mouth of the CVSC at the north end of the Sea. The project would construct a berm across the ponds to pass flows from the CVSC to the Sea. Three sources of water may be available to sustain these ponds: (1) the Whitewater River/CVSC; (2) local agricultural drains; and (3) the Sea. The estimated inflow required for the North Lake would be about 50,000 AFY, of which 20 percent, or 10,000 AFY, would need to be from saline water pumped from the Sea, and the remaining 40,000 AFY would need to be supplied by local surface water flows. Ponds would be created by constructing berms 10 to 15 feet high along the -245 to -250 feet elevation contours, with the water surface in the ponds planned at -237 feet below sea level.

Long-Range Plan

In response to the QSA, the SWRCB issued the WROs (WRO 2002-0013, updated in WRO 2017-134) that required CNRA to prepare a long-term plan consistent with the Salton Sea Restoration Act and Fish and Game Code Section 2931, subdivision (c). The goal of the Long-Range Plan is to protect or improve air quality, water quality, and wildlife habitat to reduce health and environmental consequences anticipated from the long-term recession of the Salton Sea.

The Long-Range Plan analyzed the sustainable baseline conditions based on the anticipated reliable inflows into the Salton Sea, and then evaluated the technical aspects of various restoration concepts and scenarios. The methods of analysis included the projected hydrology (i.e., what is the reliably expected volume of future inflow), projected salinity and elevation, an evaluation of habitat and air quality, and a greenhouse gas analysis. Relative to this proposed project, the modeling conducted for the Salton Sea Long-Range Plan included the actions described in the Indio Subbasin Water Management Plan Update (2022 WMP). The planned actions specifically include treating and recycling effluent from WRP 4 for agricultural irrigation and other irrigation uses rather than continuing to discharge to the CVSC.

The Long-Range Plan is separated into two Phases; Phase 1 will include various restoration and/or habitat preservation projects restore/preserve migratory bird or other wildlife habitat. Phase 2 of the Salton Sea Long-Range Plan includes a total of 13 concepts that provide options including preventing/controlling the recession of the sea through the importation and/or pumping of water or the modification of its current condition by creating shallow, wetland cells and dust suppression projects, dividing the waterbody into a lake and marine sea, among others. These Long-Range Plan projects have been identified to mitigate anticipated impacts of projected flow reductions into the Salton Sea. The status of their implementation can be found online at: https://saltonsea.ca.gov/wp-content/uploads/2024/03/2024-Annual-Report_Mar-25.pdf.

3.4.2 Environmental Setting

The environmental setting includes the WRP 4 site, proposed pipeline routes, the CVSC, as well as the Salton Sea and its perimeter shoreline. This area is shown in **Figure 3.4-1**. The BSA described in the BRTR is shown in **Figure 3.4-2**. The BSA and the Salton Sea and existing shoreline are collectively referred to as the project area (Figure 3.4-1).

Existing Literature and Database Review

The analysis in this Section references previous environmental documentation and publications related to biological and aquatic resources previously documented in the region and conducted queries of available resource inventory databases to analyze the potential for sensitive resources to occur within or immediately adjacent to the project area. The literature and database review included but was not limited to the following sources:

- CVMSHCP and Final major amendment (CVAG 2007).
- CVWD Sanitation Master Plan Update 2020. Biological Resources Technical Report (ECORP 2020).
- USACE SSMP Phase 1: Ten-Year Plan Imperial and Riverside Counties Draft Environmental Assessment (USACE 2022).
- CDFW CNDDDB. The database was queried for special-status species records in the Indio USGS 7.5-minute quadrangle and nine surrounding quadrangles (CDFW 2023a).
- California Sensitive Natural Communities (CDFW 2023b).
- BIOS Habitat Connectivity Viewer (CDFW 2023c).
- Inventory of Rare and Endangered Vascular Plants of California. The database was queried for special-status species records in the Indio USGS 7.5-minute quadrangle and eight surrounding quadrangles (CNPS 2023).
- Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2023).
- USFWS Critical Habitat Portal (USFWS 2023a).
- Information for Planning and Consultation (IPaC) ([USFWS 2023b](#)).
- National Wetlands Inventory (USFWS 2023c).

Biological Resources Survey

A general biological resources survey was conducted and vegetation was mapped within the BSA. The survey was conducted on August 14, 15 and 16, 2023. Native and non-native natural communities and land cover types were mapped on aerial maps using Geographic Information System software (i.e., ArcGIS). Most descriptions of vegetation were characterized in the field in accordance with *A Manual of California Vegetation* (MCV) (Sawyer et al. 2009). In instances where a description listed in the MCV was not appropriate, the community was instead characterized using species dominance or other notable descriptor.

Natural Communities and Land Cover Types

Biological Study Area

The 3,332.17-acre BSA includes the 316.39-acre project site and 2,991.589 acres of surrounding survey buffer. A total of 16 natural communities and land cover types were mapped within the BSA encompassing the CVSC and the point at which it terminates at the shoreline of the Salton Sea (**Figure 3.4-3** and **Table 3.4-2**). Vegetation within the portion of the BSA surrounding paved and unpaved roadways consists of agriculture and various fragmented swaths of desert scrub, including arrow weed, allscale and tamarisk. Vegetation along the CVSC consists primarily of dense native and non-native riparian forest and scrub, and freshwater wetland along the low-flow channel, surrounded with successional scrub cover dominated by arrow weed, allscale, and tamarisk, among others due to flood control practices. Precipitation generated by Hurricane Hilary² in August of 2023 caused flows and scour within the CVSC and resulted in modification/removal of some of the vegetation within the channel; this occurred after completion of the biological resources assessment and is not reflected in this document.

TABLE 3.4-2
NATURAL COMMUNITIES AND LAND COVER TYPES

Vegetation Communities	Project Components (Acres)		Survey Buffer (Acres)	Total Biological Study Area (Acres)
	Permanent Impacts	Temporary Impacts		
Natural Communities				
Agriculture	0.00	0.00	1,619.63	1,619.63
Allscale Scrub	0.00	0.00	17.65	17.65
Arrow Weed Thickets	0.00	0.00	36.41	36.41
Barren	56.50	0.00	89.50	146.00
Bush Seepweed Scrub	0.00	0.00	0.39	0.39
Cattail Marsh	0.00	0.00	1.62	1.62
Common Reed Marsh	0.00	0.00	1.46	1.46
Iodine Bush Scrub	0.00	0.00	42.94	42.94
Salt Grass Flats	0.00	0.00	7.56	7.56
Sonoran Cottonwood-Willow Riparian Forest	0.00	0.00	98.07	98.07
Tamarisk Thickets	0.00	0.00	160.24	160.24
Mudflats	0.00	0.00	0.29	0.29
Open Water	0.00	0.00	19.09	19.09
Disturbed	0.00	62.71	494.91	557.62
Developed	0.00	99.42	401.81	501.23
Unvegetated Channel	0.00	0.00	0.32	0.32
TOTAL	56.50	162.1	2,991.89	3,332.17

Notes:

1. Acreages may not sum due to rounding.

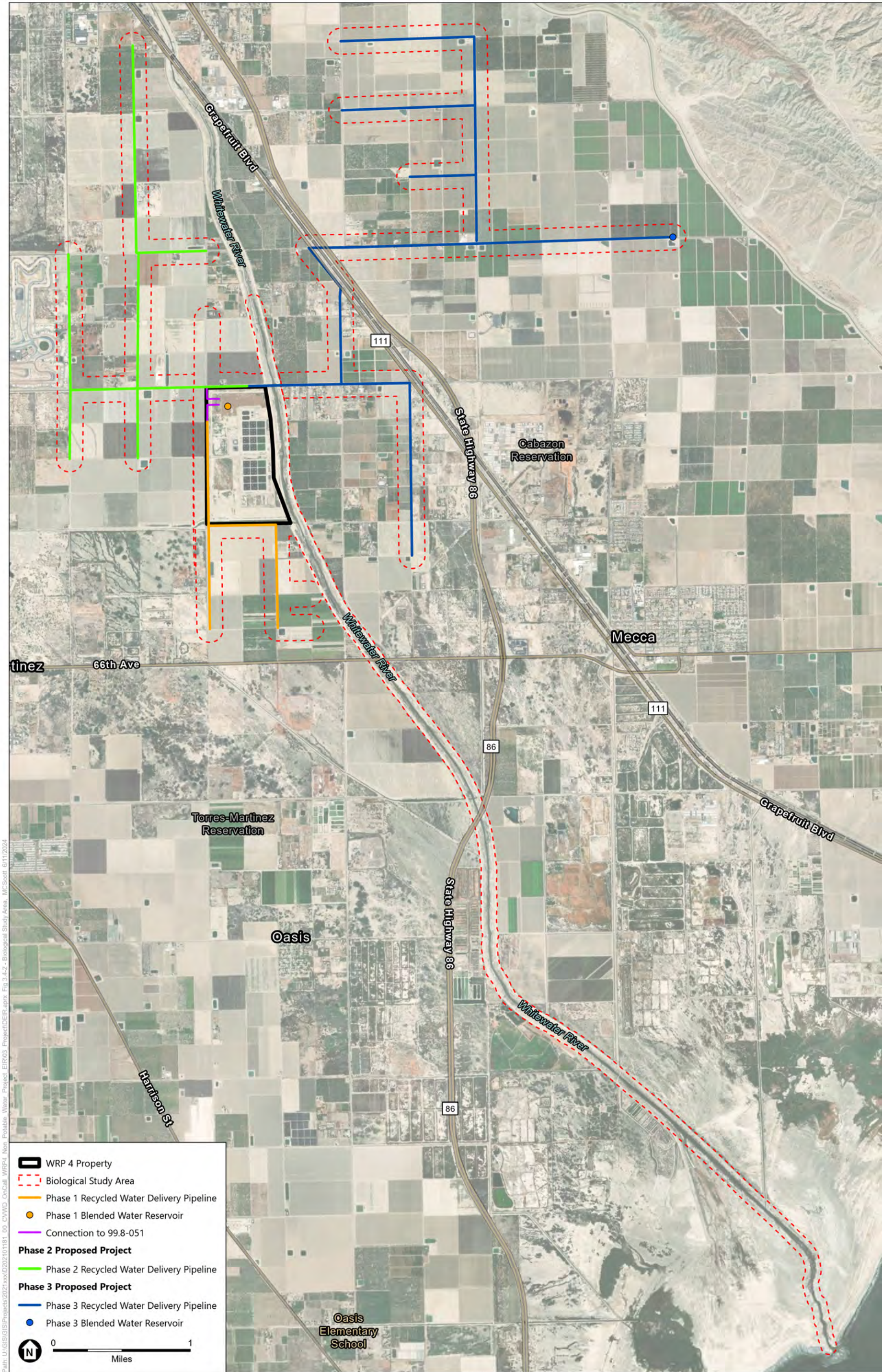
² <https://www.climate.gov/news-features/event-tracker/former-hurricane-hilary-brought-southern-california-its-first-ever>.



SOURCE: ESA, 2023

WRP 4 Project

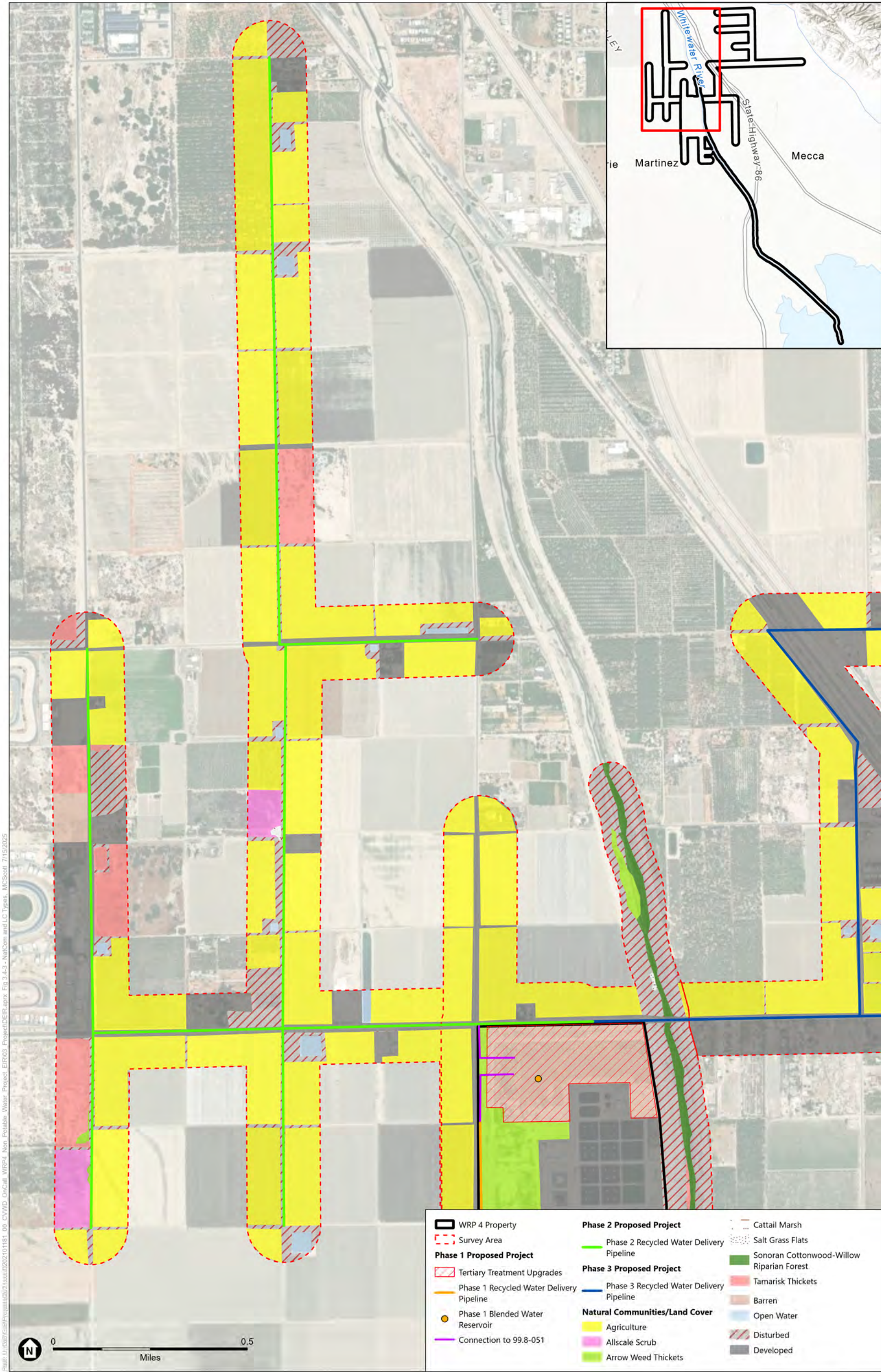
Figure 3.4-1
Project Area



SOURCE: ESA, 2023

WRP 4 Project

Figure 3.4-2
Biological Study Area

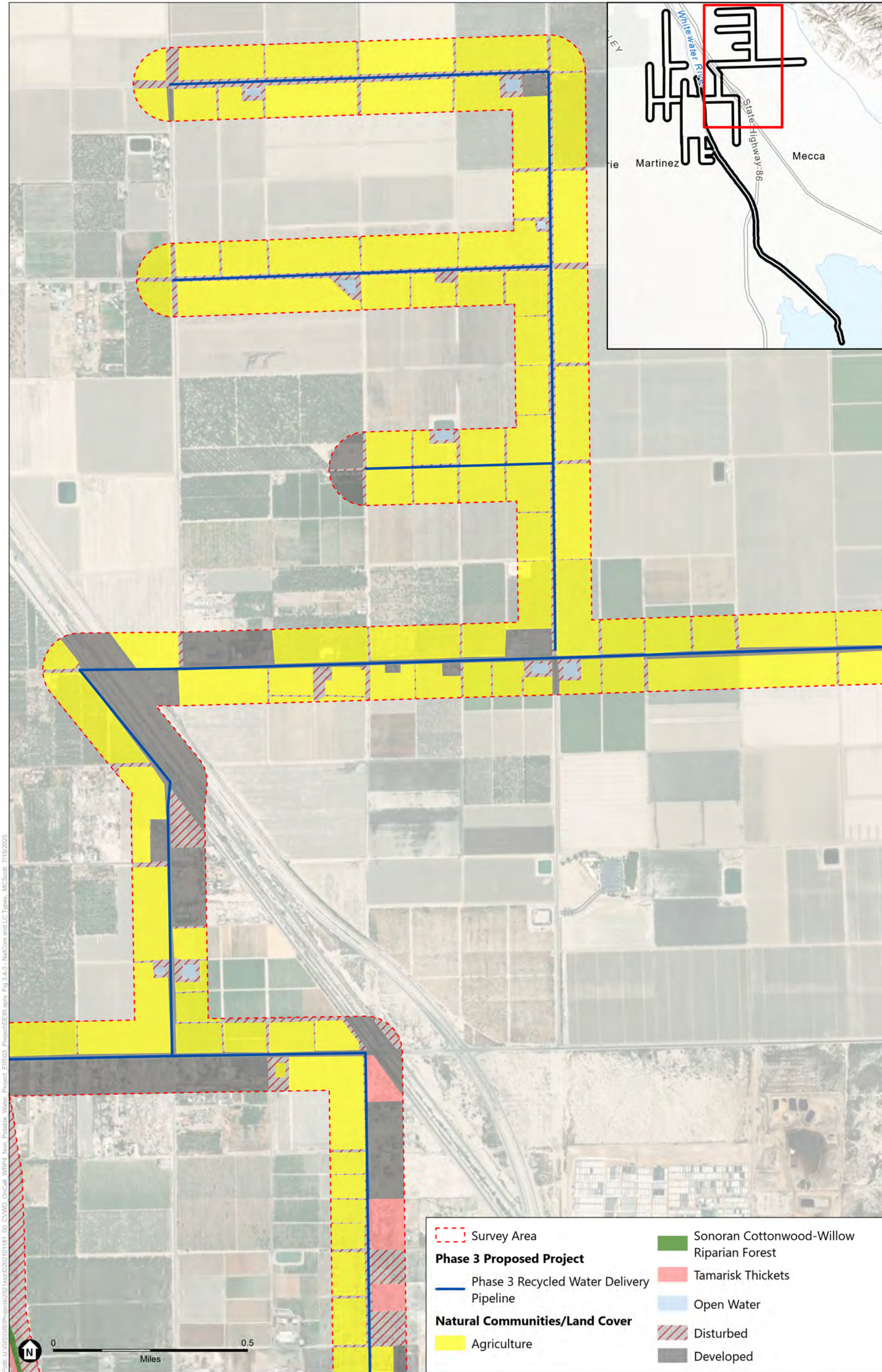


SOURCE: ESA, 2023

WRP 4 Project

Figure 3-4.3A
Natural Communities and Land Cover Types

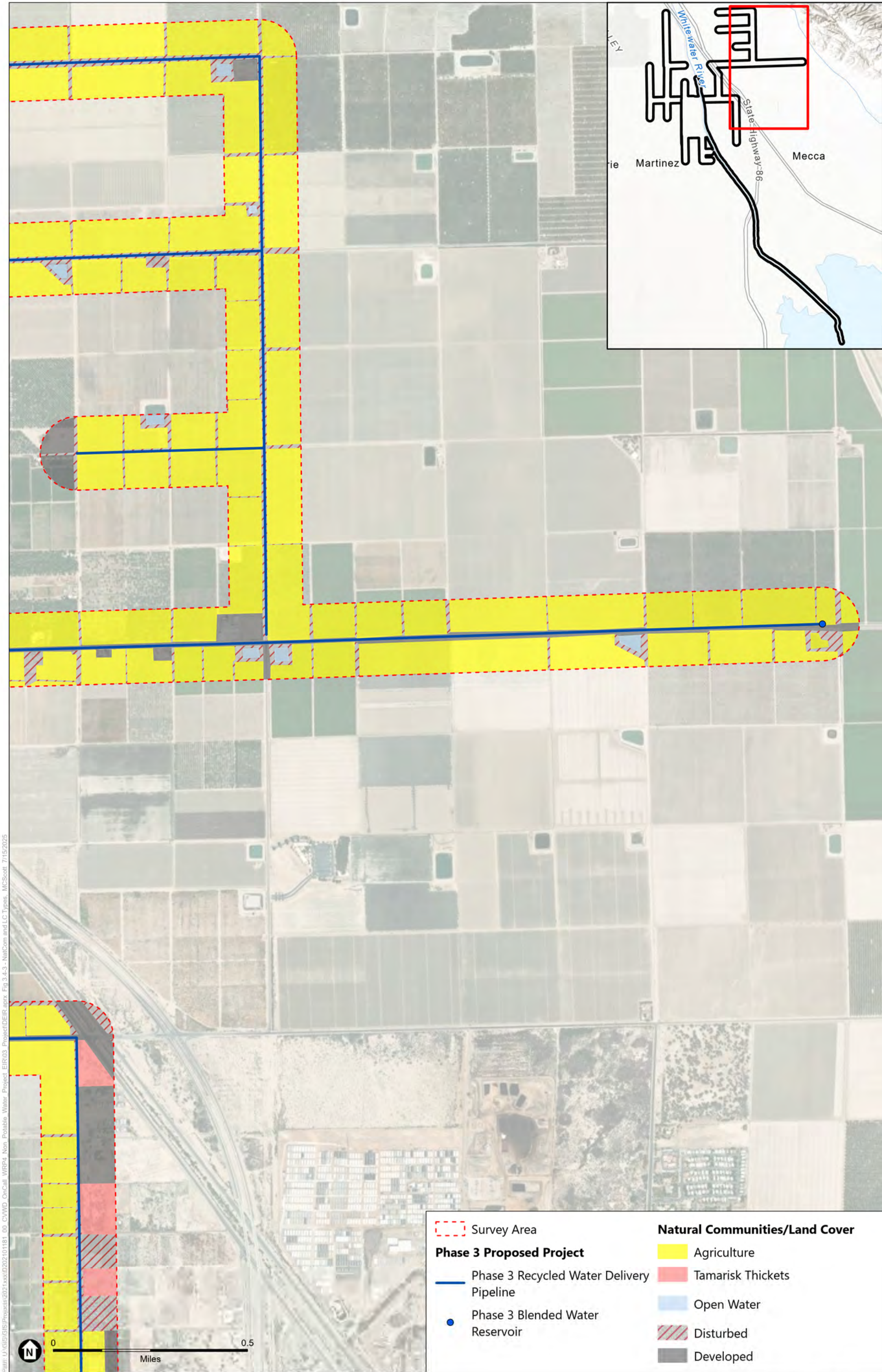




SOURCE: ESA, 2023

WRP 4 Project

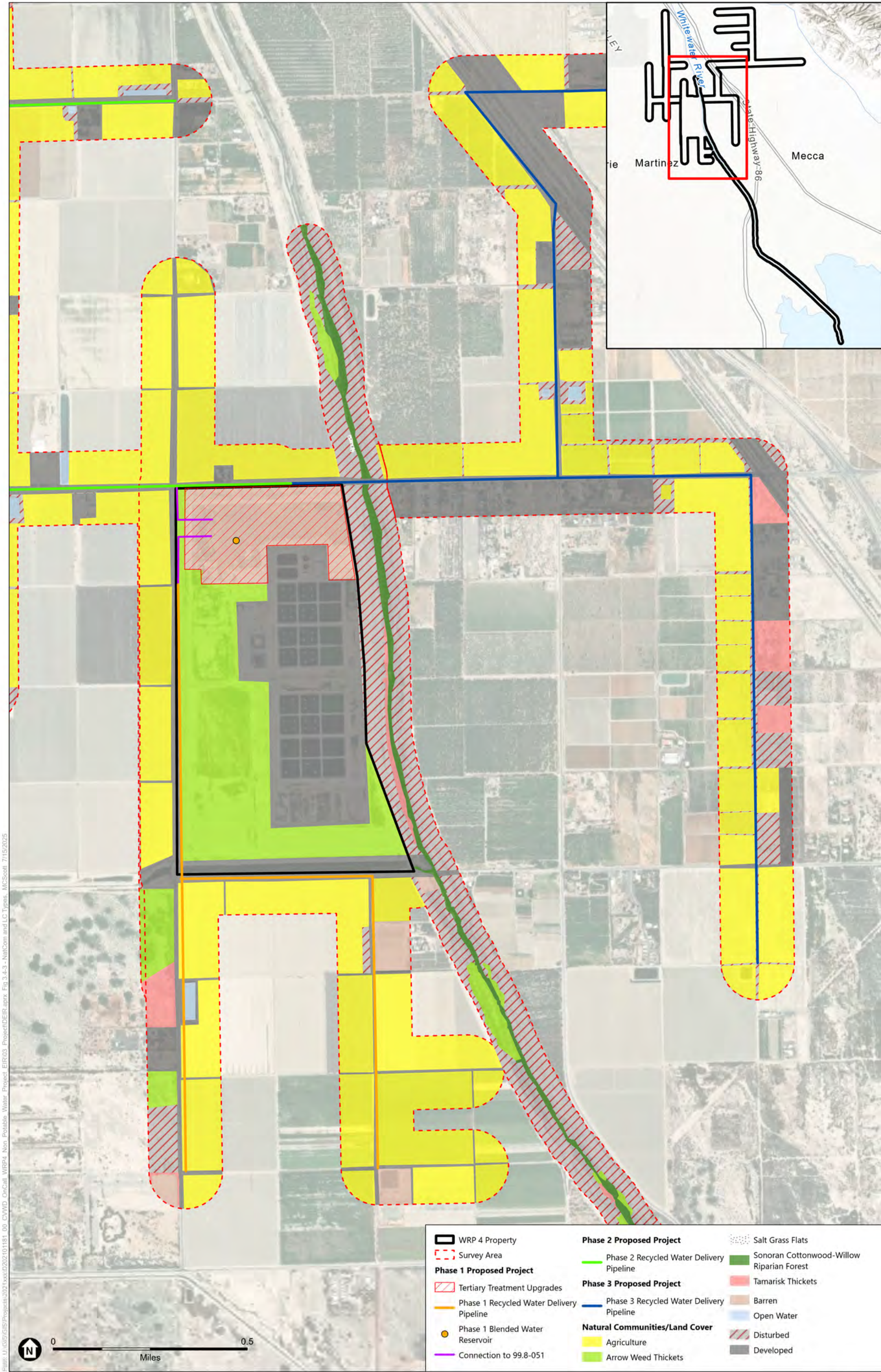
Figure 3-4.3B
Natural Communities and Land Cover Types



SOURCE: ESA, 2023

WRP 4 Project

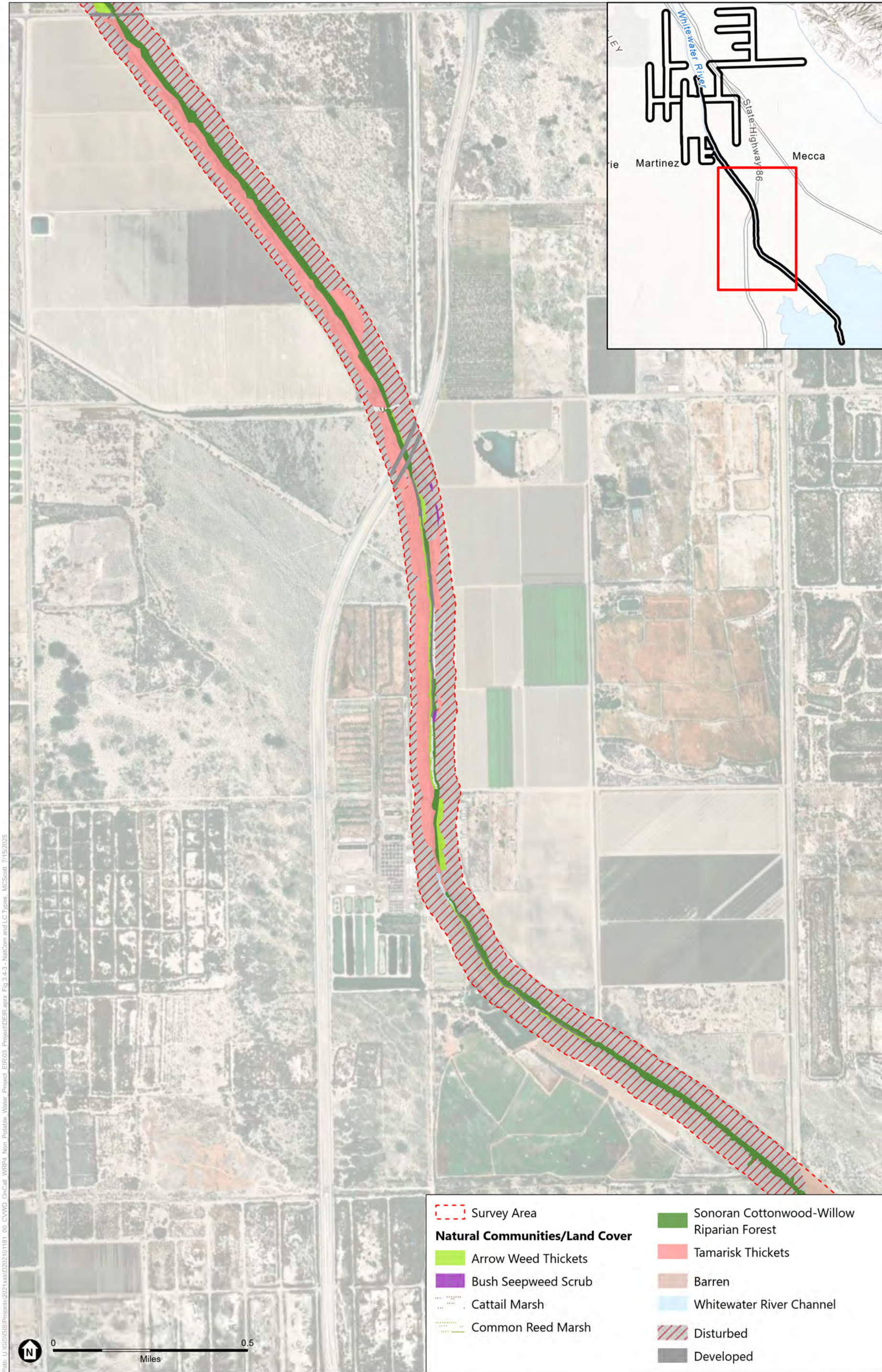
Figure 3-4.3C
Natural Communities and Land Cover Types



SOURCE: ESA, 2023

WRP 4 Project

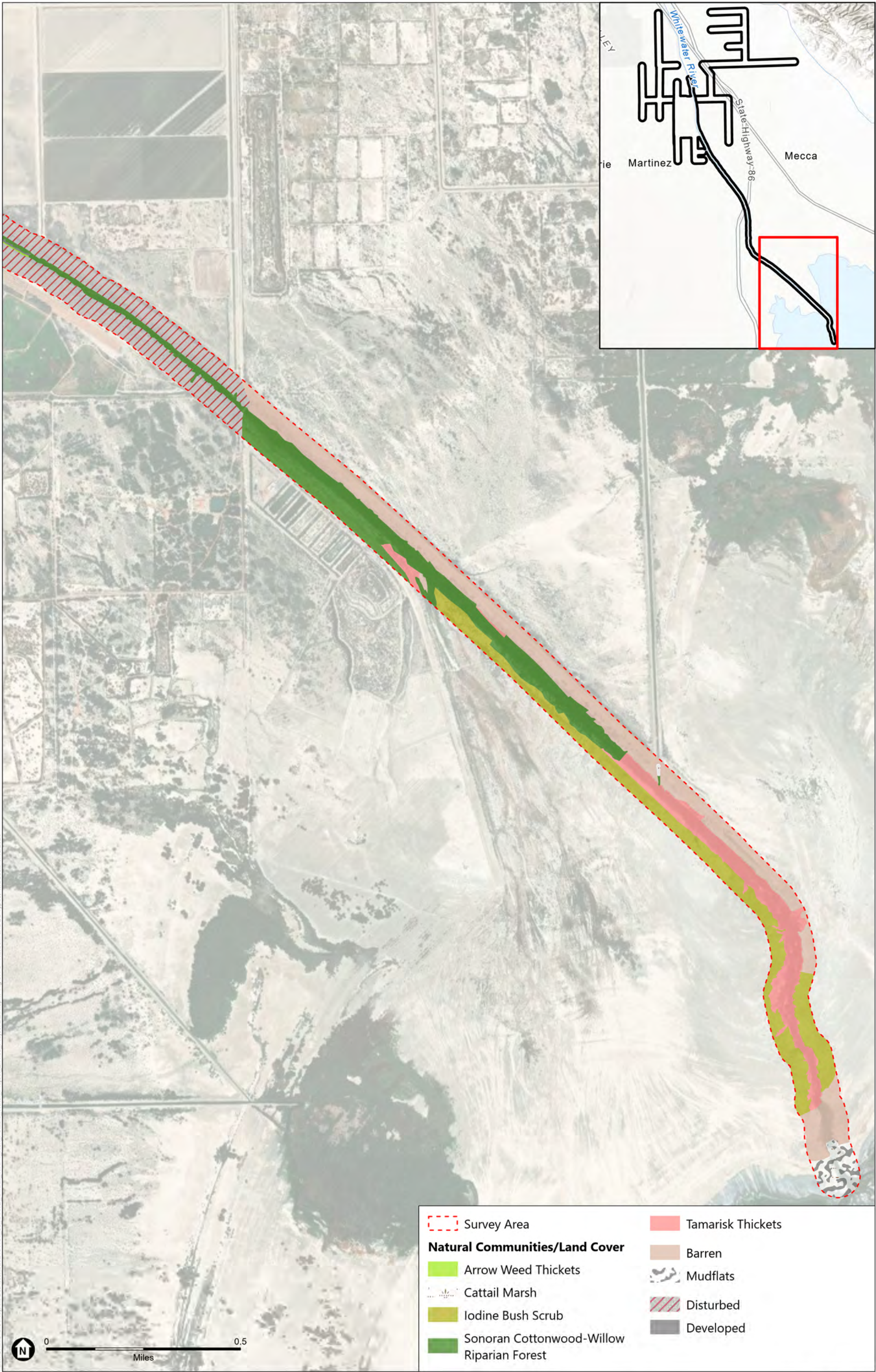
Figure 3-4.3D
Natural Communities and Land Cover Types



SOURCE: ESA, 2023

WRP 4 Project

Figure 3-4.3E
Natural Communities and Land Cover Types



SOURCE: ESA, 2023

WRP 4 Project

Figure 3-4.3F
Natural Communities and Land Cover Types



Agriculture

Agriculture mapped within the BSA supports commercial crop production and includes grape vineyards, citrus and date palm orchards, and lettuce, broccoli and cauliflower fields. Agriculture was mapped throughout the BSA and is the dominant land cover type.

Allscale Scrub

Allscale scrub is characterized by a dominance of allscale (*Atriplex polycarpa*) in the shrub layer, interspersed with arrow weed (*Pluchea sericea*) and iodine bush (*Allenrolfea occidentalis*). This community primarily occurs along the manufactured banks of the CVSC; however, this community was also observed elsewhere within the BSA, including along Polk Street. Allscale scrub is a form of desert saltbush scrub and is covered under the CVMSHCP.

Arrow Weed Thickets

Arrow weed thickets are characterized by a dominance of arrow weed in the shrub canopy, interspersed with allscale and iodine bush. This community is most abundant along the pilot channel and constructed banks of the CVSC; however, it was also observed outside of the project area within the BSA, including along Polk Street and within the limits of the WRP 4 facility. Arrow Weed thickets are also referred to as arrowweed scrub and are covered under the CVMSHCP.

Bush Seepweed Scrub

Bush seepweed scrub is characterized by a dominance of bush seepweed (*Suaeda nigra*) in the herbaceous layer, interspersed with arrow weed and iodine bush in the surrounding shrub layer. This community was mapped along the pilot channel of the CVSC within the BSA. Bush seepweed scrub is a form of desert sink scrub and is covered under the CVMSHCP.

Cattail Marsh

Cattail marsh is characterized by a dominance of cattail (*Typha domingensis*), interspersed with common reed (*Phragmites australis*) and willow weed (*Persicaria lapathifolia*). This community was mapped along the pilot channel and constructed banks of the CVSC within the BSA. Cattail marsh is a form of freshwater marsh and is covered under the CVMSHCP.

Common Reed Marsh

Common reed is characterized by a dominance of common reed (*Phragmites australis*), interspersed with cattail and willow weed. This community was mapped along pilot channel of the CVSC within the BSA.

Iodine Bush Scrub

Iodine bush scrub is characterized by a dominance of iodine bush in the shrub layer, interspersed with arrow weed and allscale. This community primarily occurs along the pilot channel and constructed banks of the CVSC; however, it was also observed elsewhere within the BSA, including along Polk Street. Iodine bush scrub is a form of desert sink scrub and is a covered natural community under the CVMSHCP.

Salt Grass Flats

Salt grass flats are characterized by a dominance of saltgrass (*Distichlis spicata*), interspersed with various emergent shrub species, including iodine bush and allscale. This community was mapped along the pilot channel of the CVSC and elsewhere within the BSA.

Sonoran Cottonwood-Willow Riparian Forest

Sonoran cottonwood-willow forest is characterized by a co-dominance between Fremont cottonwood (*Populus fremontii*), Goodding's willow (*Salix gooddingii*) and red willow (*S. laevigata*) in the tree canopy, interspersed with various other tree and shrub species including arrow weed, iodine bush and tamarisk (*Tamarix* spp.). This community was mapped along the pilot channel and manufactured banks of the CVSC, within the BSA. Sonoran cottonwood-willow riparian forest is covered under the CVMSHCP.

Tamarisk Thickets

Tamarisk thickets are characterized by a dominance of tamarisk in the tree/shrub canopy, interspersed with various native tree and shrub species including arrow weed, iodine bush, Goodding's willow, and red willow. This community was mapped adjacent to various paved and unpaved roadways within the BSA and along the pilot channel and manufactured banks of the CVSC and elsewhere within the BSA. Tamarisk thickets are covered under the CVMSHCP.

Barren

The barren land cover type is characterized by sparse vegetation or complete absence of vegetated cover. This community was mapped adjacent to various paved and unpaved roadways, within the northern portion of the WRP 4 property.

Mudflats

Mud flats are characterized by fine-grained substrate and a lack of vegetation and were mapped along the existing Salton Sea shoreline.

Open Water

Open water in the form of agricultural irrigation reservoirs were mapped throughout the BSA.

Disturbed

Disturbed land cover includes areas characterized by ongoing disturbance that results in little vegetative cover, generally consisting of non-native species, including Russian thistle (*Salsola* sp.) and tumbleweed (*Amaranthus albus*). Disturbed areas within the BSA include road shoulders, unpaved, and maintained areas within the WRP 4 property and the constructed banks of the CVSC.

Developed

Developed land cover within the BSA includes paved roadways, agricultural infrastructure, and existing WRP 4 facilities.

Unvegetated Channel

Unvegetated channel describes open portion of the pilot channel within the CVSC that either support sparse vegetative cover or lack vegetation entirely.

Outside of the Biological Study Area - Salton Sea

The Salton Sea is the largest lake in California, measuring approximately 35 miles long and 9 to 15 miles wide with about 360 square miles of water surface area and 120 miles of shoreline. The Salton Sea lies in a geographic depression known as the Salton Basin located approximately 278 feet below mean sea level. Information regarding the current ecological conditions at the Salton Sea used in this analysis can be found in the SSMP Phase 1: Ten-Year Plan Imperial and Riverside Counties Draft Environmental Assessment prepared by the US Army Corps of Engineers in 2022 (USACE 2022).

As the Salton Sea water elevation recedes, the shores generally consist of exposed lakebed, which is often barren or sparsely vegetated with weedy, non-native species. In areas where freshwater or brackish water flows to the Sea, patches of vegetation, generally dominated by iodine bush (*Allenrolfea occidentalis*) or tamarisk (*Tamarix sp.*), are present. Additionally, stands of tamarisk intermixed with various other tree species such as Fremont cottonwood and Goodding's willow occur in riparian areas at the edge of the Sea, fed by the Coachella Valley Stormwater Channel, New River, Alamo River and other smaller tributaries including agricultural drains (USACE 2022).

Plants and Wildlife

Biological Study Area – Coachella Valley Stormwater Channel

Various plant and wildlife species observed within the BSA during the reconnaissance survey; those that were documented during the survey are provided in this Draft EIR Appendix BIO, SubAppendix C.

Outside of the Biological Study Area - Salton Sea

Wildlife known to utilize the Salton Sea to forage and breed are presented below.

Birds

The Salton Sea supports a high diversity of bird species, with over 400 species documented within its vicinity. It provides year-round habitat for resident nesting colonies and also supports over-wintering and migration for numerous species within the Pacific Flyway.

Common shoreline, wading, and waterfowl bird species known to utilize the Salton Sea include western and Clark's grebes (*Aechmophorus occidentalis* and *A. clarkii*, respectively), northern pintail (*Anas acuta*), and green-winged teal (*Anas crecca*), least sandpiper (*Calidris minutilla*), snow geese (*Chen caerulescens*) and Ross's geese (*Chen rossii*), American coot (*Fulica americana*), black-necked stilt (*Himantopus mexicanus*), dowitchers (*Limnodromus spp.*), marbled godwit (*Limosa dedoa*), American wigeon (*Mareca americana*), ruddy duck (*Oxyura jamaicensis*), American white pelican (*Pelecanus erythrorhynchos*), California brown pelican (*Pelecanus occidentalis*), Wilson's phalarope (*Phalaropus tricolor*), black-bellied plover (*Pluvialis squatarola*), eared grebe (*Podiceps nigricollis*), American avocet (*Recurvirostra americana*), northern shoveler (*Spatula clypeata*) and willet (*Tringa semipalmata*) (Shuford et al. 2000; Jehl 1994).

Common riparian bird species that occur within or adjacent to the riparian habitat that occurs along the Salton Sea shoreline include red-winged blackbird (*Agelaius phoeniceus*), verdin (*Auriparus flaviceps*), marsh wren (*Cistothorus palustris*), common yellowthroat (*Geothlypis trichas*), house finch (*Haemorrhous mexicanus*), Abert's towhee (*Melospiza aberti*), song sparrow (*Melospiza melodia*) and black phoebe (*Sayornis nigricans*) (Dudek 2010).

A number of raptor species have been recorded at the Salton Sea as well, including burrowing owl (*Athene cunicularia*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), American peregrine falcon (*Falco peregrinus anatum*), and osprey (*Pandion haliaetus*), most of which are common winter or nonbreeding summer visitors, only present to utilize the foraging habitat within marshes, open scrub habitats, and nearby agricultural fields (USACE 2022).

Terrestrial Wildlife

Common terrestrial reptiles known to occur in upland habitats surrounding the Salton Sea include western diamondback rattlesnake (*Crotalus atrox*), gopher snake (*Pituophis catenifer*), desert spiny lizard (*Sceloporus magister*) and side-blotched lizard (*Uta stansburiana*).

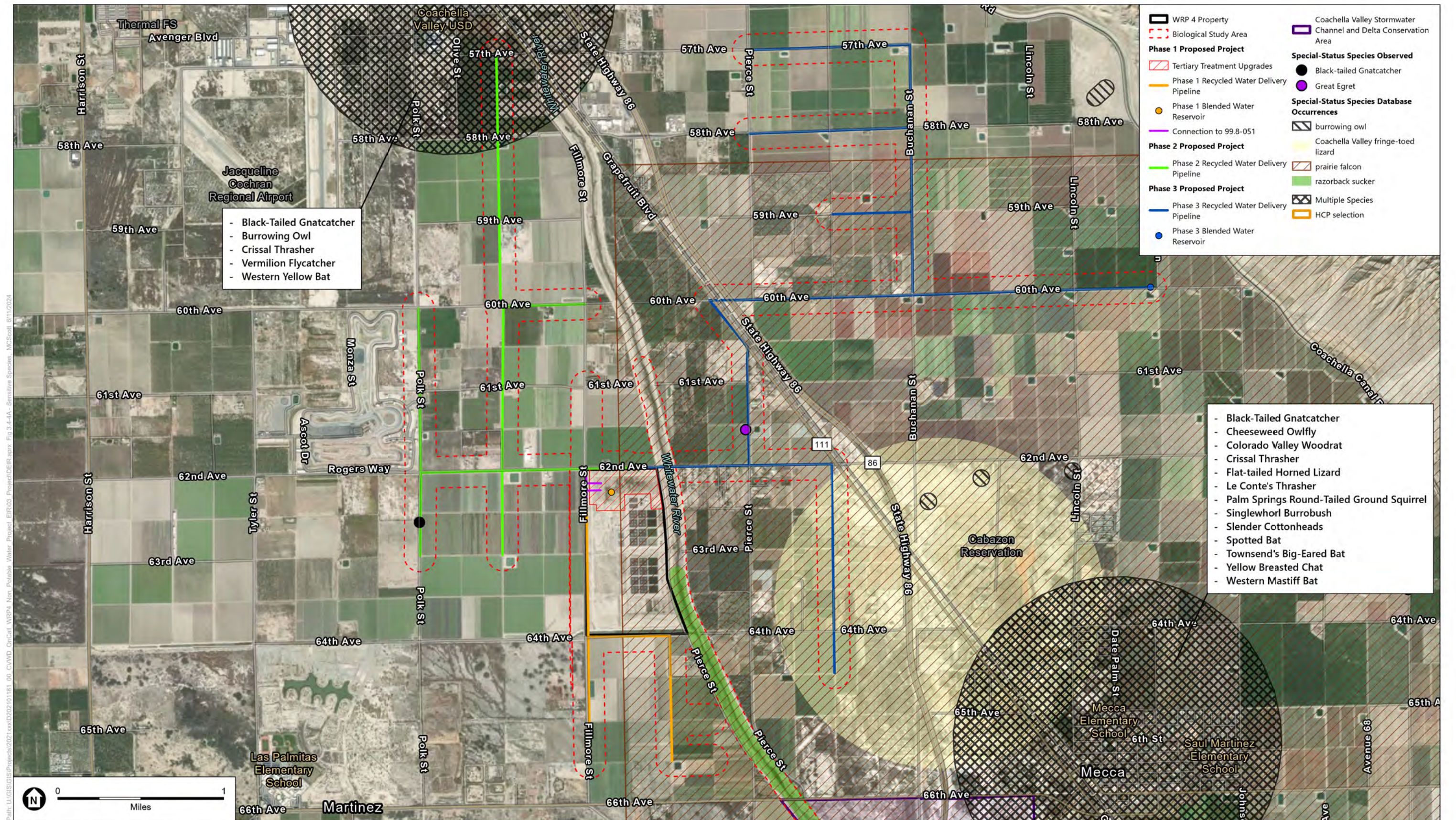
Common mammals that occur in riparian, upland, and agricultural habitats around the Sea include coyote (*Canis latrans*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), muskrat (*Ondatra zibethicus*), raccoon (*Procyon lotor*), round-tailed ground squirrel (*Spermophilus tereticaudus*), desert cottontail (*Sylvilagus audubonii*) and western pocket gopher (*Thomomys bottae*) (USACE 2022).

Special-Status Plants and Wildlife

Biological Study Area – Coachella Valley Stormwater Channel

Sensitive species observed during the site visit, or with potential to occur within the BSA are presented in **Figure 3.4-4**. Special-status plants and wildlife are defined as those 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. Some of these species receive specific protection that is defined by federal, or state endangered species legislation and others have been designated as special-status on the basis of adopted local policies (e.g., city and county) or the educated opinion of various resource interest groups (e.g., California Native Plant Society [CNPS]). Special-status species are defined as any of the following:

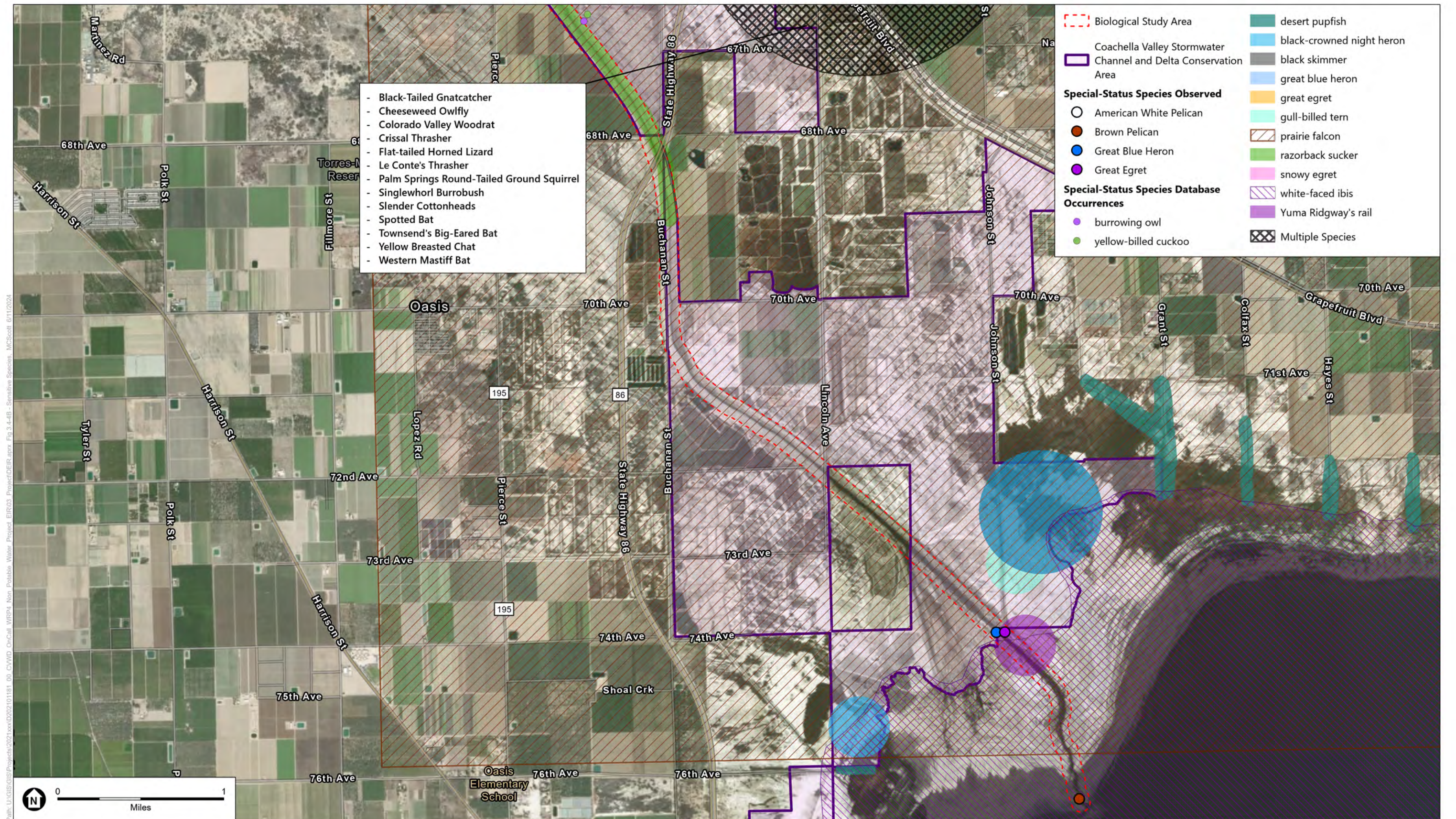
- Plant and wildlife species that are listed or proposed for listing as threatened or endangered or are candidates for possible future listing as threatened or endangered, under FESA or CESA.
- Plant and wildlife species that meet the definitions of rare or endangered under CEQA Guidelines Section 15380.
- Wildlife designated by CDFW as species of special concern (SSC), included on the Watch List, or considered “Special Animals.”
- Wildlife fully protected in California (CFGF Sections 3511, 4700, and 5050).
- 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 in which more information is needed to determine their status and plants of limited distribution (List 3 and 4 plants).
- Plants listed as rare under the California Native Plant Protection Act (CFGF 1900 et seq.).
- Bird species protected by the MBTA.



SOURCE: ESA, 2023; CDFW, 2023; USFWS, 2023

WRP 4 Project

Figure 3.4-4A
Sensitive species observations within the Study Area



SOURCE: ESA, 2023; CDFW, 2023; USFWS, 2023

WRP 4 Project

Figure 3.4-4B
Sensitive species observations within the Study Area

Based on the literature and database review and the field reconnaissance, special-status species were evaluated for their potential to occur within the BSA, using the following definitions:

- **Present:** Species was observed or detected within the BSA during the biological resources assessment.
- **High Potential:** Species identified in the literature search and/or known to occur in the region and suitable habitat is present within the BSA.
- **Moderate Potential:** Species identified in the literature search and/or known to occur in the region and marginal habitat is present within the BSA.
- **Low Potential:** Species identified in the literature search or known to occur in the region, but the habitat within the BSA is of low quality and/or the BSA is located outside the species' known geographic or elevational range. Distance to nearest known occurrence and the age of last reported local occurrence are also considered.

Special-Status Plants

Numerous special-status plant species were identified in the database review; however, many were omitted based on a lack of habitat, or because the BSA is situated outside the range of the species. A total of five species, the Coachella valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*), California ditaxis (*Ditaxis serrata* var. *californica*), chaparral sand verbena (*Abronia villosa* var. *aurita*), slender woolly-heads (*Nemacaulis denudata*) and purple stemodia (*Stemodia durantifolia*) were determined to have a moderate potential to occur due to the presence of marginal habitat. Species determined to have a low to moderate potential to occur are summarized in this Draft EIR Appendix BIO, SubAppendix D1.

Special-Status Wildlife

Numerous special-status wildlife species were identified in the database review; however, many were omitted based on a lack of suitable habitat, or because the BSA is situated outside the range of the species. A total of 24 species have a moderate to high potential to occur based on the presence of suitable habitat within the BSA, thirteen of which are covered species (covered) under the CVMSHCP: burrowing owl (*Athene cunicularia*) (covered), ferruginous hawk (*Buteo regalis*), Townsend's big-eared bat (*Corynorhinus townsendii*), desert pupfish (*Cyprinodon macularius*) (covered), snowy egret (*Egretta thula*), prairie falcon (*Falco mexicanus*), gull-billed tern (*Gelochelidon nilotica*), yellow-breasted chat (*Icteria virens*) (covered), loggerhead shrike (*Lanius ludovicianus*), western yellow bat (*Lasiurus xanthinus*) (covered), Colorado Valley woodrat (*Neotoma albigula* ssp. *venusta*) (covered), black-crowned night heron (*Nycticorax ludovicianus*), Palm Springs pocket mouse (*Perognathus longimembris* ssp. *bangsi*) (covered), American badger (*Taxidea taxus*), summer tanager (*Piranga rubra*) (covered), white-faced ibis (*Plegadis chihi*), vermilion flycatcher (*Pyrocephalus rubinus* ssp. *flammeus*) (covered), Yuma Ridgway's rail (*Rallus obsoletus* ssp. *yumanensis*) (covered), black skimmer (*Rynchops niger*), yellow warbler (*Setophaga petechia*) (covered), crissal thrasher (*Toxostoma crissalis*) (covered), Le Conte's thrasher (*T. lecontei*) (covered), least Bell's vireo (*Vireo belli* ssp. *pusillus*) (covered). Five additional species were observed within the BSA during the site visit, including great egret (*Ardea alba*), great blue heron (*A. herodias*), American white pelican (*Pelecanus erythrorhynchos*), brown pelican (*P. occidentalis* ssp. *californicus*) and black-tailed gnatcatcher (*Polioptila melanura*). Species determined to have a low to high potential to occur within the BSA are summarized in this Draft EIR Appendix BIO, SubAppendix D1.

Outside of the Biological Study Area - Salton Sea

Many of the special-status plant and wildlife species discussed above regarding the BSA and analyzed in the BRTR, may also occur within similar habitat types present along the shoreline of the Salton Sea. Additional information on a subset of these species expected to occupy wetland and aquatic habitats within the BSA and the shoreline of the Salton Sea is provided below.

California Black Rail

The California black rail is state threatened. This species is a resident in saline, brackish and fresh emergent wetlands including near the Salton Sea. Suitable habitat along the Salton Sea consists of freshwater emergent marsh with either moist substrate or shallow water (i.e., up to 1.2 inches deep). They typically do not occur in low wetland areas with considerable annual and/or daily fluctuations in water levels and instead are found in the high wetland zones near the upper limit of tidal flooding. They are carnivorous, gleaning isopods, insects and other arthropods within suitable habitat. This species is known to breed between March and June (CDFW 1999). It typically nests at the base of tall vegetation, in moist substrate, but may place material in up to 1-inch deep of water (Cornell Lab of Ornithology 2024).

Desert Pupfish

Desert pupfish occupy habitats ranging from wetlands and springs to small streams and margins of larger bodies of water and can thrive in irrigation drains and ditches (USFWS 1993). They prefer clear, shallow waters with soft sand-silt substrate, either rooted or unattached aquatic plants and very restricted surface flow (Black 1980, USFWS 1993). Within irrigation drains desert pupfish seemed to prefer areas having a sand-silt substrate with either rooted or unattached aquatic plants, and a very restricted surface flow. Trapping conducted in various habitat types documented pupfish at depths of between 10 and 61 cm (typically 30 cm) in agricultural drains, between 25 and 152 cm in natural creeks, and between 10 and 61 cm deep in shoreline pools (Black 1980). High salinity in the Salton Sea will eventually prevent pupfish from using the Sea to move between freshwater habitats, effectively isolating populations (USFWS 2010).

Least Bell's Vireo

Least Bell's Vireo is state and federally endangered. This insectivorous subspecies breeds within dense riparian and shrub vegetation associated with aquatic habitats in Southern California (including the Lower Colorado River) and Baja California. It is commonly associated with habitats that include willow and mulefat (*Baccharis salicifolia*) and are known to breed between March and August. Least Bell's Vireo have been documented in the IID Water contract service Area within the Imperial Irrigation District Managed Marsh Complex (CDFW 2023a).

Southwestern Willow Flycatcher

The Southwestern willow flycatcher is state and federally endangered. This insectivorous species breeds within dense riparian and shrub vegetation associated with aquatic habitats in southwestern North America, near or adjacent to surface water. This species is commonly associated with habitats that include willow and mulefat (*Baccharis salicifolia*). Southwestern willow flycatcher has been documented along the Lower Colorado River near the Palo Verde Diversion Dam, Imperial National Wildlife Refuge and south towards the Laguna Mountains (CDFW 2023a).

Yuma Ridgway's Rail

The Yuma Ridgway's rail is state threatened and fully protected and federally endangered. Yuma Ridgway's rails construct nests on stable substrates (e.g., at bases of emergent vegetation or in mats of dead vegetation) in shallow water along the shoreline of marsh habitat or over deeper water. Water depths within proximity of active nests have been documented ranging between 5 centimeters and 1 meter (USFWS 2023c). The Yuma Ridgway's rail has been documented in the Salton Sea playa emergent wetland habitat, the Sonny Bono National Wildlife Refuge, within drains and canals, along the Alamo River and within the Imperial Wildlife Area (CDFW 2023a).

CDFW Sensitive Natural Communities and CVMSHCP Covered Natural Communities

Sensitive natural communities and habitats are defined by the CDFW as natural communities that have a reduced range and/or are imperiled as a result of residential and commercial development, agriculture, energy production and mining, or an influx of invasive and other problematic species. Vegetation communities are evaluated using NatureServe's Heritage Methodology (NatureServe 2023), which is based on the knowledge of range and distribution of a specific vegetation type and the proportion of occurrences that are of good ecological integrity. The communities and habitats are evaluated at 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 with state ranks of S1–S3 are considered sensitive and may require review when environmental impacts are evaluated. When a community is given a rank of NR, this indicates that it has not yet been ranked under NatureServe.

Biological Study Area – Coachella Valley Stormwater Channel

A total of four natural communities, including arrow weed thickets, bush seepweed scrub, iodine bush scrub and Sonoran cottonwood-willow riparian forest were mapped within the BSA and would constitute CDFW sensitive natural communities. These four communities are also categorized as covered natural communities under the CVMSHCP, organized as follows: desert sink scrub (iodine bush scrub, bush seepweed scrub), arrowweed scrub (arrowweed thickets), and Sonoran cottonwood-willow riparian forest.

Outside of the Biological Study Area – Salton Sea

A field effort was not conducted to map natural communities and land cover types along the Salton Sea shoreline; however, various scrub and riparian communities that meet criteria for CDFW sensitive natural communities (state rank of S1-S3) are expected to occur in these areas.

Critical Habitat

Under FESA, to the extent feasible, the USFWS and National Marine Fisheries Service are required to designate critical habitat for endangered and threatened species. Critical habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated critical habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter. Designated critical habitats require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. Critical habitat delineates all suitable habitat, occupied or not, essential to the survival and recovery of the species.

The BSA and elsewhere within the project area do not occur within or immediately adjacent to USFWS designated critical habitat; therefore, is not discussed further in this report.

Aquatic Resources

Aquatic resources observed within the BSA and elsewhere within the project area include the CVSC, associated agricultural drains and the Salton Sea. A formal aquatic resource delineation was not conducted; however, observations made during the biological resources assessment and prior knowledge of the resources in the region suggest that they may be under the jurisdiction of the USACE, RWQCB and/or CDFW.

Wildlife Movement

Migration corridors are navigable pockets or strips of land that connect larger tracts of open space together, allowing them to function as a greater habitat complex. These “passages” can exist on a small scale, allowing wildlife to pass through or under an otherwise uninhabitable area including a roadway, housing development, or city through drainage culverts, green belts and waterways; or on a larger scale, providing an opportunity for wildlife to skirt large topographical features (e.g., mountains, lakes, streams) by utilizing adjacent canyons, valleys and upland habitat swaths when migrating.

The BSA and elsewhere within the project area generally consists of disturbed/developed land use interspersed with fragmented native habitats and is not located within a Linkage Design per the South Coast Missing Linkages map (South Coast Wildlands 2008) or within an area of the California Essential Habitat Connectivity Project (CDFW 2023c). However, the CVSC, associated agricultural drains and the Salton Sea are likely used by wildlife to forage, breed and migrate through the BSA. Common wildlife species expected to depend on the CVSC for movement include the coyote (*Canis latrans*), Virginia opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), and grey fox (*Urocyon cinereoargenteus*). Additionally, the Salton Sea is located within the Pacific Flyway and is known to support large-scale avian migration (USACE 2022).

3.4.3 Impact Analysis and Mitigation Measures

This section provides an overview of the criteria used to determine the significant of impacts, the methodology used to identify potential effects, and it presents measures proposed to mitigate for impacts to biological resources.

Significance Criteria

Refer to pages 3.4-1 and 3.4-2 above for a summary of the environmental issues included in this Draft EIR for the analysis of biological resources. The following criteria from CEQA Guidelines Appendix G are used to identify the impacts of the proposed project as related to biological resources. This Draft EIR assumes that the implementation of the proposed project would have a significant 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 CDFW or USFWS.

- 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.
- 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.
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
- Result in cumulatively considerable impacts to biological resources.

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 Effects:** 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 Effects:** Biological resources may also be affected in an indirect manner as a result of project-related activities. An example of indirect effects 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 Effects:** 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 Effects:** All effects 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.

A project is generally considered to have a significant effect if it proposes or results in any of the effects or conditions described in the significance thresholds discussed above, absent specific evidence to the contrary. Conversely, if a project does not propose or result in any of these effects or conditions, it would generally not be considered to have a significant effect on biological resources, absent specific evidence of such an effect.

Coachella Valley Storm Channel Hydrology Assessment

To estimate the effects to aquatic and riparian habitat within the CVSC resulting from the proposed WRP 4 discharge reductions, an assessment was conducted that compiled hydrological information from the USGS gage and CVWD channel monitoring and modeled the proposed flow reductions. The results of this analysis are included in Appendix HYDRO-1.

Salton Sea Accounting Model

The Salton Sea Accounting Model (SSAM) was used to estimate the future condition of inflows to the Salton Sea from Coachella Valley that have the highest probability of occurring. The SSAM estimates the response of Salton Sea water elevation, salinity, and acreage of exposed lakebed playa to changing inflows. Appendix HYDRO-2 (ESA 2025) describes the model results. The proposed project's contribution to the cumulative flow reductions were compared with future scenarios that included projects currently being implemented to comply with the 2022 WMP to best predict future baseline conditions. The SSAM results find that future flows from the Coachella Valley are predicted to be greater than existing flows, even when accounting for the proposed project discharge diversions from the CVSC.

Impact Analysis

Species Impacts

Impact 3.4-1: Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The proposed project would not 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 CDFW or USFWS. Implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4 and BIO-5 would ensure that impacts to special-status species are reduced. Potential impacts would be less than significant with mitigation.

Plants

A total of five species, the Coachella valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*), California ditaxis (*Ditaxis serrata* var. *californica*), chaparral sand verbena (*Abronia villosa* var. *aurita*), slender woolly-heads (*Nemacaulis denudata*) and purple stemodia (*Stemodia durantifolia*) were determined to have a moderate potential to occur due to the presence of marginal habitat within the BSA.

Construction

The construction of the WRP 4 facilities will take place entirely within barren land cover, which does not constitute habitat for special-status plant species. Similarly, construction of the recycled water delivery pipelines will occur within developed land use, either within paved and un-paved roadways or shoulders, or along existing bridges. Construction will be temporary and will not result in persistent indirect effects from dust. As a result, the proposed construction will not directly or indirectly affect special-status plants. A less than significant impact would occur.

Operation

CVSC

The proposed reclamation and reuse of all flow at WRP 4 is not expected to substantially reduce the flow within the CVSC, downstream of the facility to the Salton Sea. Effects of the flow reduction on downstream channel hydrology and riparian vegetation were analyzed to determine the project's potential effect on riparian vegetation and/or wetland habitat. The analysis showed that evapotranspiration requirement of the vegetation along the CVSC downstream of the WRP 4 under existing conditions is 1.9 cubic feet/second (cfs), whereas the proposed flows under Phase 3 (assuming zero discharge from WRP 4) is expected to remain at or above 25.1 cfs (Draft EIR Appendix HYDRO-1, pg. 22). This indicates that the proposed project operation will not cause a decline or loss of riparian/wetland vegetation or special status plant species (e.g., purple stemodia). Therefore, the proposed project will not directly or indirectly impact special-status plants (see Draft EIR Appendix HYDRO-1). A less than significant impact would occur.

Salton Sea

The reduction of up to 0.58 percent of the inflow into the Salton Sea during Phase 3 compared with existing conditions would contribute to the predicted cumulative inflow reduction to the Sea that could lower water elevation as described in Appendix HYDRO-2. However, the lowering of the Sea's elevation would not impact any special status plant species since the exposed playa and littoral perimeter of the Salton Sea do not support special status plant species. The Salton Sea itself is too saline to support littoral rare plants. As the playa expands, it will become more vegetated over time, not less. As a result, impacts to special-status plant species at the Salton Sea would be less than significant.

Special-status Wildlife

Birds

A total of 18 special-status bird species either have a moderate/high potential to occur within the BSA and project area, or were observed during the site assessment (within the BSA). These include the black-crowned night heron, black skimmer, burrowing owl, crissal thrasher, ferruginous hawk, gull-billed tern, Le Conte's thrasher, least Bell's vireo, loggerhead shrike, prairie falcon, snowy egret, summer tanager, yellow-breasted chat, yellow warbler, vermilion flycatcher, white-faced ibis, yellow warbler and Yuma Ridgway's rail.

Construction

Construction of the WRP 4 facilities and recycled water delivery pipelines will take place entirely within barren land cover and developed land use, respectively, and therefore will not result in the removal of suitable habitat for special-status birds. However, construction-generated noises and lighting may result in a temporary, direct impact to special-status birds that may occupy desert scrub habitat adjacent to the paved and un-paved roadways and/or the riparian vegetation within the CVSC, adjacent to the existing WRP 4 facility. **Mitigation Measure BIO-1: Nesting Birds** would ensure that construction activity does not occur within a suitable buffer distance from nesting birds. **BIO-2: Burrowing Owl** would ensure that surveys are conducted prior to construction to avoid impacting occupied burrows. **BIO-3: Nighttime Lighting** would require that construction lighting and permanent lighting be pointed downward to minimize long distance glare that could disturb nocturnal animals. **BIO-4: General Avoidance and Minimization Measures** would focus construction personnel on impact minimization practices. Implementation of these measures would reduce potential impacts to a less than significant level.

Operation

CVSC. The proposed Project would reduce discharges into the CVSC, which supports riparian vegetation that may support special status wildlife. An assessment included in Appendix HYDRO-1 was conducted to evaluate potential impacts of flow reduction to the riparian vegetation. The assessment concludes that the water demand of the existing vegetation downstream of the WRP 4 to the Salton Sea would be met under Phase 3 of the proposed Project, when discharges from WRP 4 are zero. To estimate the potential loss of habitat supporting special status birds, the analysis calculates the maximum change in depth and wetted area when discharges are zero as a result of the proposed project in several locations along the CVSC including at the delta with the Salton Sea. As noted on page 22 of Appendix HYDRO-1, water depth in the channel may decline an average of 0.10 feet during Phase 3; the width of the channel may be reduced an average of 2.4 feet, representing a channel narrowing maximum of approximately 4 percent. The analysis concludes that in the main channel, vegetation would not diminish but would maintain a similar canopy cover at the water's edge. The estimated minor width reduction would not diminish the vegetation canopy at the edge of the low flow channel. Furthermore, upland vegetation within the channel is routinely cleared to the edge of the riparian corridor to maintain the channel's flood control functions by the Riverside County Flood Control District.

At the end of the CVSC, the levees widen, but a low-flow pilot channel conveys surface water to the Salton Sea across the newly exposed lakebed. Any reduction in width of this low flow channel would similarly not affect the vegetation acreage supported by the slightly reduced surface water flows. During storm flows, breakout channels form on the exposed playa supporting emerging vegetation along the exposed shoreline. The reduction in base flows would not affect the vegetation supported by these breakout channels which are reliant on storm flows only.

Furthermore, the analysis concludes that the flows in the CVSC during Phase 3 of the proposed project would remain substantially greater than the water demand of the existing vegetation. Reduction of flows would not result in loss of vegetation or habitat values. This suggests that the proposed project operation would not cause the decline of riparian/wetland vegetation or habitat for special-status riparian birds (e.g., least Bell's vireo, vermilion flycatcher, etc.) (See Appendix HYDRO-1, ESA 2024). Impacts would be less than significant.

Salton Sea. The proposed project would reduce flows to the Salton Sea by up to 0.58 percent compared to current flows, which would add to the lowering elevation of the Salton Sea by 0.2 feet if other flow increases were not to occur. This lowering of the Sea's elevation would not reduce aquatic habitat used by special status birds along the shores of the already receding Sea. Special status and common bird species will continue to use the Sea and adjacent wetland areas as part of the Pacific Flyway. Furthermore, it is assumed that wetland vegetation will expand in areas of the exposed lakebed where freshwater flows traverse the exposed playa to reach the highly saline Sea. As a result, the proposed project would not contribute to the reduction of bird habitat at the Sea compared to existing conditions or reasonably foreseeable future conditions, including but not limited to Yuma Ridgway's rail habitat (e.g. cattail marsh). Impacts to special-status birds would be less than significant.

The lowering of the Salton Sea elevation is not an adverse effect in itself, but does potentially isolate perimeter riparian habitats and expose dry lakebed to wind erosion potential. The potential for dust emissions from wind erosion on the exposed playa is discussed in the Air Quality Section of this Draft EIR.

To address these effects from cumulative inflow reductions (which are anticipated from the Imperial Valley primarily), DWR and CDFW have prepared the SSMP and Long-Range Plan which identify specific projects to be developed around the perimeter of the Sea to maintain habitat values and decrease dust emissions caused by wind erosion. The SSMP and Long-Range Plan anticipate inflow reductions from Coachella Valley resulting from recycled water projects including the proposed WRP 4 project. As a result, the proposed project would be consistent with the SSMP and Long-Range Plan's projections of inflows from the Coachella Valley. The projects currently being implemented by DWR and CDFW are designed to accommodate a lower and saltier Salton Sea, anticipating flow reductions caused by the proposed project. As a result, the proposed project would not create additional effects not already anticipated by DWR and CDFW.

Since the proposed project's inflow reductions would not contribute significantly to the decreasing Sea elevation or increase reductions compared with those anticipated by the Long-Range Plan (see Appendix HYDRO-2), it would not substantially effect, either directly or through habitat modifications, any species identified as a candidate, sensitive, or special-status species identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Impacts would be less than significant.

Mammals

Five special-status mammal species have a moderate potential to occur within the BSA and project area. These include the American badger, Colorado Valley woodrat, Palm Springs pocket mouse (covered), Townsend's big-eared bat and western yellow bat (covered).

Construction

Construction of the WRP 4 facilities and recycled water delivery pipelines will take place entirely within barren land cover and developed land use, respectively, and therefore will not result in the removal of suitable habitat for special-status mammals. However, construction-generated noises and lighting may result in a temporary, direct impact to special-status mammal species that may occupy desert scrub habitat adjacent to the paved and un-paved roadways and/or the riparian vegetation within the CVSC, adjacent to the existing WRP 4 facility. The proposed construction will not occur within the Coachella Valley Stormwater Channel and Delta Conservation Area; therefore, effects to covered species, including the Colorado Valley woodrat, Palm Springs pocket mouse and western yellow bat, would be considered less than significant.

If American badger and Townsend's big-eared bat entered the construction sites, impacts could be potentially significant without mitigation. Implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4 and BIO-5 would ensure that impacts to species are reduced to a less than significant level.

Operation

CVSC. The proposed reclamation and reuse of all flow at WRP 4 is not expected to substantially reduce the flow within the CVSC, downstream of the facility to the Salton Sea and the analysis of the potential effects of the reduction showed that evapotranspiration requirements of the vegetation along the CVSC (within the BSA) under existing conditions is far less than what will remain within the channel under Phase 3 (final stage) of the project. The proposed project's operation will thus not cause a decline or result in the loss of riparian/wetland vegetation, or habitat for special-status mammals (i.e., Townsend's big-eared bat) (Appendix HYDRO-1; ESA 2024). The impact would be less than significant.

Salton Sea. The proposed project would reduce flows to the Salton Sea by up to 0.58 percent compared to current flows, which would add to the lowering elevation of the Salton Sea by 0.2 feet if other flow increases were not to occur. Currently, the Sea is too saline to support mammals, either for drinking water or for aquatic foraging. It is not considered to be mammal habitat. As the playa expands, terrestrial habitats may increase limited foraging opportunities. As a result, the lowering of the Sea's elevation would not reduce habitat used by terrestrial mammal species, but may expand it. Therefore, impacts to special-status mammals are expected to be less than significant.

Fish

One special status species of fish, the desert pupfish, has a high potential to occur along the CVSC, within the BSA. Desert pupfish occupy habitats ranging from cienagas and springs to small streams and margins of larger bodies of water and can thrive in irrigation drains and ditches (USFWS 1993). They prefer clear, shallow waters with soft sand-silt substrate, either rooted or unattached aquatic plants and very restricted surface flow (Black 1980, USFWS 1993). Within irrigation drains desert pupfish seemed to prefer areas having a sand-silt substrate with either rooted or unattached aquatic plants, and a very restricted surface flow. Trapping conducted in various habitat types documented pupfish at depths of between 10 and 61 cm (typically 30 cm) in agricultural drains, between 25 and 152 cm in natural creeks, and between 10 and 61 cm deep in shoreline pools (Black 1980).

Construction

Construction of the WRP 4 facilities and recycled water delivery pipelines will take place entirely within barren and developed land use, respectively, and therefore will not result in the removal of suitable habitat for special-status fish species. Moreover, proposed construction will not occur within the Coachella Valley Stormwater Channel and Delta Conservation Area, and construction thus will not result in runoff that may affect water quality; therefore, effects to the desert pupfish would be less than significant.

Operation

CVSC. The proposed reclamation and reuse of all flow at WRP 4 will not substantially reduce the flow within the CVSC to the Salton Sea. Hydraulic modeling included in Appendix HYDRO-1 estimated the flow depth reductions would be undetectable in Phase 1 and 2 (a few hundredths of a foot on average, representing 1-2 percent of existing depth for Phase 1 and 3-5 percent for Phase 2) of the project and less than 1/10 foot for Phase 3 (Draft EIR Appendix HYDRO-1).

As presented in Table 4 of Appendix HYDRO-1, water depth within the CVSC under Phase 3 conditions, which assumes zero discharges from WRP 4, will remain above 10 centimeters (the minimum depth desert pupfish have been found), except for two cross sections located downstream of WRP 4 and upstream of the USGS Lincoln Street gauge (cross section XS-417688 is expected to reach a low of 9.45 cm and 13355 is expected to reach a low of 9.75 cm). All other cross sections within this reach of the CVSC will have an average flow depth at or above 36.89 cm. Phase 3 conditions downstream of the USGS Lincoln Street Gauge will have an average flow depth that remains at or above 51.21 cm (Appendix HYDRO-1; ESA 2024). The minor effect to depth in the channel at a few locations compared to existing conditions would not result in a loss of habitat availability or connectivity between adjacent agricultural drains and the CVSC since desert pupfish are mobile and able to find preferred habitat within the CVSC and network of tributaries. Further, as noted in the above under Special-Status Plants and Wildlife, pupfish have been captured in water depths ranging between 10 and 152 cm. On average, Phase

3 conditions are expected to maintain water depths well within this range and only deviate slightly below 10 cm (the minimum depth desert pupfish have been found) at two locations. The modeled depth of 9.45 cm depth at two locations would not prevent pupfish from passing through these segments to deeper water. Ample area (many linear miles) would remain of water deeper than 10 cm in the system. The flow reduction would not result in the degradation of existing habitat or hinder the movement of desert pupfish within CVSC or tributary drainages. Impacts to desert pupfish would be less than significant.

Salton Sea. The proposed project would reduce flows to the Salton Sea by up to 0.58 percent compared to current flows, which would add to the lowering elevation of the Salton Sea by 0.2 feet. This lowering of the Sea's elevation would not impact fish species in the highly saline sea, since the sea is already too salty to support fish. Sensitive fish species in the vicinity such as desert pupfish may utilize the neighboring irrigation drains, but not the sea itself. As a result, the modification to the elevation and salinity of the sea caused by the proposed project would not alter the habitat suitability of the sea for fish. As a baseline condition, the Salton Sea is becoming too saline for fish to inhabit. In 2010, the USFWS predicted that high salinity in the Salton Sea will eventually prevent pupfish from using the Sea to move between freshwater habitats, effectively isolating populations (USFWS 2010). These conditions have largely come to pass since the statement was made in 2010. This increasing salinity will continue into the future with or without the proposed project. In addition, agricultural drains that may support fish such as the desert pupfish will continue to do so as the Sea elevation recedes, dependent on agricultural return flows. The proposed project would not reduce the availability of this habitat or reduce habitability of the Salton Sea compared with existing and projected future conditions.

Furthermore, habitat restoration projects including the North Lake Restoration Project are being developed by the SSMP to provide refuge for fish. These habitat creation projects will not be affected by the proposed project, since the SSMP future inflow projections on which they are designed already include implementation of the proposed project. The proposed project would not limit the new SSMP aquatic habitat restoration projects. Impacts to special-status fish including the desert pupfish will be less than significant.

Mitigation Measures

Mitigation Measure BIO-1: Nesting Birds. If construction work activities occur within the avian nesting season (generally defined as January 15 through September 15), a qualified biologist will conduct a nesting bird and raptor survey no less than 3 days prior to ground disturbance to identify any active nests within 500 feet of suitable nesting habitat. If an active nest is found, the nest shall be avoided, and a suitable buffer zone delineated in the field where no impacts would occur until the chicks have fledged the nest as determined by a qualified biologist. Construction avoidance buffers are generally 300 feet for non-listed passerines and 500 feet for listed avian species (i.e., least Bell's vireo) and raptors; however, avoidance buffers may be reduced for non-listed species at the discretion of the biologist, depending on the location of the nest and the species' tolerance to human presence and construction-related noises and vibrations.

Mitigation Measure BIO-2: Burrowing Owl. A qualified biologist will conduct a survey of suitable burrowing owl habitat within 500 feet of proposed construction activities. If a burrow is located, the biologist will determine if an owl is present in the burrow. If the burrow is determined to be occupied, the burrow will be flagged and a 160-foot buffer during the non-breeding season and a 250-foot buffer during the breeding season, or a buffer to the edge of the project site if less than 500 feet, will be established around the burrow. The buffer will be staked

and flagged. No disruptive activities will be permitted within the buffer until the young are no longer dependent on the burrow.

If the burrow is unoccupied, the burrow will be made inaccessible to owls, and the construction may proceed. If either a nesting or escape burrow is occupied, owls shall be relocated through coordination with the CDFW and USFWS. Determination of the appropriate method of relocation, such as eviction/passive relocation or active relocation, shall be based on the specific site conditions (e.g., distance to nearest suitable habitat and presence of burrows within that habitat) in coordination with the CDFW and USFWS. Active relocation and eviction/passive relocation require the preservation and maintenance of suitable burrowing owl habitat determined through coordination with the CDFW and USFWS.

Mitigation Measure BIO-3: Nighttime Lighting. Construction activities shall be restricted to between the hours of 7 a.m. and 7 p.m. where feasible. If nighttime construction is necessary, all light sources shall be directed away from sensitive receptors (i.e., adjacent habitats) to reduce impacts to sensitive biological resources utilizing the habitat.

Permanent lighting installed as part of the WRP 4 facilities construction shall be directed away from adjacent habitats to reduce impacts to sensitive biological resources during Project operation.

Mitigation Measure BIO-4: General Avoidance and Minimization Measures

- Prior to the commencement of construction activities, construction personnel shall check under stationary equipment to ensure no wildlife species are present.
- All trash shall be collected daily and taken off-site for proper disposal.
- Prior to Project implementation, a Workers Environmental Awareness Program (WEAP) shall be prepared and presented to construction crews regarding the potential for nesting birds and other special-status wildlife species to occur on-site during construction activities. The WEAP training will concentrate on the proper identification of sensitive resources while in the field, strategies to avoid impacts to sensitive resources, and proper reporting methods for field crews if sensitive resources are observed during construction activities.
- Erosion control measures (e.g., silt fencing, straw wattles) shall be implemented within the project area to prevent sediment/contaminants from continuing off-site.
- Drip pans shall be placed underneath all mechanical machinery that will be staged within or adjacent to aquatic resources.
- Refueling of equipment shall be conducted at least 50 feet from aquatic resources.

Mitigation Measure BIO-5: Bats. Prior to commencement of construction activities, within or outside of the maternity roosting season (March through August), a qualified biologist shall conduct a pre-construction clearance survey throughout the development footprint and fuel-modification zones that are determined to provide suitable bat roosting habitat to determine if bats are roosting within 500 feet of proposed project activities. If bats are determined to be using trees specifically for roosting, the biologist will determine whether a day roost (non-breeding) or maternity roost (lactating females and dependent young) is present.

If a day roost is determined to be present, the biologist shall ensure that direct mortality to roosting individuals will not occur. If removal of any trees supporting a day roost would occur,

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 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. At a minimum, the plan shall include avoidance and minimization measures to evict bats safely and humanely and prescribe methods to minimize any potential impacts.

Significance Determination

Less than Significant Impact with Mitigation

Sensitive Natural Communities

Impact 3.4-2: Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS?

The proposed project would not 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. Potential impacts would be less than significant.

Critical Habitat

No critical habitat occurs within the BSA or project area; therefore, impacts would be less than significant.

Sensitive Natural Communities and CVMSHCP Covered Natural Communities

A total of four natural communities, including arrow weed thickets, bush seepweed scrub, iodine bush scrub and Sonoran cottonwood-willow riparian forest would constitute CDFW sensitive natural communities. These communities are also categorized as covered natural communities under the CVMSHCP, organized as follows: desert sink scrub (iodine bush scrub, bush seepweed scrub), arrowweed scrub (arrowweed thickets), and Sonoran cottonwood-willow riparian forest. CDFW sensitive natural communities may also occur along the shoreline of the Salton Sea, elsewhere in the project area.

Construction

The construction of the WRP 4 facilities and recycled water delivery pipelines will take place entirely within barren land cover and developed land use, respectively, and will not directly or indirectly affect CDFW sensitive communities or CVMSHCP covered natural communities.

Impacts to riparian vegetation along the 62nd Avenue bridge will be addressed through a formal aquatic resources delineation and permits agreements, if needed, as discussed below under Issue 3. Impacts will be less than significant.

Operation

CVSC

The proposed reclamation and reuse of all flow at WRP 4, consistent with Phase 3 conditions, will not substantially reduce the flow within the CVSC, downstream of the facility to the Salton Sea. The analysis of the potential effects of the reduction revealed that evapotranspiration requirements of the vegetation

along the CVSC (within the BSA) under existing conditions is far less than what will remain within the channel under Phase 3 (final stage) of the project. That is to say, the annual water demand of the current vegetation is far less than the amount of water remaining in the channel once the project is fully implemented. As a result, none of the existing riparian vegetation will be separated from its current water source or face reduced water availability. The proposed project operation will thus not result in the decline or loss of CDFW sensitive/CVMSHCP covered riparian/wetland vegetation mapped along the CVSC, including arrow weed thickets, bush seepweed scrub, iodine bush scrub and Sonoran cottonwood-willow riparian forest. Therefore, project operation will not directly or indirectly affect CDFW sensitive communities or CVMSHCP covered natural communities (Appendix HYDRO-1; ESA 2024) and impacts would be less than significant.

Salton Sea

The proposed project would reduce flows to the Salton Sea by up to 0.58 percent compared to current flows, which would add to the lowering elevation of the Salton Sea by 0.2 feet if other flow increases were not to occur. This lowering of the Sea's elevation would not reduce riparian habitat.

Riparian vegetation that meets the criteria for CDFW sensitive natural communities occurs along the receding shoreline of the Salton Sea where freshwater or brackish water flows across the exposed lakebed. This wetland vegetation has expanded in areas of the exposed lakebed near surface water inflows that traverse the exposed playa to reach the highly saline Sea. These sensitive natural communities do not exist in the saline water. The lowering Sea level would not reduce freshwater wetlands, but more likely would result in increased freshwater wetlands where drainages flow to the receding the Sea.

Furthermore, as described in Appendix HYDRO-2, the proposed project would not increase the flow reductions beyond those assumed in the SSMP and Long-Range Plan. As a result, the planned restoration efforts outlined in the SSMP and Long-Range Plan would not be faced with reduced water availability since the future inflow projections on which they are designed already include implementation of the proposed project. The estimated future flow conditions in the Long-Range Plan include flow reductions assumed in the proposed project. Impacts to sensitive habitats including restored wetlands would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Wetlands

Impact 3.4-3: Would the proposed project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The proposed project would not 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. Potential impacts would be less than significant.

Construction

The proposed Phase 3 recycled water pipeline will be installed along the 62nd Avenue bridge, across the CVSC. The pipeline would be installed either on the bridge or directionally drilled under the channel to avoid impacts to the channel itself, likely avoiding the need for permits from regulatory agencies. However, if open cut trenching is chosen to install the pipeline, the construction may result in a temporary direct effect on state or federally protected wetlands during equipment staging and/or from runoff generated by construction. If wetlands are unavoidable, CVWD would be legally required to obtain permits from USACE (CWA Section 404 permit), CDFW (Section 1602, Streambed Alteration Agreement) and/or RWQCB (CWA Section 401 permit), as needed, to ensure that the temporary minor impacts to aquatic resources are minimized. The terms of the permits will include impact minimization measures and may require habitat restoration to compensate for the temporary impacts. As a result, project impacts would be less than significant.

Operation

CVSC

Once constructed, the Phase 3 recycled water pipeline will be attached to the 62nd Avenue bridge and project operation will not influence state or federally protected wetlands. The proposed reclamation and reuse of all flow at WRP 4 is not expected to substantially reduce the flow within the CVSC downstream of the facility to the Salton Sea and the analysis of the potential effects of the reduction demonstrates that evapotranspiration requirements of the vegetation along the CVSC (within the BSA) under existing conditions is far less than the water available even after Phase 3 (DEIR Appendix HYDRO-1; ESA 2024). The proposed project operation will thus not result in the decline or loss of protected wetlands.

Salton Sea

The proposed project would reduce flows to the Salton Sea by up to 0.58 percent compared to current flows, which would add to the lowering elevation of the Salton Sea by 0.2 feet if other flow increases were not to occur. This lowering of the Sea's elevation would not reduce wetland habitat.

Riparian vegetation occurs along the receding shoreline of the Salton Sea where freshwater flows across the exposed lakebed. This wetland vegetation has expanded in areas of the exposed lakebed near freshwater flows that traverse the exposed playa to reach the highly saline Sea. These wetlands do not exist in the saline water. The lowering Sea level would not reduce freshwater wetlands, but more likely would result in increased freshwater wetlands where drainage channels meets the Sea. The proposed project's impacts to sensitive habitats would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Wildlife Corridors

Impact 3.4-4: Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Impacts would be less than significant.

Construction

The construction of the WRP 4 facilities and recycled water delivery pipelines may result in a minor impact to wildlife movement in the desert due to construction-generated noises and temporary lighting. However, construction activities would be temporary and would occur near developed areas including roadways and at the existing WRP 4 that do not support wildlife corridors. Wildlife movement would not be impeded. Pipeline construction would proceed along roadways and only affect construction areas for a few weeks. Furthermore, night-time construction would only be used on rare occasions if at all. Impacts to wildlife movement would be less than significant.

Operation

CVSC

Operation of the recycled water treatment and distribution system would not impact wildlife corridors. The reduction in flow would not reduce the use of the CVSC as a wildlife movement corridor compared with existing conditions. Therefore, impacts to wildlife corridors would be less than significant.

Salton Sea

The proposed project would reduce flows to the Salton Sea by up to 0.58 percent compared to current flows, which would add to the lowering elevation of the Salton Sea by 0.2 feet if other flow increases were not to occur. This lowering of the Sea's elevation would not impact wildlife corridors. Impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant

Local Policies and Ordinances

Impact 3.4-5: Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No impact would occur.

The proposed project does not conflict with local ordinances or policies. Therefore, no impact would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Habitat Conservation Plans

Impact 3.4-6: Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Potential impacts would be less than significant.

The BSA lies entirely within the boundary of the CVMSHCP and a portion of the CVSC, within the BSA, is situated partially within the Coachella Valley Stormwater Channel and Delta Conservation Area. The WRP 4 facility improvements are a covered activity in the Conservation Area (see activity (b) in Table 7-6 of the CVMSHCP). Additionally, the northern portion of the project area occurs within the CVMSHCP.

Construction

The construction of the WRP 4 facilities and the recycled water delivery pipelines will not occur within a conservation area; therefore, impacts to covered species and habitats would be considered less than significant.

Operation

CVSC

The project is a covered activity within the CVMSHCP, and therefore does not conflict with the adopted HCP. The proposed reclamation and reuse of all flow at WRP 4, during Phase 3 conditions, will not substantially reduce the flow within the portion of the CVSC downstream of the facility to the Salton Sea that occurs within the Coachella Valley Stormwater Channel and Delta Conservation Area. The analysis of the potential effects of the reduction in flow demonstrates that evapotranspiration requirements of the vegetation along the CVSC (within the BSA) under existing conditions is far less than what will remain within the channel under Phase 3 (final stage) of the project. The proposed project operation will thus not cause the decline or result in the loss of covered riparian/wetland habitat or covered species (See Appendix BIO-1). Impacts would be less than significant.

Salton Sea

Flow reductions expected during Phase 3 of the proposed project are similar to those estimated in the SSMP and Long-Range Plan. Therefore, the proposed project would be consistent with the SSMP habitat restoration efforts currently underway. Impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.4-7: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to biological resources?

Phase 1, 2, and 3

Construction of the treatment facilities and conveyance pipelines would occur over a 20-year period. Future development in the vicinity of the proposed project near the community of Thermal will contribute to the cumulative effects on biological resources in the area. However, much of the area in the immediate vicinity of the proposed project facilities is planned to be maintained as agricultural land. Impacts to local biological resources are expected to be minor. The proposed project is required to comply with Mitigation Measures BIO-1 through BIO-5 to mitigate impacts to special-status species. Therefore, to the extent impacts on biological 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.

The reduction of flow in the CVSC compared with existing conditions would not result in a significant depth or width reduction in the CVSC. The proposed project would not significantly reduce habitat quality or availability in the CVSC. Cumulative flow contributions to the CVSC would continue to maintain aquatic and wetland habitats in the channel.

Cumulative water inflows to the Salton Sea are projected to decrease in the future as a result of Colorado River water conservation efforts, changes in river flows from Mexico, thermal power and lithium water demands, climate change, and water recycling projects. Recognizing the anticipated impacts to the Salton Sea elevation and salinity caused by the cumulative inflow reductions, the State of California passed the Salton Sea Restoration Act (California Fish & Game Code section 2942), which requires the Secretary of CNRA to lead the state's efforts to restore the Salton Sea. The SSMP and Long-Range Plan prepared to comply with the Act and subsequent WRO 2017-134 were developed to respond to the foreseeable cumulative condition of a smaller Salton Sea including anticipated cumulative inflow reductions associated with all sources, including the proposed project. DWR and CDFW are implementing habitat restoration and dust suppression projects through the SSMP and Long-Range Plan in anticipation of future cumulative flow reductions, consistent with direction from WRO 2017-134. The projects are designed to reduce cumulative impacts anticipated from a smaller Sea that will be saltier and with a lower elevation. The proposed project's contribution to the cumulative decline in elevation and increased salinity is consistent with future estimates in the SSMP being addressed through implementation of the proposed habitat restoration and dust suppression projects.

Furthermore, the proposed project is an integral component of the 2022 WMP, which will implement several projects that together are expected to increase inflows to the Salton Sea from the Coachella Valley. The 2022 WMP identified water management actions to increase groundwater recharge and reduce groundwater extractions that are required to be implemented to achieve compliance with SGMA. As demonstrated in Appendix HYDRO-2, implementation of the 2022 WMP water management actions,

which include the proposed project, are expected to increase inflows to the Salton Sea from the Coachella Valley compared with existing conditions. Since these water management actions are currently being implemented by the Indio Subbasin GSAs to comply with SGMA, increased flows to the Salton Sea from the Coachella Valley represent a reasonably foreseeable future condition. As a result, the proposed project's contribution to cumulative impacts would not be considerable.

As the Salton Sea recedes, special status species will continue to use the wetland and riparian habitats provided by freshwater flows within agricultural drains and freshwater shoreline pools along the edge of the Sea as under existing conditions. As a terminal water body, the Salton Sea's increasing salinity will continue with or without the proposed project. The proposed project's contribution to the increasing salinity and decreasing elevation would be minor and would not result in significant effects to biological resources including sensitive species or their habitats greater than under the No Project condition. Furthermore, the increasing cumulative inflows from the Coachella Valley will offset the proposed project's effects. The proposed project would not contribute significantly to cumulative effects on special status species or their habitats within the BSA or within the Salton Sea. Cumulative impacts are expected to be less than significant.

Mitigation Measures

Mitigation Measures BIO-1 through BIO-5

Significance Determination

Less than Significant Impact With Mitigation

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3.5 Cultural Resources

This section addresses the potential impacts related to cultural resources associated with implementation of the proposed project. This section includes: a description of existing cultural resources on the project site and in the adjacent area in the Coachella Valley; a summary of applicable regulations related to cultural resources; and an evaluation of the potential for the proposed project to result in environmental impacts related to cultural resources on the project site. In addition, an evaluation of the potential cumulative impacts is provided. Unless otherwise specifically cited, the setting information and analysis in this section is based on the *Water Reclamation Plant No. 4 Non-Potable Water Improvements Project, Cultural Resources Assessment*, a confidential report prepared by ESA and dated July 2024.

3.5.1 Regulatory Framework

Federal

Section 106 of the National Historic Preservation Act

The principal federal law addressing historic properties is Section 106 of the National Historic Preservation Act (NHPA) (54 United States Code of Laws [USC] 300101 et seq.) and its implementing regulations (36 CFR Part 800). Section 106 requires a federal agency with jurisdiction over a proposed federal action (referred to as an “undertaking” under the NHPA) to take into account the effects of the undertaking on historic properties, and to provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on the undertaking.

The term “historic properties” refers to “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register [of Historic Places]” (36 CFR Part 800.16(l)(1)). The implementing regulations (36 CFR Part 800) describe the process for identifying and evaluating historic properties, for assessing the potential adverse effects of federal undertakings on historic properties, and seeking to develop measures to avoid, minimize, or mitigate adverse effects. The Section 106 process does not require the preservation of historic properties; instead, it is a procedural requirement mandating that federal agencies take into account effects to historic properties from an undertaking prior to approval.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Officer (SHPO), federally-recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects to such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties. The agency also must provide an opportunity for public involvement (36 CFR Part 800.1(a)). Consultation with Indian tribes regarding issues related to Section 106 and other authorities (such as NEPA and Executive Order No. 13007) must recognize the government-to-government relationship between the Federal government and Indian tribes, as set forth in Executive Order 13175, 65 FR 87249 (Nov. 9, 2000), and Presidential Memorandum of Nov. 5, 2009.

National Register of Historic Places

The National Register of Historic Places (NRHP) was established by the NHPA as “an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation’s

historic resources and to indicate what properties should be considered for protection from destruction or impairment” (36 CFR 60.2) (U.S. Department of the Interior, 2002). The NRHP recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites, historic-period archaeological sites, traditional cultural properties, and cultural landscapes. As noted above, a resource that is listed in or eligible for listing in the NRHP is considered “historic property” under Section 106 of the NHPA.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior 2002):

- A. Are associated with events that have made a significant contribution to the broad patterns of our history;
- B. Are associated with the lives of persons significant in our past;
- C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the criteria of significance, a property must have integrity. Integrity is defined as “the ability of a property to convey its significance” (U.S. Department of the Interior 2002). The NRHP recognizes seven qualities that, in various combinations, define integrity. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

Ordinarily religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered eligible for the NRHP unless they meet one of the Criteria Considerations (A-G), in addition to meeting at least one of the four significance criteria and possessing integrity (U.S. Department of the Interior 2002).

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) and as defined in PRC Sections 5020.1(j) or 5024.1, 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 (CRHR); (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 a 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 CRHR; 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 CRHR 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 CRHR 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 CRHR are based upon NRHP criteria (PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the CRHR, including California properties formally determined eligible for, or listed in, the NRHP.

To be eligible for the CRHR, 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 CRHR 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 NRHP, but it may still be eligible for listing in the CRHR.

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

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

Other resources that may be nominated to the CRHR include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the NRHP, the CRHR, 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 an 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 California Native American Heritage Commission (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.

Local

The County of Riverside's General Plan, Multipurpose Open Space Element, contains the following cultural resources policies relevant to the proposed project:

Policy OS 19.1: Cultural resources (both prehistoric and historic) are a valued part of the history of the County of Riverside.

Policy OS 19.2: The County of Riverside shall establish a cultural resources program in consultation with Tribes and the professional cultural resources consulting community. Such a program shall, at a minimum, address each of the following: application processing requirements; information database(s); confidentiality of site locations; content and review of technical studies; professional consultant qualifications and requirements; site monitoring; examples of preservation and mitigation

techniques and methods; and the descendant community consultation requirement of local state and federal law.

Policy OS 19.3: Review proposed development for the possibility of cultural resources and for compliance with the cultural resources program.

Policy OS 19.4: To the extent feasible, designate as open space and allocate resources and/or tax credits to prioritize the protection of cultural resources preserved in place or left in an undisturbed state.

Policy OS 19.5: Exercise sensitivity and respect for human remains from the prehistoric and historic time period and comply with all applicable laws concerning such remains.

3.5.2 Environmental Setting

CVWD prepared a Program Environmental Impact Report (PEIR) for the Sanitation Master Plan Update 2020 (SMP). As part of the SMP PEIR, a cultural resources assessment was conducted for the SMP Study Area (ECORP Consulting 2020). The proposed project tiers from the SMP PEIR; cultural resources setting information presented below is sourced in part from that programmatic study.

Precontact Setting

California's southeastern desert region has a long history of human occupation, with dates at the start of the early Holocene stretching back 12,000 years ago (Moratto 1984:96–97; Schaefer 1994:62; Sutton et al. 2007:233–237). Prehistory is most easily discussed chronologically, in terms of environmental change and recognized cultural developments. In the Colorado Desert region, the chronological framework includes the Paleo-Indian Period, the Archaic Period, and the Late Prehistoric Period. These time periods are discussed in more detail below.

Paleo-Indian Period (ca. 13,000-8,000 years before present [YBP])

Little is known of Paleo-Indian peoples in inland southern California and solid evidence for occupation in the Colorado Desert region during the Lake Pleistocene or Early Holocene is scarce (Schaefer and Laylander 2007:247). The cultural history of this period follows that of North America in general. Recent discoveries in the Americas have challenged the theory that the first Americans migrated from Siberia, following a route from the Bering Strait into Canada and the Northwest Coast sometime after the Wisconsin Ice Sheet receded (ca. 14,000 YBP), and before the Bering Land Bridge was submerged (ca. 12,000 YBP). Based on new research from the Pacific Rim, it has been proposed that modern humans settled islands of the eastern Pacific between 40,000 and 15,000 years ago. Evidence of coastal migration has also come from sites on islands off Alta and Baja California. As a result, these sites are contemporary with Clovis and Folsom points found in North America's interior regions. All of these new findings have made the coastal migration theory gain credibility in recent times (Erlandson et al. 2007).

The timing, manner, and location of this crossing are a matter of debate among archaeologists, but the initial migration probably occurred as the Laurentide Ice Sheet melted along the Alaskan Coast and interior Yukon. The earliest radiocarbon dates from the Paleo-Indian Period in North America come from the Arlington Springs Woman site on Santa Rosa Island. These human remains date to approximately 13,000 YBP (Johnson et al. 2002). Other early Paleo-Indian sites include the Monte Verde Creek site in Chile (Meltzer, et al. 1997) and the controversial Meadowcroft Rockshelter in Pennsylvania. Both sites

have early levels dated roughly at 12,000 YBP. Lifeways during the Paleo-Indian Period was characterized by highly mobile hunting and gathering. Prey included megafauna such as mammoth and technology included a distinctive flaked stone toolkit that has been identified across much of North America and into Central America. They likely used some plant foods, but the Paleo-Indian toolkit recovered archaeologically does not include many tools that can be identified as designed specifically for plant processing.

The megafauna that appear to have been the focus of Paleo-Indian life went extinct during a warming trend that began approximately 10,000 years ago, and both the extinction and climatic change (which included warmer temperatures in desert valleys and reduced precipitation in mountain areas) were factors in widespread cultural change. Subsistence and social practices continued to be organized around hunting and gathering, but the resource base was expanded to include a wider range of plant and game resources. Technological traditions also became more localized and included tools specifically for the processing of plants and other materials. This constellation of characteristics has been given the name “Archaic” and it was the most enduring of cultural adaptations to the North American environment.

Archaic Period (ca. 8,000-1,200 YBP)

Around 8,000 YBP, subsistence patterns in southern California shifted along with the changing environment, and greater emphasis was placed on plant resources and smaller animal species. Subsistence patterns became more diversified, focusing on gathering in the interior and maritime resources in the coastal regions (Erlandson 2007:4). Archaeological evidence from this time period in the Colorado Desert continues to be sparse but there have been several occurrences of projectile points similar to the forms that are characteristic of the Pinto and Elko complexes. During the Pinto complex (8,000 to 4000 YBP), occupation sites within the Colorado Desert were most likely temporary, seasonal camps of small, highly mobile groups (Schaefer 1994:64; Warren 1984:414). There is greater evidence for the Pinto Complex recovered from the Mojave Desert, with the artifact assemblages for this period characterized by Pinto series projectile points and shaped scrapers, as well as slab metates and manos. The presence of ground stone is the greatest difference from the Paleoindian period. Recent dates indicate that intensive plant processing began as early as ca. 7000 cal. B.C. within the Mojave Desert region, and faunal remains suggest an increase in the reliance on small animals and a decrease in the reliance in artiodactyl species such as pronghorn and deer (Sutton et al. 2007:238).

Recent excavations within Coachella Valley indicate that occupation of the Colorado Desert was limited to temporary specialized camps around the Holocene Lake Cahuilla (Love and Dahdul 2002:81). These shoreline sites contain the remains of fish, shellfish, and waterfowl. Sites farther away from the shoreline suggest a permanent or semi-permanent occupation (CA-RIV-2936), with the artifact assemblage consisting of multiple occupation layers of hearths and milling implements, as well as Coso obsidian and shell beads from the Gulf of California. The obsidian and shell beads indicate exchange networks during this period. The overall reduction of size in projectile points indicates a shift from the atlatl and dart to the bow and arrow, the use of which continued into the Late Prehistoric period.

Late Prehistoric Period (ca. 1,200 YBP-A.D. 1769)

The introduction of pottery and the bow and arrow to the Coachella Valley region occurred around AD 1000 and denotes the transition between the Archaic and Late Prehistoric Period. The use of pottery as a storage and cooking vessel demonstrates the degree of cultural change that had taken place from the

Archaic Period that based its subsistence practice on large game hunting to a sedentary lifestyle predicated on the gathering and processing of plant matter and seeds as exhibited in the Late Prehistoric Period. Other indicators of the Late Prehistoric period are Cottonwood Triangular and Desert Side-Notched projectile points, a shift from extended inhumations to cremations, networks of trail systems with pot-drops and trailside shrines, and the introduction of small-scale agriculture.

The networks of trails are evidence of the importance of trade, travel, and exchange throughout the southern California deserts. Trail systems with the Colorado Desert are associated with trailside shrines, ceramic pot-drops, and rock art (Schaefer 1994:66). Pot-drops near springs and tanks were essential for water access during dry seasons or long distance travel across the desert (Schaefer and Laylander 2007:254–255). Rock art complexes near water sources and pot-drops may indicate a spiritual value placed on these water sources, and mark some trails as representing routes between sacred places. The trail networks facilitated the trade of items such as shell beads and steatite from the Pacific Coast and Gulf of California, wonderstone from Rainbow Rock, and obsidian from Obsidian Butte at the southern end of the Salton Sea; these networks appear to have extended as far as the Great Basin and American Southwest.

Lake Cahuilla (now Salton Sea) was a freshwater lake periodically created throughout the Holocene Epoch by means of the Colorado River. The lake supported freshwater fish, shellfish, migratory aquatic birds, and a riparian flora and fauna when it was full of water making it attractive to prehistoric inhabitants of the Colorado Desert. Recent archaeological data suggests that there was substantial variability in subsistence and settlement patterns along different segments of the lake's shoreline and have challenged earlier theories (Schaefer and Laylander 2007:250). Near the end of the Late Prehistoric period and into the Historic period, permanent villages were established on the valley floor and were supported by large walk-in wells and extensive mesquite groves.

Existing Conditions

EIC Records Search

A records search for the proposed project was conducted on December 6, 2023 through the California Historical Resources Information System (CHRIS) Eastern Information Center (EIC), housed at the University of California, Riverside. The records search included a review of all recorded cultural resources within a 0.5-mile radius of the proposed project as well as a review of cultural resource reports on file. A total of 48 cultural resources studies have been conducted within a 0.5-mile radius of the proposed project. Of the 48 studies, approximately 15 have been conducted within the proposed project.

A total of 25 cultural resources have been previously recorded within 0.5-mile radius of the proposed project. Of the 25 resources, one is a precontact isolate (P-33-24737); five are historic-period isolates (P-33-24728, -24729, -24735, -24736, and -24738); and 19 are historic architectural resources (P-33-9498, -17259, -19867, -20750, -20844, -20845, -20904, -20907, -20908, -20922, -20923, -20927, -20928, -24102, -24103, -24104, -24105, -24263, and -29131). Of the 25 resources, 10 are located within the proposed project areas and one is located immediately adjacent. More specifically, one resource (P-33-20750) is located within Phase 1 pipeline; five resources (P-33-20750, -20922, -24102, 24105, -24728) are located within Phase 2 pipelines; and six resources (P-33-9498, -20845, -20908, -20922, -20923, and -24263) are located within Phase 3 pipelines. The 10 resources within the proposed project consist of

historic architectural resources (Southern Pacific Railroad [SPRR]/ Union Pacific Railroad [UPRR], asphalt/concrete paved/dirt access roads, and Durbrow drain) and a precontact isolate. One of the resources (P-33-20922) within the proposed project overlap all three phases of the project. No resources are located within the WRP 4; however, one historic built environment resource (P-33-17259/ Coachella Valley Stormwater Channel) is located immediately adjacent.

Of the 10 resources within the proposed project, six (P-33-9498, -20845, -20908, -20922, -20923, and -24728) do not appear to have been previously evaluated; while the remaining four resources (P-33-20750, -24102, -24105, and -24263) were found ineligible for the NRHP/California Register of Historic Resources (CRHR), or local designation through survey evaluation (6Z). The resource located immediately adjacent to the proposed project (P-33-17259) was found ineligible for the NRHP/CRHR, or local designation through survey evaluation (6Z).

Sacred Lands File Search

A Sacred Lands File (SLF) search was requested from the NAHC on January 8, 2024. The SLF search results prepared by the NAHC on February 5, 2024 indicated that the SLF results were positive. The response letter did not provide details on resources within the proposed project, but suggested contacting the Augustine Band of Cahuilla Indians, the Cabazon Band of Mission Indians, and the Torres-Martinez Desert Cahuilla Indians. The NAHC also provided a list of other Native American tribes to contact as they may have knowledge of cultural resources within the project site which are included as Table 3 in the *Water Reclamation Plant No. 4 Non-Potable Water Improvements Project, Cultural Resources Assessment (Confidential)*. (ESA 2024)

Geoarchaeological Review

The proposed project is situated within the Coachella Valley in the Salton Trough, a broad basin formed by tectonic activity, and which is filled with late Pliocene-aged (5.33 mya to 2.59 million years ago [mya]) to Quaternary-aged [2.59 mya to present] terrestrial and shallow marine sediments (Babcock 1974). The proposed project is located in the central portion of the basin within the former extent of Lake Cahuilla, a large freshwater lake that periodically filled and emptied throughout the Holocene.

Geological maps depict sediments underlying the proposed project as containing young alluvial valley deposits (Qya), young alluvial fan deposits (Qyf), and young alluvial wash deposits (Qw) (Bedrossian et al. 2012). Soil types within the proposed project are dominated by Gilman-series fine sandy loam, loamy fine sand, and silt loam (53% by area), followed by Indio fine to very fine sandy loam (41%), Myoma fine sand (3%), Salton silty clay loam (2%), and minor amounts of other soil types (NRCS 2009, 2015a, 2015b, 2015c). Gilman soils are very deep, well drained soils that formed in stratified stream alluvium, while Indio soils are moderately well drained and formed on alluvial fans, lacustrine basins and flood plains. Both soil types are immature, exhibiting weak soil development and an Ap horizon less than 12 inches thick overlying a C horizon of parent material. The Ap horizon represents soil that has been disturbed by plowing or tilling, indicating that the proposed project area has been impacted by historic and modern agricultural practices.

Based on geological, geomorphological, and soils data, the proposed project is assumed to contain alluvial sedimentary deposits dating to the late Pleistocene and Holocene (11,700 years ago to present) – the period for which there is widely accepted evidence for human habitation of Southern California. The

potential for buried archaeological deposits is predicated on environmental factors such as proximity to freshwater sources, landform type, and associated soils. Access to fresh water is critical to human survival and, accordingly, archaeological sites tend to occur more frequently near water sources. Numerous prehistoric archaeological sites have been identified along the historic shorelines associated with former Lake Cahuilla, but the proposed project is located in the central part of the basin that was submerged during those time periods when the lake was in existence. As such, the proposed project would only have been available for human occupation and resource procurement during limited time periods, reducing the potential for the accumulation of archaeological deposits in significant concentrations with the potential for preservation.

The proposed project is on an active alluvial fan with little landform stability, as documented by the predominance of immature soils with little soil development. These factors indicate that soils within the proposed project are young and do not present an ideal environment for the accumulation and preservation of archaeological deposits. Further, historic and modern agricultural practices have disturbed the uppermost soil profile where archaeological materials would most likely be encountered. The proposed project is located in the central portion of the valley where sedimentation rates are high, so there is the potential that geomorphic processes have buried and preserved former land surfaces (paleosols) with the potential to contain archaeological deposits. High sedimentation rates also preclude landform stability, however, as new sediment is continually deposited and develop complex, transient landforms. Given all of these factors, the proposed project has a low potential to contain buried, intact, significant prehistoric cultural resources.

In the historic period the proposed project has been used for ranching and agriculture, which have a limited potential to produce subsurface artifact accumulations such as hollow-filled pit features and areal trash scatters. These accumulations, if present, would have been shallowly buried and disturbed by historic and modern agricultural practices and likely visible in part on the modern land surface. Given the geomorphic and historic context, along with negative findings observed during the surface pedestrian survey, the proposed project has a low potential to contain intact, significant historic-period cultural resources.

Cultural Resources Survey

Methods

Cultural resources surveys for the proposed project (WRP 4, Phase 1, 2, and 3) were conducted on February 13, 14, and April 9, 2024 by ESA. An archaeological resources survey was conducted for all accessible portions of the WRP 4 (only where tertiary treatment upgrades would take place) with visible ground surface, which were surveyed in a systematic manner with transect intervals spaced no greater than 15 meters (approximately 50 feet) apart. Areas within the WRP 4 that were heavily vegetated were subject to an opportunistic survey to identify any areas of visible ground surface. The Phase 1, 2, and 3 pipelines located within existing street rights-of-ways were subject to a reconnaissance-level (windshield) survey.

3.5.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to cultural resources. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.
- Result in cumulatively considerable impacts to cultural resources.

Methodology

The analysis of impacts to archaeological resources is based on the confidential *Water Reclamation Plant No. 4 Non-Potable Water Improvements Project, Cultural Resources Assessment* (ESA 2024) prepared for the proposed project which includes: (1) a cultural resource records search conducted at the CHRIS-EIC to review recorded cultural resources within a 0.50-mile radius of proposed project, as well as a review of previous studies; (2) a SLF search through the NAHC; (3) a geoarchaeological review; (4) and a cultural resources survey.

Impact Analysis

Historical Resources

Impact 3.5-1: Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Phases 1, 2, and 3

The proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. In the event that unknown resources are discovered during construction of improvements, **Mitigation Measures CUL-1 through CUL-4** would be required to mitigate any potential impacts. Potential impacts would be less than significant with mitigation.

Construction

Tertiary Treatment Facilities and Pipelines

As previously mentioned, a total of 25 cultural resources have been previously recorded within 0.5-mile radius of the proposed project. Of the 25 resources, 10 are located within the proposed project site and consist of historic architectural resources (SPRR/UPRR, asphalt/concrete paved/dirt access roads, and Durbrow drain) and a precontact isolate. More specifically, one resource (P-33-20750) is located within the Phase 1 pipeline route; five resources (P-33-20750, -20922, -24102, -24105, -24728) are located within the Phase 2 pipeline route; and six resources (P-33-9498, -20845, -20908, -20922, -20923, and -24263) are located within the Phase 3 pipeline route. One of the resources (P-33-20922) overlaps all three project phases. No resources are located within the WRP 4; however, one historic built environment

resource (P-33-17259/ Coachella Valley Stormwater Channel) is located immediately adjacent. All of the historic architectural resources within or immediately adjacent to the proposed project were previously evaluated and recommended not eligible for listing in the CRHR/NRHP. The historic-period isolate (P-33-24728) appears to not have been evaluated; however, as isolates are not eligible, this isolate is not eligible under CRHR/NRHP. Therefore, no further work or mitigation is recommended for the resources within Phases 1, 2, or 3 or immediately adjacent to the proposed project. Additionally, the historic and precontact geoarchaeological review indicates that the proposed project has a low potential to contain buried, intact, significant historic-period and precontact cultural resources. In the event that unknown resources are discovered during construction of improvements, **Mitigation Measures CUL-1 through CUL-4** would be required to mitigate any potential. With implementation of these measures, impacts would be reduced to a less than significant level.

Operation

Tertiary Treatment Facilities and Pipelines

Once the tertiary treatment facilities and pipelines are constructed, no additional ground disturbance activities would take place. Therefore, there would be no operation-related impacts to historic architectural or archeological resources qualifying as historical resources under CEQA.

Mitigation Measures

Mitigation Measure CUL-1: Cultural Resources Sensitivity Training. Prior to the start of ground-disturbing activities, a Qualified Archaeologist meeting the Secretary of the Interior Standards or their designee shall conduct construction worker archaeological resources sensitivity training for all construction personnel. Construction personnel shall be informed on how to identify the types of precontact and historic archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources, and safety precautions to be taken when working with archaeological monitors. CVWD shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.

Mitigation Measure CUL-2: Unanticipated Find Protocol. If historic-period or precontact archaeological resources are unearthed during construction, all work must halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for pre-contact and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. Work may continue outside of the buffer area.

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, they shall immediately notify CVWD and applicable landowner and follow Mitigation Measures CUL-3 and CUL-4, as applicable.

Mitigation Measure CUL-3: Treatment Plan Development. If a resource is determined by the qualified Archaeologist to constitute a "historical resource" pursuant to CEQA Guidelines Section 15064.5(a) or a "unique archaeological resource" pursuant to Public Resources Code Section 21083.2(g), the Qualified Archaeologist shall coordinate with the CVWD to develop a formal treatment plan that would serve to reduce impacts to the resources.

The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources.

If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis.

Any archaeological material collected shall be curated at a public, non-profit institution with a research interest in the materials, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a local school or historical society in the area for educational purposes.

Mitigation Measure CUL-4: Final Monitoring Report. The qualified Archaeologist shall prepare a technical report that 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. Appropriate California Department of Parks and Recreation Site Forms (Site Forms) shall also be prepared and provided in an appendix to the report. The technical report shall be submitted to the CVWD and the Eastern Information Center.

Significance Determination

Less than Significant Impact with Mitigation

Archaeological Resources

Impact 3.5-2: Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Phases 1, 2, 3

The proposed project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. In the event that unknown or unrecorded archaeological resources qualifying as unique archaeological resources are encountered during construction of the proposed project, Mitigation Measures CUL-1 through CUL-4 would be required to assess and mitigate any resources found. Potential impacts would be less than significant with mitigation.

Construction

Tertiary Treatment Facilities and Pipelines

As noted in the above discussion for Impact 3.5-1, a total of 25 cultural resources have been previously recorded within 0.5-mile radius of the proposed project. Of the 25 resources, one historic-period isolate consisting of a granitic mano was previously recorded as immediately adjacent to Phase 2. However, this resource was not found/relocated during the pedestrian survey. Additionally, the historic and precontact geoarchaeological review indicates that the proposed project has a low potential to contain buried, intact, significant historic-period and precontact cultural resources. Nevertheless, in the event that unknown or unrecorded archaeological resources qualifying as unique archaeological resources are encountered during construction of the proposed project, Mitigation Measures CUL-1 through CUL-4 are required in order to reduce potential impacts to less than significant levels.

Operation

Tertiary Treatment Facilities and Pipelines

Once the tertiary treatment facilities and pipelines are constructed, no additional ground disturbance activities would take place. Therefore, there would be no operation-related impacts to archeological resources qualifying as unique archaeological resources under CEQA.

Mitigation Measures

Implement Mitigation Measures CUL-1 through CUL-4

Significance Determination

Less than Significant Impact with Mitigation

Human Remains

Impact 3.5-3: Would the proposed project disturb any human remains, including those interred outside of dedicated cemeteries?

Phases 1, 2, and 3

Since the proposed project would involve ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb previously unknown human remains. **Mitigation Measure CUL-5** would be implemented to reduce potential construction-related impacts to unknown human remains. Potential impacts would be less than significant with mitigation.

Construction

Tertiary Treatment Facilities and Pipelines

No formal or informal cemeteries or other burial places are known to exist within the proposed project. Since the proposed project would involve ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb previously unknown human remains. Mitigation Measure CUL-5 would be implemented to reduce potential construction-related impacts to unknown human remains to less than significant levels.

Operation

Tertiary Treatment Facilities and Pipelines

Once the tertiary treatment facilities and pipelines are constructed, no additional ground disturbance activities would take place. Therefore, there would be no operation-related impacts to human remains under CEQA.

Mitigation Measures

Mitigation Measure CUL-5: Human Remains. If the find includes human remains, or remains that are potentially human, the archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the appropriate County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the

landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Significance Determination

Less than Significant Impact with Mitigation

Cumulative Impacts

Impact 3.5-4: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to cultural resources?

Phase 1, 2, and 3

Future residential development in the vicinity of the proposed project would take place in areas east of the Jacqueline Cochran Regional Airport in the community of Thermal. The areas in the immediate vicinity of the proposed project are also planned to be maintained as agricultural land. Any projects constructed or operated within the proposed project over the 20 year implementation timeframe would require excavation that could potentially expose or damage potentially unknown or unrecorded archaeological resources. Nevertheless, in association with CEQA review, 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 if encountered and preserve their contributions, if significant, 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-5 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

Implement Mitigation Measures CUL-1 through CUL-5

Significance Determination

Less than Significant Impact with Mitigation

3.5.4 References

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3.6 Energy

Potential impacts related to energy associated with implementation of the proposed project are analyzed in this section. This section also includes: a description of existing energy supplies in the region; a summary of applicable regulations related to energy; and an evaluation of the potential for the proposed project to result in environmental impacts related to energy resources. In addition, an evaluation of the potential cumulative impacts is provided.

3.6.1 Regulatory Framework

Federal

Energy Policy Act of 1992

The Energy Policy Act set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. It established regulations requiring certain federal, state, and alternative fuel provider fleets to build an inventory of alternative fuel vehicles. It was amended several times in the Energy Conservation and Reauthorization Act of 1998 and in 2005 via the Energy Policy Act in 2005, which emphasized alternative fuel use and infrastructure development.

Energy Policy Act of 2005

The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy. The Renewable Fuel Standard (RFS) program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States.

Energy Independence and Security Act of 2007

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

- Increasing the supply of alternative fuel sources by setting mandatory 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 United States Environmental Protection Agency (USEPA) and the National Highway Traffic Safety Administration (NHTSA) actions described above (refer to United States Department of Transportation, United States Department of Energy, and United States Environmental Protection Agency) (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.”¹

United States Department of Transportation, United States Department of Energy, and United States Environmental Protection Agency

On the federal level, the United States Department of Transportation (USDOT), United States Department of Energy (USDOE), and USEPA are three agencies with substantial influence over energy policies related to transportation fuels consumption. Generally, federal agencies influence transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks through funding energy-related research and development projects, and through funding for transportation infrastructure projects.

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) Standards (49 CFR Parts 531 and 533) reduce energy consumption by increasing the fuel economy of cars and light trucks. The NHTSA and USEPA jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the “maximum feasible level” with consideration given for (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy. When these standards are raised, automakers respond by creating a more fuel-efficient fleet. Details regarding fuel efficiency standards for passenger cars and light-duty vehicles and for heavy-duty vehicles are provided in Section 3.3, *Air Quality and Greenhouse Gas Emissions*.

State

Renewables Portfolio Standard

The State has adopted regulations to increase the proportion of electricity from renewable sources. In 2008, Executive Order S-14-08 expanded the State’s Renewable Portfolio Standard (RPS) goal to 33 percent renewable power by 2020. In 2009, Executive Order S-21-09 directed California Air Resources Board (CARB) (under its Assembly Bill [AB] 32 authority) to enact regulations to help the State meet the 2020 goal of 33 percent renewable energy. The 33 percent by 2020 RPS goal was codified with the passage of Senate Bill (SB) X1-2. This new RPS applied to all electricity retailers in the state, including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators. SB 350 (Chapter 547, Statutes of 2015) further increased the RPS to 50 percent by 2030, including interim targets of 40 percent by 2024 and 45 percent by 2027. In 2018, SB 100 further increased California’s RPS and requires retail sellers and local POUs to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030; and requires that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

The California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) jointly implement the RPS program. The CPUC’s responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility’s

¹ 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.

renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.

Senate Bill 1389

SB 1389 (Public Resources Code Sections 25300–25323; SB 1389) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state’s electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state’s economy; and protect public health and safety (Public Resources Code Section 25301[a]). The Integrated Energy Policy Report, the latest published report from CEC, provides the results of the CEC’s assessments related to energy sector trends, building decarbonization and energy efficiency, zero-emission vehicles, energy equity, climate change adaptation, electricity reliability in Southern California, natural gas assessment, and electricity, natural gas, and transportation energy demand forecasts.

California Assembly Bill 1493 (AB 1493, Pavley)

In response to the transportation sector’s large share of California’s CO₂ emissions, AB 1493 (commonly referred to as the Pavley regulations), enacted on July 22, 2002, requires CARB to set GHG emission standards for new passenger vehicles, light duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009-2016 and Phase II established standards for model years 2017-2025 (CARB 2023a; USEPA 2012). As discussed above, in September 2019, the USEPA published the SAFE Vehicles Rule in the federal register (Federal Register, Vol. 84, No. 188, Friday, September 27, 2019, Rules and Regulations, 51310-51363) that maintains the vehicle miles per gallon standards applicable in model year 2020 for model years 2021 through 2026. On January 20, 2021, President Biden issued Executive Order 13990 “Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis” directing USEPA to consider whether to propose suspending, revising, or rescinding the standards previously revised under the SAFE Vehicles Rule for Model Years 2021–2026. In February 2022, 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 establish 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).

California Health and Safety Code (HSC), Division 25.5/California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted 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. Under HSC Division 25.5, CARB has the primary responsibility for reducing the State’s GHG emissions; however, AB 32 also tasked the CEC and the CPUC with providing information, analysis, and recommendations to CARB regarding strategies to reduce GHG emissions in the energy sector.

In 2016, the California State Legislature adopted SB 32 and its companion bill AB 197; both were signed by Governor Brown. SB 32 and AB 197 amend HSC Division 25.5 and establish a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and include provisions to ensure that the benefits of state climate policies reach into disadvantaged communities.

Senate Bill 350

SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 is the implementation of some of the goals of Executive Order B-30-15. Building off AB 32, SB 350 established California's 2030 GHG reduction target of 40 percent below 1990 levels. To achieve this goal, SB 350 set ambitious 2030 targets for energy efficiency and renewable electricity, among other actions aimed at reducing GHG emissions. SB 350 increased California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030 prior to the current goals set by SB 100. In addition, SB 350 requires the State to double statewide energy efficiency savings in electricity and natural gas end uses by 2030.

California Air Resources Board

Advanced Clean Car Program

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations (CARB 2017). The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot and GHG emissions. This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and the Zero-Emissions Vehicle (ZEV) regulations to require manufacturers to produce an increasing number of pure ZEV's (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025.

The primary mechanism for achieving the ZEV target for passenger cars and light trucks is CARB's Advanced Clean Cars II (ACC II) Program. The ACC II regulations will focus on post-2025 model year light-duty vehicles, as requirements are already in place for new vehicles through the 2025 model year.

Advanced Clean Trucks Program

The Advanced Clean Trucks (ACT) regulations were approved on June 25, 2020, and require that manufacturers sell zero-emissions or near-zero-emissions trucks as an increasing percentage of their annual California sales beginning in 2024. The goal of this proposed strategy is to achieve nitrogen oxide (NOx) and GHG emission reductions through advanced clean technology, and to increase the penetration of the first wave of zero-emissions heavy-duty technology into applications that are well suited to its use. According to CARB, "Promoting the development and use of advanced clean trucks will help CARB achieve its emission reduction strategies as outlined in the State Implementation Plan (SIP), Sustainable Freight Action Plan, SB 350, and AB 32" (CARB 2023b)

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13 California Code of Regulations [CCR] Section 2485 and Title 17 CCR Section 93115). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds

that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles.

Because off-road vehicles that are used in construction and other related industries can last 30 years or longer, most of those that are in service today are still part of an older fleet that do not have emission controls. In 2007, CARB approved the “In-Use Off-Road Diesel Fueled Fleets Regulation” to reduce emissions from existing (in-use) off-road diesel vehicles that are used in construction and other industries. This regulation sets an anti-idling limit of five minutes for all off-road vehicles 25 horsepower and up. It also establishes emission rates targets for the off-road vehicles that decline over time to accelerate turnover to newer, cleaner engines and require exhaust retrofits to meet these targets. Revised in October 2016, the regulation enforced off-road restrictions on fleets adding vehicles with older tier engines and started enforcing beginning July 1, 2014. By each annual compliance deadline, a fleet must demonstrate that it has either met the fleet average target for that year or has completed the Best Available Control Technology requirements (BACT). Large fleets have compliance deadlines each year from 2014 through 2023, medium fleets each year from 2017 through 2023, and small fleets each year from 2019 through 2028. While the goal of this regulation is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from the use of more fuel-efficient engines.

Regional

Southern California Association of Governments

SB 375 requires each Metropolitan Planning Organization to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources. For the Southern California Association of Governments (SCAG) region, the 2020–2045 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS), adopted on September 3, 2020, is the current RTP/SCS and is an update to the 2016–2040 RTP/SCS.

The 2020–2045 RTP/SCS focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land use strategies in development of the SCAG region through horizon year 2045. The 2020–2045 RTP/SCS projects that the SCAG region will meet the GHG per capita reduction targets established for the SCAG region of eight percent by 2020 and 19 percent by 2035. Additionally, its implementation is projected to reduce vehicle miles traveled (VMT) per capita for the year 2045 by 4.1 percent compared to baseline conditions for the year. Rooted in the 2008 and 2012 RTP/SCS plans, the 2020–2045 RTP/SCS includes “Core Vision” that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by location housing, jobs, and transit closer together, and increasing investments in transit and complete streets.

South Coast Air Quality Management District

As discussed in Section 3.3, *Air Quality and Greenhouse Gas Emissions*, of this EIR, the South Coast Air Quality Management District (SCAQMD) is responsible for air quality planning in the South Coast Air Basin (where the project is located) and developing rules and regulations to bring the Air Basin into attainment of the ambient air quality standards. As part of its efforts to reduce local air pollution, SCAQMD has promoted a number of programs to promote energy conservation, low-carbon fuel technologies (natural gas vehicles; electric-hybrids, hydraulic-hybrids, and battery-electric vehicles), renewable energy, VMT reduction programs, and market incentive programs.

Local

CVWD Climate Action and Adaptation Plan

In September 2021, CVWD adopted a Climate Action and Adaptation Plan (CAAP) that identifies the measures, policies, and projects to reduce CVWD operational GHG emissions. The CAAP supports CVWD's efforts to identify projects to reduce GHG emissions and improve water supply resiliency in the face of climate change, as well as to obtain funding necessary to implement such projects. The CAAP includes measures for energy efficiency and renewable energy, which include the following project-related measures:

E-1: Utilize low-carbon and carbon-free electricity.

EE-1: Improve energy efficiency at CVWD facilities and buildings.

WC-1: Increase water conservation and local water supply.

CR-1: Reduce construction-related GHG emissions by CVWD through emissions reduction controls and/or equipment requirements.

County of Riverside Climate Action Plan Update, November 2019

The 2019 Climate Action Plan (CAP) Update refines the County's efforts to meet GHG reduction strategies, specifically for the years 2035 and 2050. The 2019 CAP Update builds upon the GHG reduction strategies in the 2015 CAP. The CAP Update summarizes various State and local policies that will contribute to reduced GHG emissions in Riverside County by the year 2020 and beyond. Some of these policies include updated building codes for energy efficiency, the low carbon fuel standard, Pavley (California Assembly Bill) vehicle emissions standards, and the Renewable Portfolio Standards for utility companies (County of Riverside 2019).

3.6.2 Environmental Setting

Electricity

Electricity, a consumptive utility, is a human-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, for distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid.

Energy capacity, or electrical power, is generally measured in watts (W) while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for 1 hour would be 100 Wh. If ten 100 W bulbs were on for 1 hour, the energy required would be 1,000 Wh or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts (MW), which is 1 W, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is 1 billion Wh.

Imperial Irrigation District (IID) is the electrical utility provider for the project area and provides electrical services to approximately 163,000 customers, and provides energy services covering 6,471 square miles, including Imperial County and portions of Riverside and San Diego Counties (IID 2024a). IID produces and purchases energy from a mix of conventional and renewable generating sources.

IID generates and facilitates the transfer of power from a variety of energy sources, including biomass, gas, and renewable resources, such as wind, solar, small hydropower (less than 30 MW), and geothermal sources. In 2023, the IID power system experienced a peak demand of 1,152 MW (IID 2024b). Approximately 38 percent of the IID 2022 electricity purchases were from renewable sources, which is higher than the approximate 36 percent statewide percentage of electricity purchases from renewable sources (CEC 2023a). The annual electricity sale to customers in 2023 was approximately 3,422 GWh (IID 2024b).

IID produces and purchases its energy from a mix of conventional and renewable generating sources.

Table 3.6-1 displays the electric power mix that was delivered to retail customers compared to the statewide power mix for 2022, the most recent year in which data is available.

**TABLE 3.6-1
IID ELECTRIC POWER MIX DELIVERED TO RETAIL CUSTOMERS IN 2022**

Energy Resource	IID Power Mix	Statewide Power Mix
Total Sales/Total Usage (million kilowatt-hours)	3,422^a	277,764
Eligible Renewable	37.7%	35.8%
Biomass & bio-waste ^a	7.8%	2.1%
Geothermal	11.3%	4.7%
Small hydroelectric	6.6%	1.1%
Solar	12.0%	17.0%
Wind	0.0%	10.8%
Coal	0.0%	2.1%
Large Hydroelectric	4.6%	9.2%
Natural Gas	35.3%	36.4%
Nuclear	3.4%	9.2%
Other	0.0%	0.1%
Unspecified sources of power^b	19.0%	7.1%
Total	100%	100%

a. IID Energy Sales from 2023, taken from IID's 2024 Integrated Resource Plan (IRP).

Source: CEC. 2023a. Annual Power Content Labels for 2022, Imperial

Irrigation District, <https://www.energy.ca.gov/filebrowser/download/6033>. Accessed July 2024.

Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs but relies upon out-of-state imports for nearly 90 percent of its natural gas supply (CEC 2023b). A majority of natural gas consumed in California is for electricity generation, along with the industrial, residential, and commercial sections (CEC 2023b). Among energy commodities consumed in California, natural gas accounts for approximately 31 percent of total energy consumption (CEC 2023c). Natural gas is measured in terms of both cubic feet (cf) or British thermal units (Btu).

Natural gas is used for cooking, space heating, water heating, electricity generation, and as an alternative transportation fuel. The proposed project is within the service area of Southern California Gas Company (SoCalGas), which is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.1 million customers in more than 500 communities encompassing approximately 24,000 square miles throughout central and southern California, from the City of Visalia to the Mexican border (SCG 2024).

SoCalGas receives gas supplies from several sedimentary basins in the western U.S. and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada as well as local California supplies (CGEU 2023). The traditional, southwestern U.S. sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport (CGEU 2023). Overall, SoCalGas predicts a decrease in natural gas demand in future years due to a decrease in per capita usage, energy efficiency policies, and the State's transition to renewable energy displacing fossil fuels including natural gas (CGEU 2023). The annual natural gas sale to customers in 2022 was approximately 897,170 million cf (CGEU 2023).²

Transportation Energy

According to the CEC, fossil gas accounted for approximately 31 percent of California's total energy consumption in 2021 based on a carbon dioxide equivalent basis (CEC 2023c). In 2022 (the most recent year for which data are available), California consumed 13.6 billion gallons of gasoline and 3.1 billion gallons of diesel fuel (CEC 2024b). Petroleum-based fuels account for 89 percent of California's transportation fuel use. California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT. Additionally, California is transitioning to zero-carbon, renewable sources of power while rapidly electrifying large segments of the economy. The CEC predicts that the demand for gasoline and transportation fossil fuels in general will continue to decline as the sales of electric vehicles increases. New zero-emission vehicle sales grew from less than 8 percent in 2020 to more than 25 percent in the third quarter of 2023 (CEC 2023d). According to fuel sales data from the CEC, fuel consumption in Riverside County was approximately 981 million gallons of gasoline and 353 million

² Daily natural gas usage in 2022 was 2,458 million cf; annual value derived by multiplying daily values by 365 days.

gallons of diesel fuel in 2022 (CEC 2023d).³ The State is now working on developing flexible strategies to reduce petroleum use. Accordingly, diesel and gasoline consumption in California has declined.

3.6.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to energy. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
- Result in cumulatively considerable impacts to energy.

Methodology

This section analyzes the proposed project's potential energy use to determine if it could have a significant impact. Energy use associated with construction activities includes fuel for construction equipment and vehicles, electricity for temporary construction trailers (including inside office lighting and electronic devices), and electricity for water conveyance and supply used to control fugitive dust. Of these energy uses, fuel consumption from construction-related heavy equipment and vehicles is the primary driver of energy consumption during proposed project construction because of the quantities of fuel needed to operate construction equipment and vehicles over the construction duration. The energy consumption for each facility type was determined using project and program-related details and factors obtained from California Emissions Estimator Model (CalEEMod) Version 2022.1.1 and the 2021 version of the Emission Factor Model (EMFAC2021). CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA) and other California air districts with the purpose to calculate construction and operational criteria pollutant emissions and greenhouse gas emissions from direct and indirect sources, as well as energy usage. EMFAC2021 is database developed and approved by the USEPA to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources.

There will not be any new vehicle trips associated with operation of the proposed project; thus, the primary source of energy consumption will be from indirect power generation to provide electricity for routine facility operations, rather than VMT. The proposed project operations would expand facilities at WRP 4, which would require additional energy. These factors for calculating proposed project operating energy consumption were developed based on information provided by the CVWD. This information included pump curve data, energy intensity data and lift station energy intensity data. Natural gas is unlikely to be combusted directly as part of the proposed project but assumed to be combusted at power plants to produce electricity consumed by the proposed project.

³ Diesel is adjusted to account for retail (49 percent) and non-retail (51 percent) diesel sales.

Impact Analysis

Energy Consumption

Impact 3.6-1: Would the proposed project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Phases 1, 2, and 3

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. Potential impacts would be less than significant.

Construction

Tertiary Treatment Facilities and Pipelines

During construction of the proposed project, energy would be consumed in the form of electricity for exterior uses, such as lights and water conveyance for dust control. Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the proposed project sites, construction workers traveling to and from the proposed project site and delivery and haul truck trips (e.g. hauling of demolition or excavation material to disposal facilities). Natural gas would not be used for construction purposes. **Table 3.6-2** and **Table 3.6-3** provide a summary of the annual average electricity, gasoline fuel, and diesel fuel estimated to be consumed during construction of Phases 1 and 2 of the project, respectively, which is further explained below.

**TABLE 3.6-2
PROJECT CONSTRUCTION ENERGY USAGE DURING PHASE 1**

Energy Type	Total Quantity During Construction
Electricity	
Electricity from Water (Dust Control)	19 MWh
Electricity from Temporary Construction Trailer	98 MWh
Total Electricity	117 MWh
Gasoline	
On-Road Construction Equipment	1,570 gallons
Total Gasoline	1,570 gallons
Diesel	
On-Road Construction Equipment	3,433 gallons
Off-Road Construction Equipment	75,252 gallons
Total Diesel	78,685 gallons

**TABLE 3.6-3
PROJECT CONSTRUCTION ENERGY USAGE DURING PHASE 2^A**

Energy Type	Total Quantity During Construction ^b
Electricity	
Electricity from Water (Dust Control)	19 MWh
Electricity from Temporary Construction Trailer	98 MWh
Total Electricity	117 MWh
Gasoline	
On-Road Construction Equipment	1,543 gallons
Total Gasoline	1,543 gallons
Diesel	
On-Road Construction Equipment	1,964 gallons
Off-Road Construction Equipment	90,993 gallons
Total Diesel	92,957 gallons

MWh = megawatt-hours

a. Detailed calculations are provided in Appendix AQ/GHG/ENERGY of this Draft EIR and are based on 10 months of construction in 2045.

b. Totals may not add up due to rounding of decimals.

Source: ESA 2024; CalEEMod 2022; EMFAC2021.

Under Phase 3, the WRP 4 would be upgraded in the future to support buildout conditions of up to 10 MGD. All facilities would be installed within the tertiary treatment upgrade boundary and would be similar in size and scope to the facility upgrades detailed above under Phase 1 and 2. Energy usage for Phases 1 and 2 would be representative of the maximum energy use that would occur under Phase 3, since Phase 3 is much less intensive than either Phases 1 or 2.

Electricity

Electricity would be supplied to the proposed project site by IID and would be obtained from the existing electrical lines that are connected to the proposed project site. Based on Table 3.6-2 and Table 3.6-3, the maximum annual construction electricity usage during both Phase 1 and 2 would be approximately 117 MWh. The proposed project electricity demand would be well within the supply and infrastructure capabilities of IID (which reported 3,422 GWh of total energy sales in 2023 fiscal year) (IID 2024b). The net increase in future electricity demand from the proposed project would represent approximately 3.4 percent of the IID network sales. Under peak conditions, the net increase of 117 MWh on an annual basis would generally be equivalent to a peak of 0.01 to 0.03 MW (assuming 8,760 hours or 4,380 hours per year of active electricity demand). In comparison to the IID power grid base peak load of 1,152 MW, the net increase would represent approximately 0.0009 to 0.003 percent of the IID base peak load conditions. Thus, the net increase in electricity would generally be served by existing infrastructure capacity. Phase 3 is not expected to utilize more than energy than either Phases 1 or 2 and would also be within IID's capacity.

The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. Electricity use

from construction would be short-term, limited to working hours, used for necessary construction-related activities, and small in comparison to overall IID annual demand. Therefore, the proposed project would not result in a wasteful, inefficient, and unnecessary consumption of energy associated with electricity used for construction, and impacts would be less than significant.

Natural Gas

As previously stated above, construction activities typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support proposed project construction activities; thus, there would be no expected demand generated by construction of the proposed project. Therefore, the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy associated with natural gas used for construction, and no impact would occur.

Transportation Energy

Table 3.6-2 and Table 3.6-3 report the estimated amount of petroleum-based transportation energy that could potentially be consumed during proposed project construction based on the conservative set of assumptions provided in Appendix AQ/GHG/ENERGY of this Draft EIR. Phase 3 would use approximately the same or less transportation fuel as Phases 1 and 2, since Phase 3 would be less intensive than Phases 1 and 2.

Construction of the proposed project would utilize fuel-efficient trucks and equipment consistent with federal and State regulations, such as fuel efficiency regulations in accordance with CARB's Pavley Phase I and II standards, the anti-idling regulation in accordance with CCR, Title 13, Section 2485, and fuel requirements in accordance with CCR, Title 17, Section 93115, as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. As such, the proposed project would comply with State measures to reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels. While these regulations are intended to reduce construction emissions, compliance with the anti-idling and emissions regulations discussed above would also result in fuel savings from the use of more fuel-efficient engines. Diversion of mixed construction and demolition debris would reduce truck trips to landfills, which are typically located some distance away from population centers, and increase the amount of waste recovered (e.g., recycled, reused) at material recovery facilities, thereby further reducing transportation fuel consumption.

Based on the analysis above, construction would utilize transportation fuel energy only for necessary onsite activities and to transport construction materials, excavated fill, and demolition debris to and from the proposed project site. As discussed above, 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, the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy, and impacts associated with transportation fuels for construction would be less than significant.

Phases 1, 2, and 3

Operation

Tertiary Treatment Facilities and Pipelines

During operation of the proposed project, electrical energy would be consumed to operate additional pumps, meters, UV system, and electrical room. Although the pipelines and storage tanks would involve the transportation or storage of water, the proposed project does not directly use water or generate

wastewater; therefore, no water usage was modeled for this analysis. Minimal amounts of emissions could be generated from maintenance operations, including routine cleaning and from periodic visits from service vehicles, and regular deliveries of various chemicals. The proposed project would have minimal amounts of emissions generated from periodic (a maximum of two trucks per week) visits from service vehicles for inspection and maintenance purposes, and up to five chemical truck deliveries per month. However, these trips would consume a minimal amount of fuel. Therefore, additional vehicle trips for inspections and maintenance purposes were not modeled for this analysis.

Electricity

Table 3.6-4 displays the proposed project's increase in energy demand from electricity. As discussed in Chapter 2, *Project Description*, relative to existing conditions, operation of Phase 1 would require approximately 4 MWh per year of additional energy, Phase 2 would require approximately 8 MWh per year of additional energy (includes Phase 1), and Phase 3 would require approximately 30 MWh per year of additional energy (includes Phases 1 and 2). In total, the proposed project would require an increase in energy of approximately 30 MWh per year.⁴ The total net increase in future electricity demand from the proposed project would represent approximately 0.88 percent of the IID network sales for 2023 of 3,422 GWh. Under peak conditions, the net increase of approximately 30 MWh on an annual basis would generally be equivalent to a peak of 0.003 to 0.007 MW (assuming 8,760 hours or 4,380 hours per year of active electricity demand). In comparison to the IID power grid base peak load of 1,152 MW for 2023, the net increase would represent approximately 0.0003 to 0.0006 percent of the IID base peak load conditions. Therefore, operation of the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of electricity and impacts related to electricity consumption would be less than significant.

**TABLE 3.6-4
PROJECT OPERATIONAL ENERGY USAGE**

Energy Type	Total Quantity During Operation
Electricity	
Phase 1	4 MWh per year
Phases 1 and 2	8 MWh per year
Phases 1, 2, and 3	30 MWh per year
MWh = megawatt-hours	

Natural Gas

The proposed project would not increase the demand for direct use of natural gas resources because no new sources are assumed in the project buildout. Therefore, operation of the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of natural gas and no impact related to natural gas would occur.

⁴ It is noted that the default electricity factors in CalEEMod, which was used for emissions calculation purposes for air quality and GHG emissions, indicates a net increase of electricity totaling approximately 85.65 MWh per year. Thus, the air quality and GHG emissions modeling analyses represents conservative (i.e., environmentally protective) analyses.

Transportation Energy

The proposed project would have minimal amounts of emissions generated from periodic visits from service vehicles for inspection and maintenance purposes (two trucks per week), and up to five chemical truck deliveries per month. By not significantly increasing vehicle trips, the proposed project would not conflict with statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles. Based on the above, the proposed project would minimize operational transportation fuel demand in line with state, regional, and County goals. Therefore, operation of the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy. Overall impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Energy Efficiency Plans

Impact 3.6-2: Would the proposed project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Phases 1, 2, and 3

The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Potential impacts would be less than significant.

The proposed project would utilize construction contractors who must demonstrate compliance with applicable regulations. Construction equipment would be required to comply with federal, state, and regional requirements, where applicable. With respect to truck fleet operators, USEPA and NHSTA have adopted fuel-efficiency standards for medium- and heavy-duty trucks that will be phased in over time. USEPA and NHTSA adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type (USEPA 2016). The energy modeling for trucks does not take into account specific fuel reductions from these regulations, since they would apply to fleets as they incorporate newer trucks meeting the regulatory standards. As a result, these regulations would have an overall beneficial effect on reducing fuel consumption from trucks over time as older trucks are replaced with newer models that meet the standards.

In addition, construction equipment and trucks are required to comply with CARB regulations regarding heavy-duty truck idling limits of 5 minutes per occurrence. Additionally, off-road emissions standards will increase equipment efficiencies as they are phased-in overtime and less-efficient equipment is phased out of construction fleets. These limitations would result in an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines. Although these requirements are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in the efficient use of construction-related energy, which would be generally consistent with CVWD CAAP measure CR-1. Thus, based on the information above, construction and operation of the project would comply with existing energy standards.

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 CARB's Advanced Clean Cars and Mobile Source Strategy, which is instituted to reduce mobile source emissions over time. This is expected to reduce energy consumption from future projects.⁵ Therefore, the proposed project would comply with existing energy standards, and impacts would be less than significant.

Phases 1, 2, and 3

Operation

Tertiary Treatment Facilities and Pipelines

The proposed project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources. The proposed project would result in a minimal increase in operation-related vehicle trips from service vehicles for inspection and maintenance purposes (two trucks per week) and up to five chemical truck deliveries per month; therefore, minimal amounts of fuel would be consumed. The proposed project would also utilize a vehicle fleet that complies with applicable vehicle standards, like the CAFE standards and the Pavley Standards, which are designed to result in more efficient use of transportation fuels. The proposed project would require an increase in electricity demand to support the increased capacity of WRP 4, however the electric utility providers would be required to comply with the State's Renewables Portfolio Standard, and the increase demand can be met with current supplies. CARB has outlined a number of potential strategies for achieving energy consumption reduction goals. These potential strategies include renewable resources for half of the State's electricity by 2030, reducing petroleum use in cars and trucks, and reducing the carbon content of transportation fuels. The proposed project would comply with these future regulations, as promulgated by the USEPA, CARB, CEC, or other agencies, and would be generally consistent with CVWD CAAP measures E-1 and EE-1.

Although the project's pipelines and storage tanks would involve the transportation or storage of water, the proposed project does not directly use water or generate wastewater. The purpose and objectives of the project are to optimize the use of recycled water for beneficial uses including agricultural users, provide an alternate water supply for local irrigation that is not local groundwater or imported Colorado River water, and to offset forecasted increases in water demands. Thus, the project directly supports CVWD CAAP measure WC-1.

Overall, the proposed project's features would support and promote the use of renewable energy and energy efficiency through compliance with regional and local general plan policies and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the proposed project impacts would be less than significant.

Mitigation Measures

None Required

⁵ Please note that the energy consumption quantitative analyses does not include reductions from future regulations not currently included in CalEEMod and EMFAC2021.

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.6-3: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to energy?

Phases 1, 2, and 3

Electricity

The geographic context for the cumulative analysis of electricity is IID's service area. Any cumulative projects would have electricity supplied by IID. Growth within this geography is anticipated to increase the demand for electricity and the need for infrastructure. Future development under the proposed project would result in the increased use of electricity resources. However, the use of such resources would be minor compared to existing supply and infrastructure within the IID service area and would be consistent with growth expectations. Additionally, it is expected that IID would continue to expand delivery capacity as necessary to meet demand increases within its service area. Furthermore, other cumulative developments would be required to incorporate energy conservation features in order to comply with applicable mandatory regulations including obtaining energy from utility providers in compliance with the RPS, the County's General Plan, and the 2019 CAP Update as applicable. As such, the proposed project's contribution to cumulative impacts due to wasteful, inefficient, and unnecessary consumption of energy would be less than cumulatively considerable.

Natural Gas

The geographic context for the cumulative analysis of natural gas is the SoCalGas service area. All cumulative projects would have natural gas supplied by SoCalGas. Cumulative development projects in the SoCalGas service area could result in the use of natural gas resources, however the use of such resources would be consistent with regional and local growth expectations for the SoCalGas service area. Further, SoCalGas expects overall natural gas demand to decline through 2035, even accounting for population and economic growth, with efficiency improvements and the State's transition away from fossil fuel-generated electricity to increased renewable energy. Future development projects would be required to incorporate energy conservation features in order to comply with applicable mandatory regulations including obtaining energy from utility providers in compliance with the RPS, the County's General Plan, and the 2019 CAP Update as applicable. Since the proposed project would not include any large stationary natural gas equipment, the project would not consume any substantial amounts of natural gas and its contribution to cumulative impacts due to wasteful, inefficient, and unnecessary consumption of energy would be less than cumulatively considerable.

Transportation Energy

The geographic context for the cumulative analysis of transportation energy is Riverside County. Growth within this area is anticipated to increase the demand for transportation and the need for infrastructure, such as new or expanded facilities. Most of the cumulative projects would increase the demand for transportation and the need for expanded infrastructure. Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current petroleum production and consumption and future trends, oil production and

consumption will grow through 2050 (USEIA 2023). However, domestic consumption of petroleum and other liquids does not increase through 2040. Therefore, supply should be sufficient (USEIA 2023).

Buildout of cumulative projects would be expected to increase overall VMT; however, the effect on transportation fuel demand would be reduced by future improvements to vehicle fuel economy pursuant to federal and state regulations which would increase current vehicle miles per gallon standards. Buildout of the proposed project, as well as cumulative projects, would cumulatively increase the demand for transportation-related fuel in the state and region. However, as discussed above, the proposed project would not conflict with the energy efficiency policies emphasized by the 2020–2045 RTP/SCS since the proposed project would result in minimal operational vehicle trips. Since the proposed project would not conflict with the 2020–2045 RTP/SCS with respect to energy use, the proposed project’s contribution to cumulative impacts with respect to potentially significant environmental impacts due to conflicts with or obstruction of a state or local plan for transportation energy efficiency would be less than cumulatively considerable.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.6.4 References

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3.7 Geology and Soils

This section addresses the potential impacts related to geology, soils, and paleontological resources associated with implementation of the proposed project. This section includes: a description of the existing conditions related to geologic hazards, soil conditions, and paleontological resources on the project site; a summary of applicable regulations related to geologic hazards, soil conditions, and paleontological resources; and an evaluation of the potential for the proposed project to result in environmental impacts related to the geologic hazards, soil conditions, and paleontological resources on the project site and in the surrounding study area. In addition, an evaluation of the potential cumulative impacts is provided.

3.7.1 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. Section 402 of the CWA would apply to the project because construction at the project site would be required to control discharges of pollutants from point sources, as discussed below (see Construction General Permit below).

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. Buildings for human occupancy cannot be constructed across surface traces of faults that are determined to be active. 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 California Geological Survey (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 CBC is updated triennially; 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 7-16, 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. Seismic design provisions of the building code generally prescribe minimum lateral forces applied statically to the structure, combined with the gravity forces of the dead and live loads of the structure, which the structure then must be designed to withstand. The prescribed lateral forces are generally smaller than the actual peak forces that would be associated with a major earthquake. Consequently, structures should be able to (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage but with some nonstructural damage; and (3) resist major earthquakes without collapse, but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a structure designed in accordance with the seismic requirements of the CBC should not collapse in a major earthquake.

The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, all of which are used to determine a seismic design category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site; SDC ranges from A (very small seismic vulnerability) to E/F (very high seismic vulnerability and near a major fault). Seismic design specifications are determined according to the SDC in accordance with CBC Chapter 16. CBC Chapter 18 covers the requirements of geotechnical investigations (Section 1803), excavation, grading, and fills

(Section 1804), load-bearing of soils (Section 1806), as well as foundations (Section 1808), shallow foundations (Section 1809), and deep foundations (Section 1810) and requirements for recommendations to address geotechnical issues in building construction. For Seismic Design Categories D, E, and F, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also addresses measures to be considered in structural design, which may include ground stabilization, selecting appropriate foundation type and depths, selecting appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions.

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 U.S. are 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 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 Construction General Permit 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 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 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 Construction General Permit. 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 activities begin. 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 Construction General Permit 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 Construction General Permit is implemented and enforced by the Colorado River RWQCB, which administers the stormwater permitting program. Dischargers must electronically submit a notice of intent and permit registration documents to obtain coverage under this Construction General Permit. Dischargers are to notify the 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 Excavation Notification Requirements

California Code of Regulations Section 4216 requires that construction contractors report a project that involves excavation 48-hours prior to breaking ground. This program allows owners of buried installations to identify and mark the location of its facilities before any nearby excavation projects commence. Adherence to this law by contractors of projects reduces the potential of inadvertent pipeline and utility damage and leaks.

California Occupational Safety and Health Administration Regulations

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. In California, the California Division of Occupational Safety and Health (Cal/OSHA) and the federal OSHA are the agencies responsible for ensuring worker safety in the workplace.

The OSHA Excavation and Trenching standard (29 CFR 1926.650), described above in Section 4.2.2.1, Federal Regulations, covers requirements for excavation and trenching operations, which are among the most hazardous construction activities. OSHA requires that all excavations in which employees could potentially be exposed to cave-ins be protected by sloping or benching the sides of the excavation, supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area. Cal/OSHA is the implementing agency for both state and federal OSHA standards.

Local

Waste Discharge Requirements for Coachella Valley Water District, Mid-Valley Water Reclamation Plant No. 4, Order No. R7-2023-0013, NPDES No. CA0104973

The WRP 4 is subject to the above-cited Waste Discharge Requirements (WDRs; RWQCB 2023). The WDRs describe the facility operation requirements, effluent limitations and discharge specifications and prohibitions, best management practices for pollution prevention, and reporting requirements. The WDRs specify that discharge from WRP 4 be treated to specific water quality objectives prior to discharge. All treated discharge is routed to one discharge point to the Coachella Valley Storm Water Channel; there are no other approved discharge locations. The WDRs also require that all stormwater falling on the facility is to be captured and routed to an internal basin; stormwater is not allowed to runoff from WRP 4.

County of Riverside Code and Development Regulations

The Riverside County Department of Building and Safety and the Riverside County Fire Department provide technical expertise in reviewing and enforcing the County Building and Fire Codes. These codes establish site specific investigation requirements, construction standards, and inspection procedures to ensure that development does not pose a threat to the health, safety, and welfare of the public. Through Ordinance 457 and Board of Supervisors Policy F-6, Riverside County prohibits grading without permits, levies penalties for illegal grading, and requires the restoration of illegally graded land to prevent off-site drainage and slope erosion. The following policy addresses code conformance and would be applicable to the proposed project:

Policy S 1.1: Mitigate hazard impacts through adoption and strict enforcement of current building codes, which will be amended as necessary when local deficiencies are identified.

Riverside County General Plan

The Riverside County General Plan contains the following policies related to geology and soils that are applicable to the proposed project:

Policy S 2.1 Minimize fault rupture hazards through enforcement of Alquist-Priolo Earthquake Fault Zoning Act provisions and the following:

- a) Require geologic studies or analyses for critical structures, lifelines, high-occupancy, schools, and high-risk structures, within 0.5 miles of all Quaternary to historic faults shown on the Earthquake Fault Studies Zones map. The County geologist shall review and make recommendations based on the results to reduce the potential risk.
- b) Request geologic trenching studies within all designated Earthquake Fault Studies Zones, unless adequate evidence, as determined by the Riverside County Geologist, is accepted. The County of Riverside may request geologic trenching of non-zoned faults for especially critical or vulnerable structures or lifelines.
- c) Require that infrastructure systems, such as energy, communications, and transportation infrastructure be designed to resist, without failure to the extent feasible, their crossing of a fault, should fault rupture occur.

Policy S 2.2 Request geological and geotechnical investigations in areas with potential for earthquake-induced liquefaction, landslides, or settlement, for any building proposed for human occupancy and any structure whose damage would cause harm, except for accessory structures/buildings, as determined by County officials. Any studies or surveys should be prepared/completed by a state-licensed professional.

Policy S 2.3 Require that a state-licensed professional investigate the potential for liquefaction in areas designated as underlain by “Susceptible Sediments” and “Shallow Groundwater” for all proposed critical facilities, except for accessory buildings. Any studies must be prepared/completed by a state-licensed professional.

Policy S 2.4 Request that engineered slopes be designed to resist seismically-induced failure as appropriate. For lower-risk projects, this may include requiring slope design to be based on pseudo-static stability analyses using soil engineering parameters that are established on a site-specific basis. For higher risk projects, appropriate standards may include requiring the stability analyses to factor in the intensity of expected ground-shaking, using a Newmark-type deformation analysis or other analyses as appropriate.

Policy S 2.5 Request that cut-and-fill transition lots appropriately mitigate the potential of seismically-induced differential settlement, including through using over-excavation or other techniques as required by geotechnical, soils, and grading requirements.

Policy S 2.6 Request structures in liquefaction and slope instability hazard zones to mitigate the potential of seismically-induced differential settlement through appropriate techniques as determined by geotechnical studies, including a 100-percent maximum variation of fill depths as warranted.

3.7.2 Environmental Setting

Regional Geology

The proposed project site is located within the Colorado Desert Geomorphic Province¹ (CGS 2002), also referred to as the Salton Trough (Earth Consultants International 2000; Converse 2021). This province is a low-lying barren desert basin, in part dominated by the Salton Sea. The province is a depressed tectonic block between active branches of alluvium-covered San Andreas Fault with the southern extension of the Mojave Desert on the east. It is characterized by the ancient beach lines and silt deposits of extinct Lake Cahuilla. Geologic materials in the region are mostly composed of marine sedimentary deposits, metamorphic rocks, and volcanic rocks.

The desert communities and farmland of the Coachella Valley, where the proposed project is located, are within the Salton Trough. Here, the tectonic plates are separating with spreading centers continuing to the south into the Gulf of California. At present, the Salton Trough is cut off from the Gulf of California by an accumulation of sediment at the mouth of the Colorado River. The trough is filled with sediment three miles thick derived primarily from the Colorado River periodically during the last 10,000 years, the trough has been inundated with water. The most recent inundation formed the Salton Sea in 1905. The deposits in the Coachella Valley consist of several thousand feet alluvial (i.e., river and lake) deposits of sand, gravel, silt, and clay.

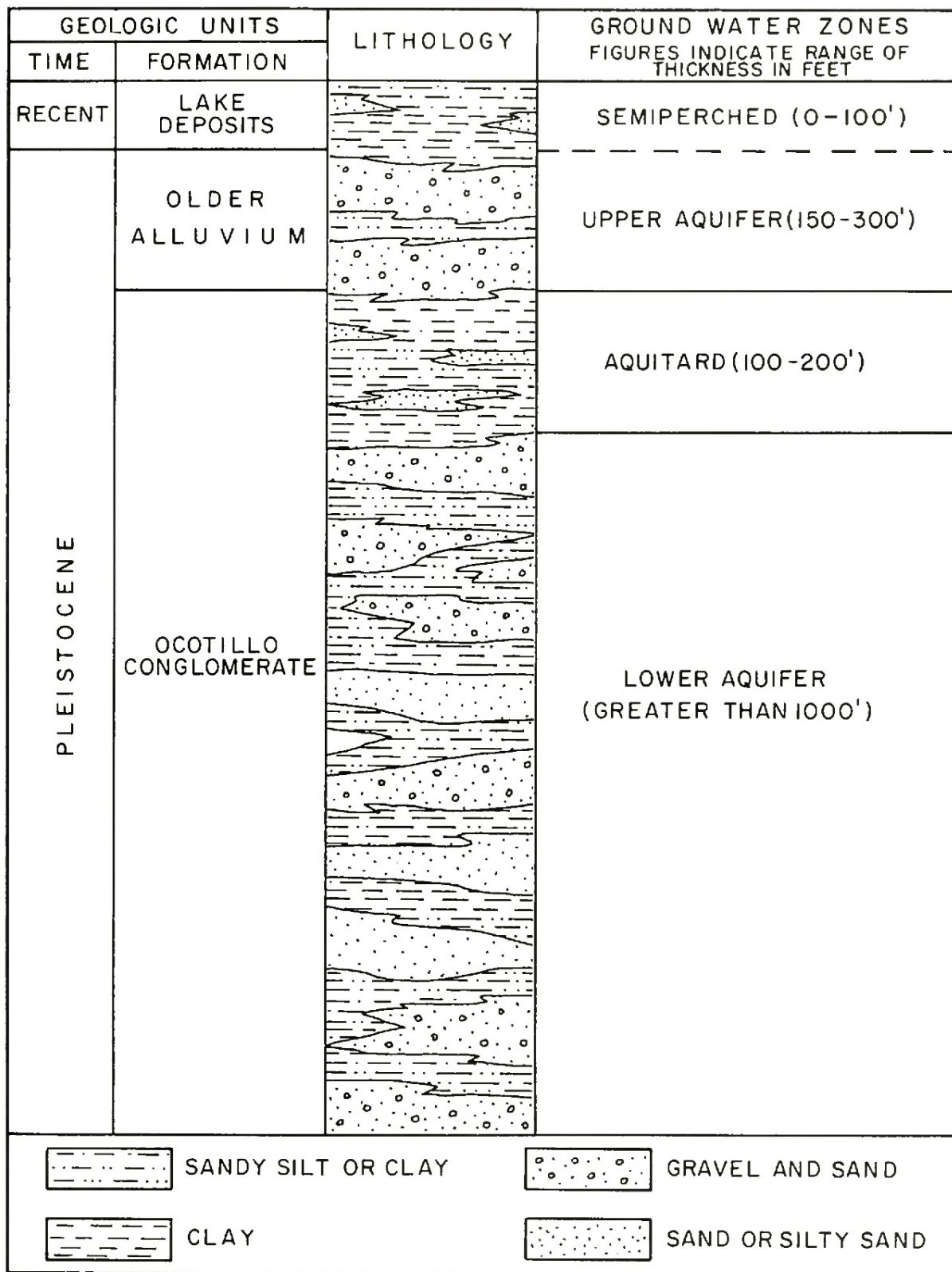
The proposed project area is located within a hydrologic area referred to as the Thermal Subarea within the Indio Subbasin (Indo Subbasin Groundwater Sustainability Agencies 2021). **Figure 3.7-1** presents a generalized stratigraphic column of the Thermal Subarea showing local geologic units and groundwater zones. As illustrated, the hydrostratigraphy is characterized by the following units from shallow to deep:

- Recent (present to 11,700 years before present) silts, clays, and fine sands that form a shallow semi-perched and confining zone² up to 100 feet thick.
- Older alluvium (upper Pleistocene and older than 11,700 years before present) consisting of mostly gravels and sands with some sandy silt or sandy clay, that form 150 to 300 feet of unconfined (water table) conditions of the upper aquifer.³
- Upper portions of the Pleistocene (11,700 to 2.6 million years before present) Ocotillo Conglomerate clay with some sand and sandy silt that forms a 100- to 200-foot-thick semi-confining aquitard.
- The Pleistocene Ocotillo Conglomerate consisting of up to 12,000 feet of silty sands and gravels with interbeds of silt and clay that form confined and artesian aquifer conditions.

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

² A confining zone or aquitard is an underground layer of geologic materials that limits the movement of groundwater to deeper zones.

³ An aquifer is an underground layer of permeable geologic materials that can store and yield groundwater to wells.



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SOURCE: Todd Groundwater and Woodward Curran 2022

WRP 4 Project

Figure 3.7-1
Generalized Stratigraphic Column in Thermal Subarea

Local Geology and Soils

A geotechnical investigation conducted for the project drilled four borings to 51.5 feet below the ground surface (bgs) (Converse 2021). The borings encountered a mixture of sand, silt and occasional layers or lenses of silty clay. Based on the borings and historical groundwater data, the depth to groundwater ranges from about 8 to 12 feet bgs.

Soils at the project site consist of Gilman sandy and silty loam, and Indio sandy loam (NRCS 2023). Loam is a mix of sand, silt, clay, and organic material. Note that the original and subsequent construction activities at the project site have disturbed native soil from its original condition. In addition, non-native fill have likely been used in some places.

Geologic and Seismic Hazards

Expansive Soils

Expansive soils are soils that possess a “shrink-swell” characteristic, also referred to as expansion or 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.⁴ The geotechnical investigation included laboratory testing for expansive soils (Converse 2021). The results indicated that soils at the site have a very low potential for expansion.

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 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. The proposed project site relatively flat and therefore not susceptible to erosion.

Faults, Seismicity, and Seismic Shaking

The proposed project area is located in a seismically active region of California that contains active faults. Active faults are those faults that have experienced movement within the last 11,700 years. Throughout the region, there is the potential for damage resulting from movement along any one of a number of the active faults, seismic shaking, and seismically induced ground failures (e.g., liquefaction). Although the project site lies within a region that contains active faults, there are no Holocene-active⁵ faults or Alquist-

⁴ Perched groundwater is a local saturated zone above the water table that typically exists above an impervious layer (such as clay) of limited extent.

⁵ Holocene-active faults show displacement within the Holocene Epoch or the last 11,700 years (CGS, 2008).

Priolo Earthquake Zones⁶ crossing the proposed project footprint, as shown on **Figure 3.7-2** (Earth Consultants International 2000). As listed below in **Table 3.7-1**, the nearest active faults are the San Andreas, San Jacinto and Elsinore Fault Zones. The distances to active faults are listed for both the WRP 4 facility and the proposed pipelines.

**TABLE 3.7-1
ACTIVE FAULTS**

Fault or Fault Zone	Approximate Distance from WRP 4	Approximate Distance from Nearest Proposed Pipeline	Historical Seismicity^a	Maximum Credible Earthquake^b
San Andreas Fault Zone – Coachella Segment	4.5 miles northeast	1.5 miles northeast	M7.1 in 1989; M8.25 in 1906; M7.0 in 1838; Many <M6	7.1
San Jacinto Fault Zone – Anza Segment	17 miles southwest	16.5 miles southwest	M6.8 in 1868 Many <M4.5	7.2
Elsinore Fault Zone	42 miles southwest	42 miles southwest	M5.6 and 5.7 in 1969 Some between 1715 and 1776	7.2

Notes:

- a. M denoted magnitude and does not differentiate between the older Richter and more recent moment magnitude measurement scales.
b. The maximum credible earthquake is an estimated moment magnitude (M) for the largest earthquake capable of occurring on a fault.

Source: Earth Consultants International 2000

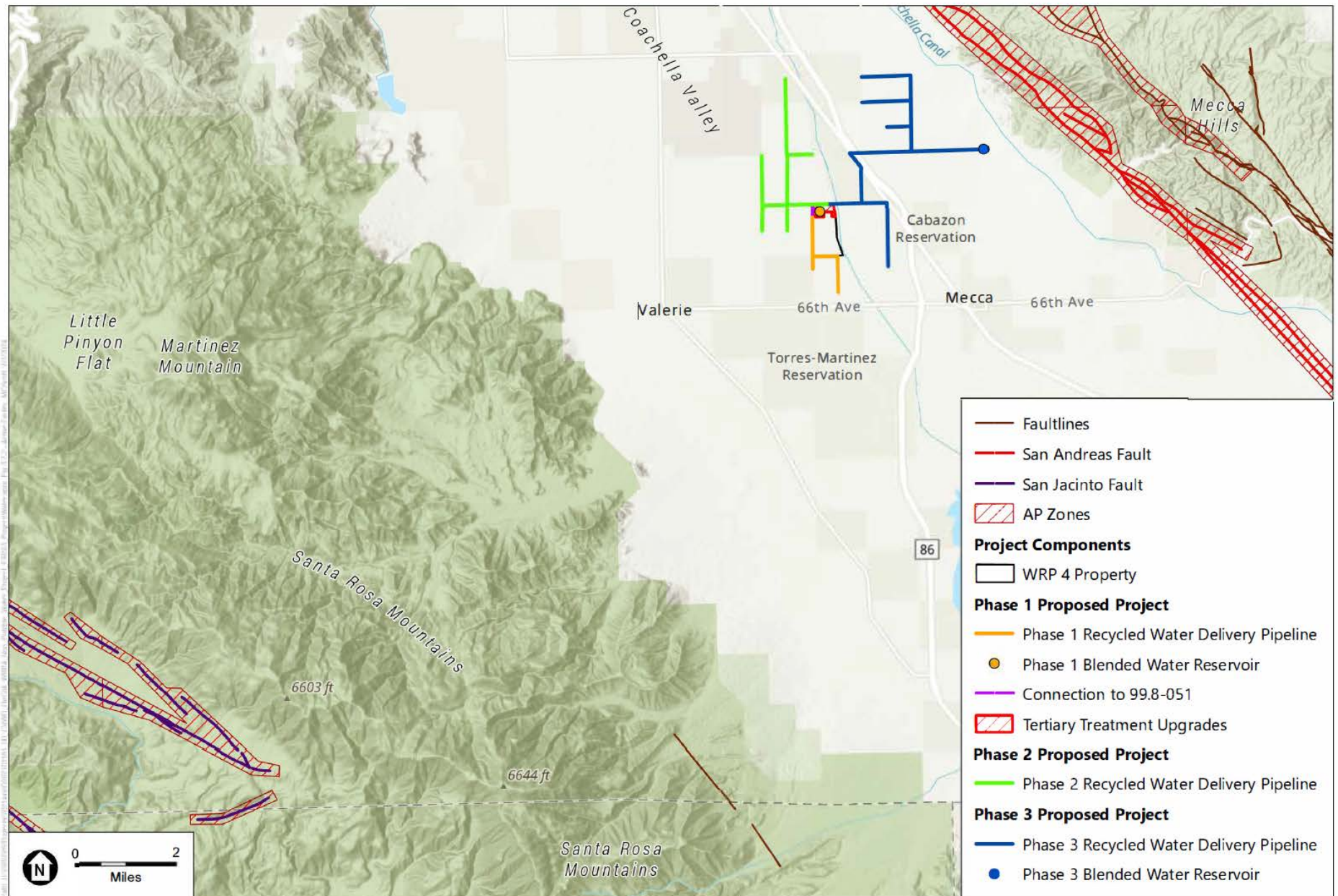
San Andreas Fault Zone – Coachella Segment

The San Andreas Fault Zone is the major structural feature in the region and forms a boundary between the North American and Pacific tectonic plates. The San Andreas Fault is a major northwest-trending, right-lateral,⁷ strike-slip⁸ fault zone. The fault zone extends for about 600 miles from the Gulf of California in the south to Cape Mendocino in the north. The Coachella Valley segment extends from the San Geronio Pass to the Salton Sea (Earth Consultants International 2000). It has not produced large, surface-rupturing earthquakes in historic times. Paleoseismic studies suggest that the last surface-rupturing earthquake on this segment occurred around 1680. Studies at Indio indicate that prior to 1680, earthquakes on this fault segment occurred at an average recurrence interval of 220 years (Earth Consultants International 2000). The data also suggest that the Coachella Valley and San Bernardino Mountain segments ruptured simultaneously in earthquakes that occurred around 1680 and 1450. The segment is creeping at a rate of about 2 to 4 millimeter per year (mm/yr), and has a long-term slip rate of about 25, ± 5 mm/yr. This segment has an estimated 22 percent probability of rupturing over the next 30 years and is estimated capable of producing a magnitude 7.1 earthquake.

⁶ The Alquist-Priolo Special Studies Act was signed into law in 1972 and requires the State Geologist to delineate active earthquake fault zones (500 foot zone for major active faults; 200 to 300 feet for minor active faults). The Act requires that cities and counties withhold development permits until a geotechnical investigation demonstrates that sites are not threatened by surface displacements from future faulting.

⁷ To an observer straddling a right-lateral fault, the right-hand block or plate would move towards the observer.

⁸ A strike-slip fault creates vertical (or nearly vertical) fractures (i.e., the blocks primarily move horizontally).



SOURCE: ESA, 2023; USGS, 2023

WRP 4 Project

Figure 3.7-2
Regional Active Faults

San Jacinto Fault Zone – Anza Segment

The San Jacinto Fault Zone consists of a series of closely spaced faults that form the western margin of the San Jacinto Mountains (Earth Consultants International 2000). The fault zone extends from its junction with the San Andreas fault in San Bernardino, southeasterly toward the Brawley area, where it continues south of the international border as the Imperial transform fault. The San Jacinto fault zone has a high level of historical seismic activity, with at least ten damaging (Mw 6 to 7) earthquakes having occurred on this fault zone between 1890 and 1986. Earthquakes on the San Jacinto fault in 1899 and 1918 caused fatalities in the Riverside County area. The segments of the San Jacinto fault that are of most concern to Riverside County are the San Bernardino, San Jacinto Valley and Anza segments.

Fault slip rates on the various segments of the San Jacinto Fault Zone are less well constrained than for the San Andreas Fault Zone; the available data suggest slip rates of 12 ± 6 millimeters per year (mm/yr) for the northern segments of the fault and slip rates of 4 ± 2 mm/yr for the southern segments. For large ground-rupturing earthquakes on the San Jacinto Fault Zone, various investigators have suggested a recurrence interval of 150 to 300 years. The Anza segment has an estimated 17 percent probability of rupturing over the next 30 years. A maximum credible earthquake of magnitude 7.2 is expected on the Anza segments, capable of generating peak horizontal ground accelerations of 0.48 to 0.53 g in the County of Riverside.

Elsinore Fault Zone

The Elsinore Fault Zone parallels the San Jacinto Fault Zone and is part of the same right-lateral crustal plate strain system as the San Andreas and the San Jacinto Fault Zones (Earth Consultants International 2000). The most apparent displacements have been vertical, as evidenced by the steep scarp (an earthquake-built cliff) along the Santa Ana Mountains. Maximum credible earthquakes of Mw 6.7 to 6.8 are assigned for the Elsinore Fault Zone. Major ground rupturing events on these fault segments would generate peak ground accelerations of 0.47 to 0.48 g for Riverside County. The Elsinore Fault Zone has an estimated probability of 5 percent to 16 percent for these events to occur over the next 30 years.

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, 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.

The proposed project footprint is entirely within an area with a high susceptibility to liquefaction and lateral spreading (Earth Consultants International 2000; Converse 2021). Additionally, liquefaction within undocumented fill could contribute to lateral spreading. The geotechnical investigation settlement analysis estimated liquefaction could cause up to 8 inches of settlement and lateral spreading could be up to 3 to 5 feet (Converse 2021).

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 proposed project area is flat and does not have any steep slopes (Earth Consultants International 2000; Converse 2021).

Paleontological Resources

Paleontological resources are the mineralized (fossilized) remains of prehistoric plants and animals, including body fossils, such as bones, bark or wood, and shell, as well as trace fossils, such as shell, leaf, skin, or feather impressions, footprints, burrows, or other evidence of an organism's life or activity. These resources are located within sedimentary rocks or alluvium and are considered to be nonrenewable.

In its "Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources," the Society of Vertebrate Paleontology (SVP) defines four categories of paleontological potential for rock units: high, low, undetermined, and no potential: High Potential, rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources; Low Potential, rock units that are 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; Undetermined Potential, rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment; and No Potential, rock units like high-grade metamorphic rocks and igneous rocks that will not preserve fossil resources (SVP 2010).

Natural History Museum of Los Angeles County (LACM) Database Search

A paleontological resources database search was conducted by the Natural History Museum of Los Angeles County (LACM) on January 14, 2024. Results of the paleontological resources records search conducted by the LACM indicated that no fossil localities lie directly within the proposed project; however, several fossil localities (LACM IP 4770, 4775, 4776, 17946; LACM VP 1139, 1140, 1148-1152, 3233-3239, 5834, 6252-6256 6921) were identified in the Coachella Valley (Natural History Museum of Los Angeles County 2024).

The locations provided by the LACM are not relevant to the proposed project as all the fossil localities are from units older than those found in the proposed project. The following information provides more

details for these justifications. Fossil localities LACM IP 4770, 4775, and 4776 are from an unknown Pleistocene unit that contains unspecified invertebrates. The proposed project does not contain Pleistocene units and invertebrates, because they are common, and are often considered low significance. Fossil localities LACM VP 6252-6256 and IP 17946 are from the Pleistocene Lake Cahuilla beds. These distinctive deposits are not found in the proposed project based on the detailed surficial geological map of Bedrossian et al. (2012), though they are found elsewhere in the Salton Trough. The final localities from the Mecca Hills (LACM VP 1139, 1140, 1148-1152, 3233-3239, 5834, 6921) directly east of the proposed project are from older units that do not crop out in the proposed project and are likely to be at significant depth below younger alluvial units.

Geologic Map and Literature Review

The proposed project is broadly mapped on the *Geologic map of the Palm Desert & Coachella 15 minute quadrangles* (Dibblee and Minch 2008) 1:62,500 geological map as Quaternary alluvium. More detailed exploration of the surficial units is presented in Bedrossian et al. (2012; plate 24: Palm Springs 30' x 60' quadrangle). In this detailed map, the proposed project lies on braided channels of young alluvial deposits (Qya) and alluvial wash deposits (Qw), surrounded by young alluvial fans (Qyf). These units are all very young, dating to the Holocene. The only Pleistocene alluvium is exposed to the east of the proposed project. Older alluvium likely underlies the younger alluvium at an unknown depth. Given the width of the valley and the active tectonics, coupled with the extreme sedimentary depths recorded elsewhere in the Salton Trough, it is likely that the transition to the Pleistocene is at a significant depth.

Paleontological Sensitivity Analysis

The geologic mapping review and LACM records search results were used to assign paleontological sensitivity to the geologic units at surface and projected to underly the proposed project, following the guidelines of the SVP (2010):

Alluvial wash deposits (Qw): This unit comprises active stream deposits and is considered too young to contain fossils. Therefore, this unit is assigned a **Low Potential** to contain paleontological resources.

Young alluvial valley deposits (Qya): The alluvial valley deposits are recent to late or middle Holocene braided stream deposits, and are considered too young to contain fossils. Therefore, this unit is assigned a **Low Potential** to contain paleontological resources.

Young alluvial fans (Qyf): The young alluvial fans are also of a late or middle Holocene age. In addition to the young age, the fans were formed in an active environment and are dominated by coarse deposits. Therefore, this unit is assigned a **Low Potential** to contain paleontological resources.

3.7.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to geology and soils. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
 - Strong seismic ground shaking.
 - Seismic-related ground failure, including liquefaction.
 - Landslides.
- Result in substantial soil erosion or the loss of topsoil.
- 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.
- Be located on expansive soil⁹ creating substantial direct or indirect risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Result in cumulatively considerable impacts to geology and soils.

Methodology

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 relevant sections of the Riverside County General Plan.

The proposed project would be regulated by the various laws, regulations, and policies summarized above in Section 3.7.1, *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.

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 local

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 soils.

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.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. The 2021 geotechnical investigation provided recommendations to addresses identified geotechnical issues (Converse 2021).

The analysis of paleontological resources is based on a review of the LACM paleontological records search results for the proposed project, review of geologic maps and a paleontological sensitivity analysis.

Impact Analysis

Rupture of an Earthquake Fault

Impact 3.7-1: Would the proposed project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault?

Phase 1, 2, and 3

The proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

There are no Holocene-active faults within the proposed project site. As such, there would be no risk of surface fault rupture at the project site. Therefore, no impact would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

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.

Seismic Shaking

Impact 3.7-2: Would the proposed project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Phase 1, 2, and 3

The proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Potential impacts would be less than significant.

There are no Holocene-active faults within the proposed project footprint. However, the San Andreas and San Jacinto Fault Zones are in relatively close 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 active fault zones, new infrastructure proposed by the project would be subject to strong seismic ground shaking in the event of an earthquake originating from nearby 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 structural foundations, distort or break pipelines, and place people at risk of injury or death. Strong seismic ground shaking has historically caused damage, injury, and loss of life; these hazards could potentially result in damage to project components, resulting in loss, injury, or death.

Construction

Tertiary Treatment Facilities and Pipelines

Until constructed, the components of the proposed project would not be susceptible to damage from seismic shaking and there would be no impact.

Operation

Tertiary Treatment Facilities and Pipelines

As required by California law, new development would be subject to the seismic design criteria of the CBC and local building codes, which require that all improvements be constructed to withstand anticipated ground shaking from regional fault sources. Each new development would be required to obtain a site-specific geotechnical report prior to the issuance of individual grading permits; each new development would be required to retain a licensed geotechnical engineer to design new structures to withstand probable seismically induced ground shaking. The CBC standards and local codes require new development 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. As previously discussed, a geotechnical investigation was conducted in 2021 based on the preliminary design, which identified geotechnical issues and recommendations to address those issues. Adherence to the applicable CBC requirements and local codes, along with implementation of the geotechnical investigation recommendations, would ensure that the proposed 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

Liquefaction

Impact 3.7-3: Would the proposed project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Phase 1, 2, and 3

The proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Potential impacts would be less than significant.

Construction

Tertiary Treatment Facilities and Pipelines

Until constructed, the components of the proposed project would not be susceptible to damage from seismic-related ground failure, such as liquefaction, and there would be no impact.

Operation

Tertiary Treatment Facilities and Pipelines

As required by California law, new development would be subject to the seismic design criteria of the CBC and local building codes, which require that all improvements be constructed to withstand any anticipated seismic-related ground failures, including liquefaction and lateral spreading, due to ground shaking from an earthquake. Each new development would be required to obtain a site-specific geotechnical report prior to the issuance of individual grading permits; each new development would be required to retain a licensed geotechnical engineer to investigate and evaluate each new development site and design new structures to withstand probable seismic-related ground failures, such as liquefaction and lateral spreading. The CBC standards and local codes require all new development 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. Liquefaction hazards can generally be addressed through site preparation measures or foundation design measures such as removal and replacement of liquefiable soils, densification of these soils, or specific foundation design recommendations.

Here, a geotechnical investigation was conducted in 2021 based on the preliminary design, which identified the potential for and provided recommendations to address liquefaction and lateral spreading. Specifically, the geotechnical investigation stated that the potential for liquefaction of soil could be addressed by implementing ground improvement methods including stone columns with soil mixing. The stone columns should be 3 feet in diameter, installed to a depth of 42 feet, and spaced in an 8 foot grid. Soil mixing should be conducted to a depth of 33 feet. California Building Code Chapter 18, Sections 1803.1 thru 1803.6, requires appropriate measures from a geotechnical report be implemented to address geotechnical risks of a project. Additionally, CVWD's development design manual requires compliance with the results of geotechnical investigation and recommendations. CVWD's 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. Implementation of these measures in accordance with building code requirements would effectively reduce the hazard to minimize any potential for substantive damage. Compliance with all applicable CBC and local code requirements, including the implementation of the geotechnical investigation recommendations, would ensure that the proposed project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Therefore, the impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Landslides

Impact 3.7-4: Would the proposed project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Phase 1, 2, and 3

The proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

The proposed project site is in a flat area with no steep slopes. There would be no landslide potential due to the relatively flat topography and lack of slopes and hills. As a result, no impact would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Soil Erosion

Impact 3.7-5: Would the proposed project result in substantial soil erosion or the loss of topsoil?

Phase 1, 2, and 3

The proposed project would not result in substantial soil erosion or the loss of topsoil. Potential impacts would be less than significant.

Construction

Tertiary Treatment Facilities and Pipelines

Project construction would include ground disturbance activities, such as site clearing, grading, or excavation. This construction would require disturbance of one or more acres of ground, and CVWD would thus be required to apply for coverage under the Construction General Permit. As discussed in

Section 3.7.1, *Regulatory Framework*, the Construction General Permit requires the preparation and implementation of a SWPPP, which would include BMPs designed to control and reduce soil erosion. The BMPs may include storm water runoff quality control measures such as silt fences, straw wattles, detention basins, and other runoff control measures; watering for dust control; and other BMPs. Compliance with the Construction General Permit requirements to control runoff would ensure that impacts related to erosion and soil loss would be less than significant.

Operation

Tertiary Treatment Facilities and Storage Tank

As discussed above in Section 3.7.1, *Regulatory Framework*, the project design for the upgrades to the WRP 4 would be required to comply with the requirements of the existing WRP 4 WDR permit. All stormwater is currently drained to a basin designed to contain all stormwater that falls on WRP 4; no stormwater runs to offsite areas. The design of upgrades to WRP 4 would be required to route stormwater falling on new facility surfaces into the stormwater basin. No offsite drainage of stormwater is permitted. Compliance with the existing WDR permit to control stormwater runoff would ensure that impacts related to erosion and soil loss would be less than significant.

Pipelines

Upon completion of construction activities, all pipelines would be underground. The overlying ground surface would be restored to its existing condition. There would be no changes to drainages. With no changes to surface drainages, there would be no impacts.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Unstable Geologic Soils

Impact 3.7-6: Would the proposed project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Phase 1, 2, and 3

The proposed project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

The project site is not susceptible to landslides. Although liquefaction and lateral spreading can occur without seismic shaking, they are more commonly associated with seismic shaking and are analyzed above in Impact 3.7-2.

Subsidence and collapse are associated with the injection or extraction of large amounts of groundwater and/or petroleum oil and/or natural gas. The proposed project does not include any of these activities. Therefore, there would be no impact.

Mitigation Measures

None Required

Significance Determination

No Impact

Expansive Soils

Impact 3.7-7: Would the proposed project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Phase 1, 2, and 3

The proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

The soils in the proposed project area are not considered susceptible to expansion. As a result, there would be no impact associated with expansive soils.

Mitigation Measures

None Required

Significance Determination

No Impact

Septic Tanks

Impact 3.7-8: Would the proposed project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Phase 1, 2, and 3

The proposed project would not have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

No septic tanks or alternative wastewater systems would be installed at the project site. The upgrades to the existing sanitary sewer infrastructure would be installed within the existing project site and would not include alternative systems at locations not currently used for the treatment of wastewater. As such, the

proposed project does not propose or require the installation of new septic tanks or other alternative water disposal systems. Therefore, no impact would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Paleontological Resources

Impact 3.7-9: Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Phase 1, 2, and 3

The proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Potential impacts would be less than significant.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

Geologic map review indicates that the proposed project lies within young alluvial deposits (Qya) and alluvial wash deposits (Qw), and surrounded by young alluvial fans (Qyf). These units are very young, dating to the Holocene. The only Pleistocene alluvium is exposed to the east of the proposed project. Given the width of the valley and the active tectonics, coupled with the extreme sedimentary depths recorded elsewhere in the Salton Trough, it is likely that the transition to the Pleistocene is at a significant depth.

Results of the paleontological resources records search conducted by the LACM indicated that no fossil localities lie directly within the proposed project; however, several fossil localities (LACM IP 4770, 4775, 4776, 17946; LACM VP 1139, 1140, 1148-1152, 3233-3239, 5834, 6252-6256 LACM VP 6921) were identified in the Coachella Valley. The locations provided by the LACM are not relevant to the proposed project as all the fossil localities are from units older than those found in the proposed project. Finally, the paleontological sensitivity analysis conducted for the proposed project indicates that the geologic units within the proposed project are assigned a Low Potential for containing paleontological resources. As such, the proposed project would result in less than significant impacts to paleontological resources.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.7-10: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to geology and soils?

Phase 1, 2, and 3

Existing planning documentation outlined in Section 3.0.2, *Cumulative Impacts Methodology*, and in this section identifies local and regional plans that describe or evaluate regional or area wide conditions contributing to cumulative impacts. The proposed project has a low potential for yielding paleontological resources, based on the fact that the proposed project contains young alluvial soils dating back to the Holocene. Planned residential development in the project area is slated for areas east of the Jacqueline Cochran Regional Airport in the community of Thermal, which is north of the proposed project area (County of Riverside 2021). The areas in the immediate vicinity of the proposed project are planned to be maintained as agricultural land. Any projects constructed or operated within the project area over the 20 year implementation timeframe would be required to undergo appropriate design-level geotechnical evaluations prior to final design and construction, similar to the proposed project. Further, each proposed project would be required to comply with the applicable federal, state, and local regulations and engineering standards discussed in Section 3.7.1, *Regulatory Framework*. Operational activities required for the proposed projects would not include activities that could result in geology and soils impacts. Further, the proposed project is consistent with all applicable land use planning documents. As a result, impacts would not be cumulatively considerable and cumulative impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.7.4 References

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Dibblee, T.W., and Minch, J.A., 2008, Geologic map of the Palm Desert & Coachella 15 minute quadrangles, Riverside County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-373, scale 1:62,500.

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Regional Water Quality Control Board (RWQCB), 2023. *Order R7-2023-0013, NPDES No. CA0104973, Waste Discharge Requirements for Coachella Valley Water District, Mid-Valley Water Reclamation Plant No. 4*. Adopted April 11.

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3.8 Hazards and Hazardous Materials

This section addresses the potential impacts related to hazards and hazardous materials associated with implementation of the proposed project. This section includes: a description of the existing hazards and hazardous materials conditions on the project site; a summary of applicable regulations related to hazards and hazardous materials; and an evaluation of the potential for the proposed project to result in environmental impacts related to the hazards and hazardous materials on the project site and in the surrounding project area. In addition, an evaluation of the potential cumulative impacts is provided.

3.8.1 Regulatory Framework

Federal

The primary federal agencies with responsibility for hazards and hazardous materials management include the US Environmental Protection Agency (USEPA), 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 3.8-1**.

**TABLE 3.8-1
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 USEPA 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 – Part 761 Polychlorinated Biphenyls (PCBs) – covers the identification and sampling requirements for PCBs for disposal purposes.
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).
	US Postal Service (USPS)	USPS regulations govern the transportation of hazardous materials shipped by mail.
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).

State

The primary State agencies with responsibility for hazardous materials management in the region include the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (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 3.8-2**.

TABLE 3.8-2
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 Riverside County is the Riverside County Department of Environmental Health (RCDEH).
	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.
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 RCDEH.
	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.

Classification	Law or Responsible State Agency	Description
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

Riverside County Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

As explained above, the 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 Riverside County Department of Environmental Health Hazardous Materials Branch as the local CUPA. The CUPA is charged with the responsibility of conducting compliance inspections of over hazardous materials facilities in Riverside 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

Waste Discharge Requirements for Coachella Valley Water District, Mid-Valley Water Reclamation Plant No. 4, Order No. R7-2017-0006, NPDES Permit No. CA0104973

The WRP 4 is permitted under *Waste Discharge Requirements (WDR) Order No. R7-2017-0006, National Pollutant Discharge Elimination System (NPDES) Permit CA0104973, General Industrial Storm Water Permit, Coachella Valley Water District Mid-Valley Water Reclamation Plant No. 4 (RWQCB 2017)*. The WDRs describe the facility operation requirements, effluent limitations and discharge specifications and prohibitions, best management practices for pollution prevention, and reporting requirements. The WDRs specify that discharge from WRP 4 be treated to specific water quality objectives prior to discharge. All treated discharge is routed to one discharge point to the Coachella Valley Storm Channel (CVSC); there are no other approved discharge locations. The WDRs also require that all stormwater falling on the facility is to be captured and routed to an internal basin; stormwater is not allowed to runoff from the WRP 4 facility. This NPDES permit authorizes the facility to discharge a maximum monthly average daily effluent flow of 9.9 million gallons per day (MGD) to the CVSC. The annual average influent flows have remained relatively constant over the past few years, averaging 4.9 MGD (Ecorp 2022). WRP 4 uses two secondary treatment systems operating in parallel to provide carbonaceous biological oxygen demand (CBOD) and total settleable solids (TSS) reduction: a lagoon treatment system with a permit capacity of 7.0 MGD and an activated sludge treatment system with a permit capacity of 2.9 MGD.

County of Riverside Code and Development Regulations

The Riverside County Department of Building and Safety and the Riverside County Fire Department provide technical expertise in reviewing and enforcing the County Building and Fire Codes. These codes establish site specific investigation requirements, construction standards, and inspection procedures to ensure that development does not pose a threat to the health, safety, and welfare of the public. Through Ordinance 651.5, Riverside County requires entities that generate, store, handle, dispose, treat or recycle hazardous materials to prepare and implement a Hazardous Material Business Plan (HMBP) and acquire a permit for such use from the Riverside County Department of Environmental Health (RCDEH).

Riverside County General Plan

The Riverside County General Plan contains the following policies related to hazards and hazardous materials that are applicable to the proposed project:

Safety Element:

Policy S 5.5: Regulate the storage of hazardous materials and wastes and require secondary containment and periodic examination for all such materials as necessary.

Policy S 5.8: Ensure that the use and disposal of hazardous materials in the County complies with local, state, and federal safety standards.

3.8.2 Environmental Setting

Hazardous Materials Use at WRP 4

WRP 4 is in the unincorporated community of Thermal and is CVWD's second largest wastewater reclamation plant. The facility is permitted under a NPDES WDR permit (see Section 3.8.1, *Regulatory Framework*) to discharge a maximum monthly average daily effluent flow of 9.9 MGD to the CVSC (RWQCB 2017).

Influent is initially processed through the headworks facility constructed in 2012. Following the headworks, flow is split into two main treatment trains (Black & Veatch 2022). A lagoon system consisting of four modules, each consisting of 4 lagoons and 2 polishing ponds, have a capacity of 7 MGD. The ponds are periodically dredged and collected solids are deposited in onsite drying beds. In parallel to the lagoon system, an aerated activated sludge system consisting of two trains that feed into two circular secondary clarifiers at a capacity of 2.9 MGD. Solids handling facilities include thickening and dewatering using a belt filter press and gravity belt thickener and are then loaded and transported offsite. Currently the liquid stream and the effluent from the polishing ponds are combined and fed into a chlorine contact basin that uses gaseous chlorine for disinfection and sodium bisulfite for dechlorination. WRP 4 effluent is discharged into the adjacent CVSC at EFF 003 (see Figure 3.9-2 in Section 3.9, *Hydrology and Water Quality*) in accordance with the NPDES permit.

Hazardous Materials Sites

Active and closed hazardous materials sites that have reported spills or releases are tracked on the State Water Resources Control Board (SWRCB) GeoTracker and DTSC EnviroStor websites, which can be viewed simultaneously (SWRCB-DTSC 2024). These listings are part of the Government Code Section 65962.5 listings of hazardous materials that have had spills or releases. No known hazardous materials release sites are located at, adjacent to, or within one mile of the project site.

Proximity to Schools

There are no schools located within 0.25 mile of the project site. The nearest school is the La Familia high School located at 860 Hinckley Road, approximately 0.3 miles north northwest of the northernmost extension of a proposed Phase 2 pipeline and Toro Canyon Middle School, located at 86150 66th Avenue, approximately 2 miles to the southwest/south of the Phase 1/2 pipelines, respectively.

Proximity to Airports

There are no airports within two miles of the project site. The nearest airport is the Jaqueline Cochran Regional Airport, located approximately 2.4 miles northwest of WRP 4. One of the northernmost extensions of the Phase 1 pipeline is about 0.5 miles southwest of the airport.

Wildland Fires

A wildland fire is any non-structure fire that occurs in vegetation or natural fuels. The project site is in a desert with minimal vegetation. According to the California Department of Forestry and Fire Protection (Calfire) Fire Hazard Severity Zone Maps of Riverside County, the project site is not located within or near a very high fire hazard severity zone (Calfire 2009, 2023).

3.8.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to hazards and hazardous materials. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- 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 create a significant hazard to the public or the environment.
- 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, result in a safety hazard or excessive noise for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.
- Result in cumulatively considerable impacts to hazards and hazardous materials.

Impact Analysis

Routine Use or Accidental Release of Hazardous Materials

Impact 3.8-1: Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Phases 1, 2, and 3

The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Potential impacts would be less than significant.

Construction

Tertiary Treatment Facilities and Pipelines

During project construction, 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. In addition, the chlorine gas currently used for disinfection would be removed from the WRP 4 facility.

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 adhere to existing Hazardous Materials Business Plans (HMBPs) for the WRP 4 facility that require hazardous materials used for construction be used properly and stored in appropriate containers with secondary containment to contain a potential release. The California Fire Code also require measures for the safe storage and handling of hazardous materials. Construction contractors would be required to prepare a SWPPP for construction activities according to the 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. In addition, the transportation of hazardous materials would be regulated by the DOT, Caltrans, and the CHP. The required compliance with the numerous laws and regulations discussed above that govern the transportation, use, handling, and disposal of hazardous materials would ensure a less than significant impact.

Operation

Tertiary Treatment Facilities

Once constructed, the tertiary treatment facilities would no longer store and use chlorine gas for disinfection (Black & Veatch 2022). The treatment system would store and use sodium hypochlorite (for disinfection) and aluminum sulfate (alum; for coagulation), which are used as a water treatment chemicals to achieve tertiary levels of treatment. The chemicals would be stored in above ground storage tanks under a canopy alongside the necessary feed equipment. Upon completion of Phase 1, liquid 12.5 percent sodium hypochlorite solution would be stored in one 12-foot-diameter, 11-foot-high 9,307-gallon tank; up

to four tanks would be used upon completion of Phase 3. For all phases, 50 percent solution strength liquid alum would be stored in one 4-foot-diameter, 6-foot-high 750-gallon tank. The chemical storage and feed system would be in a concrete secondary containment area with sump pit. A truck unloading station would be included for both systems; the tank fill connections would be provided at the roadway with a spill containment area that drains to the sump pit. The HMBP for WRP 4 would provide a detailed description of procedures for the proper storage, use, and spill response, all in compliance with federal, state, and local regulations. With compliance with storage and use regulations, the proposed project would have a less than significant impact relating to this issue.

Pipelines

Once constructed, the pipelines would convey recycled water treated to tertiary treatment levels. The treated water would not be hazardous and no impact would occur.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Hazardous Materials Emissions Near Schools

Impact 3.8-2: Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Phase 1, 2, and 3

The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

There are no schools within 0.25 mile of the project site, including the WRP 4 facility and proposed pipelines. Moreover, the project would not emit hazardous emissions, and it would not handle hazardous materials in a manner that could impact any sensitive receptors. Therefore, no impact would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Hazardous Materials Sites

Impact 3.8-3: Would the proposed project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?

Phase 1, 2, and 3

The proposed project would not 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, create a significant hazard to the public or the environment. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

The project site is not located on, adjacent, or near a hazardous materials sites listed on Government Code Section 65962.5. As such, there would be no risk related to hazardous materials sites. Therefore, there no impact would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Airports

Impact 3.8-4: Would the proposed project result in a safety hazard or excessive noise for people residing or working in the project area residing within two miles of a public airport or public use airport?

Phase 1, 2, and 3

The proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area residing within two miles of a public airport or public use airport. Potential impacts would be less than significant.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

There are no airports within two miles of the WRP 4 facility. The northernmost extent of the irrigation pipelines are within about 0.5 miles of the end of the airport runway. However, the pipelines would be constructed underground and would not have above ground structures that could interfere with the airport navigable airspace. As such, there would be no risk to or from being located within two miles of an airport and the impact would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Emergency Response or Evacuation Plan

Impact 3.8-5: Would the proposed project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Phase 1, 2, and 3

The proposed project would include partial lane roadway closures and possibly disrupt or delay the response times of emergency responders. **Mitigation Measure TRA-1** would be implemented to reduce potential construction-related impacts to emergency response plans or emergency evacuation plans. Potential impacts would be less than significant with mitigation.

Construction and Operation

Tertiary Treatment Facilities

Construction and operation of facilities at WRP 4 would occur entirely within the existing facility footprint outside of public rights of way and would not interfere with evacuation routes. During construction, truck haul trips would transport construction equipment and materials to and from WRP 4; however, these trips would not impact the roadway in a way that would impede emergency evacuations. The truck trips would not require closure of any roadways and would only temporarily slow traffic near the project site. Project-related vehicles would not block existing street access to the sites. Therefore, no impacts related to an emergency evacuation plan would occur.

Operation of the proposed facilities would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan because all facilities would be constructed at the existing WRP 4 project site. The proposed facilities would require periodic maintenance activities, including, but not limited to, removal of accumulated sediment and debris, replacement of non-operational machinery, and inspection of structures. Maintenance activities would require minimal trips that would not significantly impact the surrounding roadways. Therefore, operation of the proposed aboveground facilities would have a less than significant impact to emergency response plans and emergency evacuation.

Pipelines

Construction activities associated with construction of the proposed pipelines route would occur primarily within local rights of way and may temporarily restrict vehicular traffic. The proposed project would include partial lane roadway closures in order to implement the proposed pipelines. Lane closures have the potential to increase traffic on local roads and intersections, block access to roadways or driveways, and possibly disrupt or delay the response times of emergency responders. During partial road closures, impacts on emergency responders would be limited, since passage through intersections would be maintained. Nevertheless, in order to ensure emergency access and safety on the local roadway network, Mitigation Measure TRA-1 (Refer to Section 3.12, *Transportation*) would require preparation of a Traffic Control Plan identifying specific traffic control measures and ensuring that appropriate emergency service providers are notified ahead of planned road closures. Therefore, impacts to emergency response and emergency evacuation planning during construction would be reduced to less than significant levels with implementation of mitigation.

Following construction, operation of the pipelines would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan as the pipelines would

be located underground. Maintenance activities would require minimal trips and would not significantly impact the surrounding roadways. Impacts to an adopted emergency plan or emergency evacuation plan during operation would be considered less than significant.

Mitigation Measures

Implement Mitigation Measure TRA-1 (See Section 3.12, *Transportation*)

Significance Determination

Less than Significant Impact with Mitigation

Wildland Fires

Impact 3.8-6: Would the proposed project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Phase 1, 2, and 3

Tertiary Treatment Facilities and Pipelines

The proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. No impact would occur.

The project site is in a desert with minimal vegetation and is not located within a very high fire hazard severity zone. As a result, no impact would occur to loss, injury, or death involving wildland fires.

Mitigation Measures

None Required

Significance Determination

No Impact

Cumulative Impacts

Impact 3.8-7: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to hazards and hazardous materials?

Phase 1, 2, and 3

Existing planning documentation outlined in Section 3.0.2, *Cumulative Impacts Methodology*, and in this section identifies local and regional plans that describe or evaluate regional or area wide conditions contributing to cumulative impacts. Planned residential development in the project area is slated for areas east of the Jacqueline Cochran Regional Airport in the community of Thermal, which is north of the proposed project area (County of Riverside 2021). The areas in the immediate vicinity of the proposed project are planned to be maintained as agricultural land. Any projects constructed or operated within the project area over the 20-year implementation timeframe would be required to comply with the applicable federal, state, and local regulations for the transportation, storage, use, and disposal of hazardous materials, similar to the proposed project and as discussed in Section 3.8.1, *Regulatory Framework*. Additionally, development projects would be required to implement traffic control plans similar to the proposed project's **Mitigation Measure TRA-1**, which would reduce impacts to a less than significant level. Further, the proposed project is consistent with all applicable land use planning

documents. As a result, impacts would not be cumulatively considerable and cumulative impacts would be less than significant with mitigation.

Mitigation Measures

Implement Mitigation Measure TRA-1.

Significance Determination

Less than Significant Impact with Mitigation

3.8.4 References

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State Water Resources Control Board and Department of Toxic Substance Control (SWRCB-DTSC), 2024. GeoTracker and EnviroStor view of WRP 4 area. February 1.

3.9 Hydrology and Water Quality

This section addresses the potential impacts related to hydrology and water quality associated with implementation of the proposed project. This section includes: a description of existing hydrology and water quality conditions for the project site and the surrounding area; a summary of applicable regulations related to hydrology and water quality; and an evaluation of the potential for the proposed project to result in environmental impacts related to the hydrology and water quality on the project site and in the surrounding project area including the Salton Sea. In addition, an evaluation of the potential cumulative impacts is provided. The analysis is supported by two technical studies that are appended to the EIR: *Modeling the Potential Effects of Flow Reductions from WRP 4 on Downstream Channel Hydrology and Riparian Vegetation* (**Appendix HYDRO-1**) and *Applying the Salton Sea Accounting Model (SSAM) to the CVWD WRP 4 Recycled Water Project* (**Appendix HYDRO-2**).

3.9.1 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 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 State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB). 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.

Section 303(d) – Total Maximum Daily Loads (TMDLs)

Section 303(d) requires states, territories, and authorized tribes to develop a list of water-quality limited segments of rivers and other water bodies under their jurisdiction. Those waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for waters on the list and develop action plans, called Total Maximum Daily Loads (TMDLs), to improve water quality. These are action plans designed to improve the quality of water resources. As part of the TMDL process, municipalities must examine the water quality problems and identify sources of pollutants in order to create specific actions designed to improve water quality.

Section 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 SWRCB issues both general and individual permits for discharges to surface waters, including for both point-source and non-point-source discharges. In response to the 1987 amendments, the US EPA developed the Phase I NPDES Storm Water Program for cities with populations larger than 100,000, and Phase II for smaller cities. In California, the SWRCB has drafted the General Permit for Discharges of Storm Water from Municipal Separate Storm Sewer Systems (MS4 General Permit).

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 contain 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 San Mateo County are described under State and local regulations.

Federal Emergency Management Agency (FEMA)

Under Executive Order 11988, the Federal Emergency Management Agency (FEMA) is responsible for management of floodplain areas defined as the lowland and relatively flat areas adjoining inland and coastal waters subject to a 1 percent or greater chance of flooding in any given year (the 100-year floodplain). FEMA’s overall mission is to support citizens and first responders to ensure that the United States builds, sustains, and improves capabilities to prepare for, protect against, respond to, recover from, and mitigate all hazards. With regard to flooding, FEMA provides information, guidance, and regulation associated with flood prevention, mitigation, and response. Under Executive Order 11988, FEMA requires that local governments covered by the federal flood insurance program pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year floodplain. Through its Flood Insurance and Mitigation Administration, FEMA manages the National Flood Insurance Program (NFIP), which includes flood insurance, floodplain management, and flood hazard mapping functions. FEMA determines flood elevations and floodplain boundaries and distributes the Flood Insurance Rate Mapping (FIRM) maps used in the NFIP. These maps identify the locations of special flood hazard areas, including 100-year floodplains.

Federal regulations governing development in a floodplain are set forth in the Code of Federal Regulations (CFR) Title 44, Part 60. Those regulations enable FEMA to require municipalities

participating in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Division 7 of the Water Code Sections 13000, et seq.) is the primary water quality control law in California. Porter-Cologne established the State Water Resources Control Board and divided the state into nine regional basins, each overseen by a RWQCB. The nine RWQCBs have the primary responsibility for the coordination and control of water quality within their respective jurisdictional boundaries. The Porter-Cologne Act requires the RWQCBs to establish water quality objectives while acknowledging that water quality may be changed to some degree without unreasonably affecting beneficial uses. Water quality objectives are limits or levels of water quality constituents or characteristics established for the purpose of protecting beneficial uses. Designated beneficial uses, together with the corresponding water quality objectives, also constitute water quality standards under the federal CWA. Therefore, the water quality objectives form the regulatory references for meeting state and federal requirements for water quality control. Designated beneficial uses for water bodies in the study area are described in the regional regulatory section (under Basin Plan discussion).

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 U.S. are 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 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 Construction General Permit 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 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 and 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 Construction General Permit. 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 Construction General Permit 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 Construction General Permit is implemented and enforced by the Colorado River RWQCB, which administers the stormwater permitting program. Dischargers must electronically submit a notice of intent and permit registration documents to obtain coverage under this Construction General Permit. Dischargers are to notify the RWQCB of violations or incidents of non-compliance, and submit annual reports identifying deficiencies in the BMPs and explaining how the deficiencies were corrected. Pursuant to the Construction General Permit, 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.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014, effective January 1, 2015, authorizes local agencies to manage groundwater in a sustainable manner and allows limited state intervention when necessary to protect groundwater resources. SGMA defined “sustainable groundwater management,” established a framework for local agencies to develop groundwater sustainability plans and implement strategies to sustainably manage groundwater resources, established basin prioritization (ranked from very

low to high priority), and set a 20-year timeline for implementation. Basins are prioritized under the SGMA by the California Department of Water Resources (DWR). The Indio Subbasin was ranked as a medium priority basin under the 2014 California Statewide Groundwater Elevation Monitoring basin prioritization process and maintained this ranking in the DWR's latest basin prioritization project effort in 2020. The subbasin is therefore subject to the requirements of SGMA.

To comply with SGMA adopted in 2014, the Indio Subbasin Groundwater Sustainability Agencies (GSAs), submitted the CVWMP 2010 Update as an Alternative to a Groundwater Sustainability Plan (GSP). DWR approved the "Alternative Plan" in 2019. As required by SGMA, the GSAs completed the required five-year update titled the *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan* (2022 WMP). The plan describes projects and management actions to be taken that include water conservation measures, acquisition of additional water sources, source substitution and replenishment programs, water quality improvements, and other studies and programs. The Project and Management Action (PMA) 18: WRP 4 Tertiary Expansion & Delivery is included in the 2022 WMP. The proposed project is therefore consistent with and supportive of the 2022 WMP goals of maintaining sustainability in the basin, meeting projected increases in water demands, and remaining resilient to climate change.

Recycled Water Policy

In February 2009, the SWRCB adopted Resolution No. 2009-0011, which established a statewide Recycled Water Policy. Draft amendments to the Recycled Water Policy were adopted by the SWRCB on 2013 and 2018. The Recycled Water Policy encourages increased use of recycled water and local stormwater to mitigate the effects of long term drought, climate change, and water supply uncertainty, in a manner that does not adversely impact water rights or unreasonably impair instream beneficial uses or place an unreasonable burden on present water supply systems.

Regional and Local

State Water Board Revised Order Water Rights Order (WRO) 2002-0013, WRO 2002-0016, WRO 2017-134 and Salton Sea Management Program Long-Range Plan

In 2017 the SWRCB issued Water Rights Order (WRO) 2017-134 which amended the previous WRO 2002-013 and WRO 2002-0016, clarifying the state's responsibility and commitment to managing the changing conditions at the Salton Sea in the interests of mitigating impacts to the natural environment and to public health resulting from the lowering elevation of the Sea. The WRO was enacted to comply with the Salton Sea Restoration Act, California Fish & Game Code section 2942 which provides that the Secretary of California Natural Resources Agency (CNRA) shall lead the state's efforts to restore the Salton Sea.

The Salton Sea Management Program Long-Range Plan (Long-Range Plan) was prepared to comply with WRO 2017-0134. Condition 26 of the WRO required the CNRA to issue a long-term plan no later than December 31, 2022; the public draft was issued in December 2022 and made final in 2024 (DWR and CDFW 2024). The area covered by the Long-Range Plan includes the Salton Sea, Coachella Valley, and Imperial Valley, along with all drainages into the Salton Sea.

The goal of the Long-Range Plan is to protect or improve air quality, water quality, and wildlife habitat to prevent or reduce health and environmental consequences anticipated from the long-term recession of the Salton Sea. To achieve this goal, the following objectives must be met:

- Protect or improve air quality to reduce public health consequences.
- Protect or improve water quality to provide opportunities for beneficial uses and reduce environmental consequences.
- Restore long-term stable aquatic and shoreline habitat to historic levels and diversity of fish and wildlife that depend on the Salton Sea.

The Long-Range Plan included modeling that analyzed the sustainable baseline conditions based on the anticipated reliable inflows into the Salton Sea, and then evaluated the technical aspects of various restoration concepts and scenarios. The methods of analysis included the projected hydrology (i.e., what is the reliably expected volume of future inflow), projected salinity and elevation, an evaluation of habitat and air quality, and a greenhouse gas analysis. These estimates of future inflows from the Coachella Valley include the reduction in WRP 4 discharges due to the proposed WRP 4 project.

Waste Discharge Requirements for Coachella Valley Water District, Mid-Valley Water Reclamation Plant No. 4, Order No. R7-2023-0013, NPDES Permit No. CA0104973

The WRP 4 is permitted under *Waste Discharge Requirements Order No. R7-2023-0013, NPDES Permit CA0104973, General Industrial Storm Water Permit, Coachella Valley Water District Mid-Valley Water Reclamation Plant No. 4* (RWQCB 2023). The Waste Discharge Requirements (WDR) describe the facility operation requirements, effluent limitations and discharge specifications and prohibitions, best management practices for pollution prevention, and reporting requirements. The WDRs specify that discharge from WRP 4 be treated to specific water quality objectives prior to discharge. All treated discharge is routed to one discharge point to the Coachella Valley Stormwater Channel (CVSC); there are no other approved discharge locations. The WDRs also require that all stormwater falling on the facility is to be captured and routed to an internal basin; stormwater is not allowed to runoff from the WRP 4 facility. This NPDES permit authorizes the facility to discharge a maximum monthly average daily effluent flow of 9.9 million gallons per day (MGD) to the CVSC. The annual average influent flows have remained relatively constant over the past few years, currently averaging approximately 5.7 MGD. WRP 4 uses two secondary treatment systems operating in parallel to provide carbonaceous biological oxygen demand (CBOD) and total settleable solids (TSS) reduction: a lagoon treatment system with a permit capacity of 7.0 MGD and an activated sludge treatment system with a permit capacity of 2.9 MGD. The effluent discharge limitations are discussed above in Section 3.9-2, *Environmental Setting, WRP 4*.

Low Threat Discharges General Order No. R7-2009-0300, NPDES Permit No. CAG997001

Low threat discharges, including dewatering effluent from construction projects, is regulated under RWQCB Order R7-2009-0300, NPDES CAG997001, *General Waste Discharge Requirements (WDRs) and General National Pollutant Discharge Elimination System (NPDES) Permit for Low Threat Discharges to Surface Waters within the Colorado River Basin Region*. This order was adopted November 19, 2009. The Order describes sampling requirements, effluent limitations and discharge specifications and prohibitions, best management practices for pollution prevention, and reporting requirements.

Water Quality Control Plan (Basin Plan)

The Water Quality Control Plan for the Colorado River Basin Region (Region 7) (Basin Plan) was prepared and adopted by the Colorado River Basin RWQCB in 1993. The planning area includes the Coachella Valley. The Basin Plan was updated with subsequent amendments and was readopted by the Regional Board in June 2006. The Basin Plan was prepared in accordance with the California Porter-Cologne Water Quality Control Act (California Water Code §13000 et seq.), the Federal Clean Water Act, and other state and federal rules and regulations. The plan provides guidelines for optimizing use of state waters within the Colorado River Basin Region by preserving and protecting the quality of these waters. The plan is reviewed periodically by the SWRCB and the USEPA and updated as necessary.

The various designated beneficial uses of water within Region 7 as described in the Basin Plan include municipal and domestic, agricultural, aquacultural and industrial supply; groundwater recharge; power generation; recreation; and preservation and enhancement of fish and wildlife habitat. The Basin Plan establishes water quality objectives to ensure the reasonable protection of these beneficial uses. The Basin Plan further describes the implementation programs, projects and actions necessary to achieve these water quality objectives. Policies and issues affecting the Basin Plan and activities related to monitoring and surveillance within the basin are also discussed. The Regional Board implements the Basin Plan by enforcing waste discharge requirements through permits.

County of Riverside Code and Development Regulations

The Riverside County Department of Building and Safety and the Riverside County Fire Department provide technical expertise in reviewing and enforcing the County Building and Fire Codes. These codes establish site specific investigation requirements, construction standards, and inspection procedures to ensure that development does not pose a threat to the health, safety, and welfare of the public. Through Ordinance 457 and Board of Supervisors Policy F-6, Riverside County prohibits grading without permits, levies penalties for illegal grading, and requires the restoration of illegally graded land to prevent off-site drainage and slope erosion. The following policy addresses code conformance and would be applicable to the proposed project:

Policy S 1.1: Mitigate hazard impacts through adoption and strict enforcement of current building codes, which will be amended as necessary when local deficiencies are identified.

Riverside County General Plan

The Riverside County General Plan contains the following policies related to hydrology and water quality that are applicable to the proposed project:

Land Use:

Policy LU 18.1: Emphasize and expand the use of recycled water in conjunction with local water agencies. Recycled water determined to be available pursuant to Section 13550 of the California State Water Code shall be used for appropriate non-potable uses whenever it: a) provides a beneficial use to the customer; b) is economically and technically feasible; c) is consistent with applicable regulatory requirements; and d) is in the best interests of public health, safety, and welfare. With the exception of non-common areas of single-family home residential developments, all other irrigation systems must be designed and installed to accommodate the current or future use of recycled water for irrigation. If no recycled water availability exists or is imminent in the vicinity of a project (as determined by prevailing water agency), all subsurface piping shall be installed as “recycled water ready” to reduce future retrofit costs. Such irrigation plans shall be developed in accordance with

standards and policies of the applicable recycled water purveyor. Recycled water systems shall be designed to meet regulatory requirements of the California Department of Public Health and the local recycled water purveyor.

Safety:

Policy S 4.1: For new construction and proposals for substantial improvements to residential and non-residential development within 100-year floodplains as mapped by FEMA or as determined by site-specific hydrologic studies for areas not mapped by FEMA, Riverside County shall apply a minimum level of acceptable risk; and disapprove projects that cannot mitigate the hazard to the satisfaction of the Building Official or other responsible agency.

Policy S 4.3: Prohibit construction of permanent structures for human housing or employment to the extent necessary to convey floodwaters without property damage or risk to public safety. Agricultural, recreational or other low intensity uses are allowable if flood control and groundwater recharge functions are maintained.

Policy S 4.4: Prohibit alteration of floodways and channelization unless alternative methods of flood control are not technically feasible or unless alternative methods are utilized to the maximum extent practicable. The intent is to balance the need for protection with prudent land use solutions, recreation needs and habitat requirements, and as applicable to provide incentives for natural watercourse preservation, including density transfer programs as may be adopted.

- a. Prohibit the construction, location or substantial improvement of structures in areas designated as floodways, except upon approval of a plan which provides that the proposed development will not result in any significant increase in flood levels during the occurrence of a 100-year flood discharge.
- b. Prohibit the filling or grading of land for nonagricultural purposes and for non-authorized flood control purposes in areas designated as floodways, except upon approval of a plan which provides that the proposed development will not result in any significant increase in flood levels during the occurrence of a 100-year flood discharge.

Policy S 4.5: Prohibit substantial modification to watercourses, unless modification does not increase erosion or adjacent sedimentation, or increase water velocities, so as to be detrimental to adjacent property, nor adversely affect adjacent wetlands or riparian habitat.

Policy S 4.8: Allow development within the floodway fringe, if the proposed structures can be adequately floodproofed and will not contribute to property damage or risks to public safety.

Policy S 4.9: Within the floodway fringe of a floodplain as mapped by FEMA or as determined by site-specific hydrologic studies for areas not mapped by FEMA, require development to be capable of withstanding flooding and to minimize use of fill. However, some development may be compatible within flood plains and floodways, as may some other land uses. In such cases, flood-proofing would not be required. Compatible uses shall not, however, obstruct flows or adversely affect upstream or downstream properties with increased velocities, erosion backwater effects or concentrations of flows.

3.9.2 Environmental Setting

Regional Setting

The proposed project is located within the 1.2-million-acre Coachella Valley, which is surrounded by the San Bernardino, San Jacinto, and Santa Rosa Mountains, as shown on **Figure 3.9-1** (MWH and Water Consult 2012). Natural surface water flow in the Coachella Valley occurs as a result of precipitation, precipitation runoff, and stream flow originating from the Little San Bernardino and San Jacinto Mountains, with lesser amounts from the Santa Rosa Mountains (Indio Subbasin GSAs 2021). This watershed runoff is diverted for use, conveyed as stormwater water runoff to the Salton Sea, infiltrates into the ground or streambeds, or is captured in mountain-front percolation basins where it recharges the groundwater basin. The 50-year hydrologic period from 1970 to 2019 had an annual average watershed runoff of 52,506 acre-feet per year (AFY), with approximately 43,300 AFY in natural infiltration when accounting for surface water diversions, evapotranspiration (ET) loss, and outflows to Salton Sea. Runoff during the 25-year period from 1995 to 2019 was below average, with 38,196 AFY in watershed runoff and 29,200 AFY in natural infiltration. This 25-year hydrologic period contained multiple drought cycles with below average rainfall (Indio Subbasin GSAs 2021).

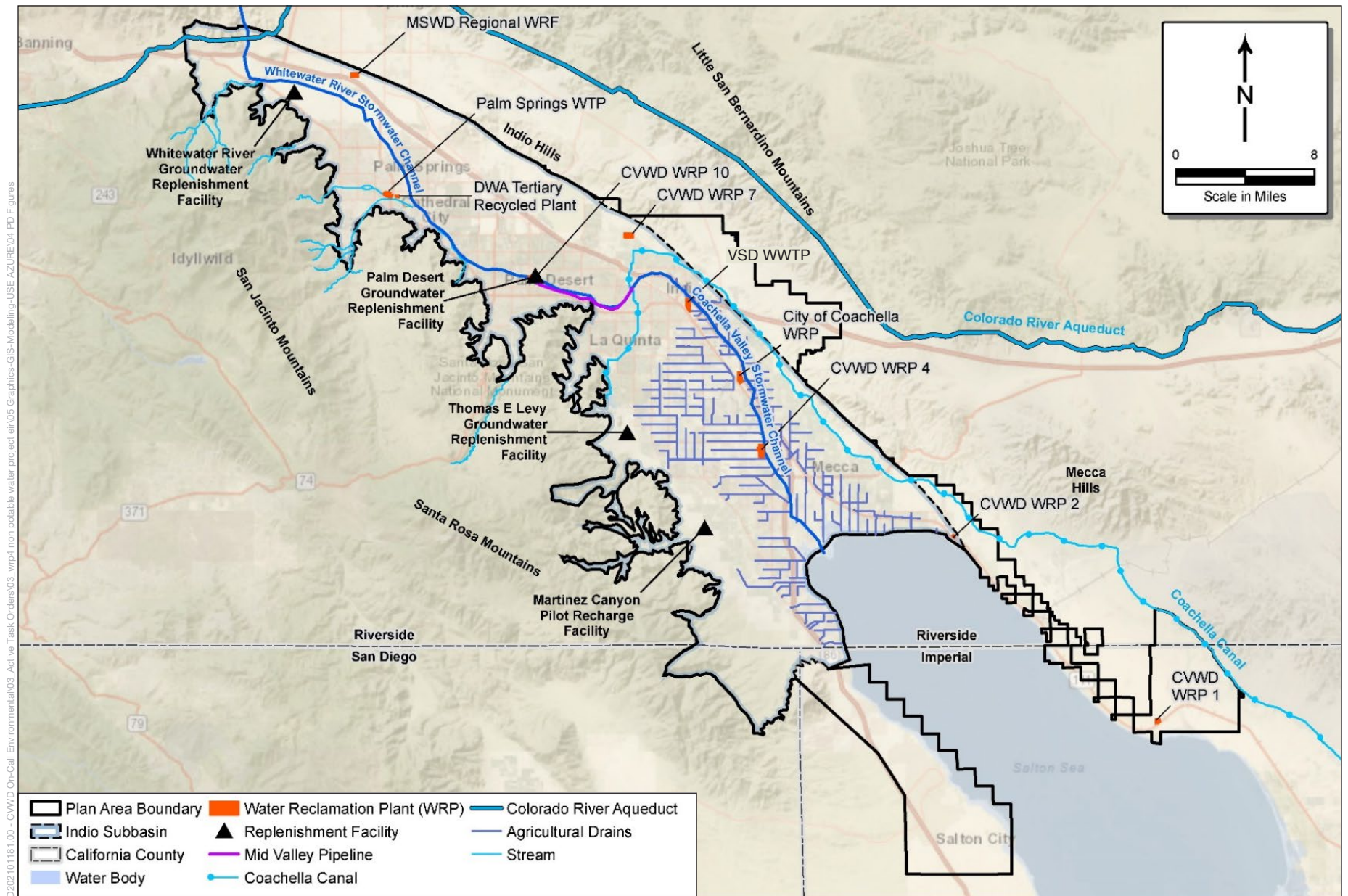
In addition to the natural surface water flow, the Coachella Valley also receives imported water from the Colorado River under the Quantification Settlement Agreement (QSA) signed in 2003 (see Section 3.9.1 *Regulatory Framework*, between San Diego County Water Authority [SDCWA], Imperial Irrigation District [IID], Metropolitan Water District of Southern California [MWD], and Coachella Valley Water District [CVWD] 2003). The QSA defined the rights to portions of Colorado River water for the San Diego County Water Authority (SDCWA), CVWD, IID, and MWD (WEF 2023) for a 75-year period. The QSA established a base entitlement of Colorado River water to the CVWD at 330,000 AFY. CVWD negotiated water transfer agreements with MWD and IID that increased CVWD supplies by an additional 123,000 AFY over time. CVWD's net QSA supply will increase to 424,000 AFY by 2026 and remain at that level until 2047, decreasing to 421,000 AFY until 2077, when the agreement terminates.

In addition, CVWD is a State Water Project Contractor with Table A allocations totaling 138,350 AFY. CVWD's State Water Project water is delivered through one-to-one exchanges of Colorado River water with MWD.

Local Setting

Surface Water Hydrology and Drainage

The surface water drainages and proposed project site discussed below are within the Coachella Subunit of the Whitewater Hydrologic Unit (RWQCB 2023). As shown on Figure 3.9-1, surface water drainages within the northern portion of the hydrologic unit drain into the Whitewater River Stormwater Channel (WRSC) beginning at approximately its crossing of Interstate 10. The WRSC joins the CVSC at approximately Washington Blvd. in La Quinta. The CVSC collects surface and subsurface water drainage and wastewater discharges from the southern portion of the hydrologic unit including storm flows from the Whitewater River, and conveys flows south to the Salton Sea. Additional smaller agricultural drains also drain some of the agricultural lands to the Salton Sea.



SOURCE: Todd Groundwater and Woodward Curran 2021

WRP 4 Project

Figure 3.9-1
Regional Water and Wastewater Facilities

Coachella Valley Stormwater Channel

The CVSC is an unlined engineered channel that conveys stormwater flows from the WRSC, stormwater runoff from surrounding areas, agricultural subsurface drainage, treated discharge from the Valley Sanitary District wastewater treatment plant in Indio (VSD WWTP, about nine miles north of WRP 4), treated discharge from the Coachella Sanitary District, and treated discharge from WRP 4 to the Salton Sea (see **Figure 3.9-2**). The Johnson Street drain feeds the CVSC about 5 miles downstream from WRP 4 and less than two miles from the Salton Sea. Below the Johnson Street drain, the CVSC widens into a delta before flowing into the Salton Sea.

The CVSC is approximately 17 miles long from the northern end where it connects with the WRSC and conveys surface water flows to its terminus at the Salton Sea. From the northern end of the CVSC to the VSD WWTP in Indio (see Figure 3.9-1), the CVSC is ephemeral (i.e., flow only occurs during and immediately after rain). Downstream of the VSD WWTP discharge point, the channel flow becomes perennial (i.e. continuous flow throughout the year), with a narrow low flow channel and riparian corridor that extends all the way to the Salton Sea.

Irrigation Network

The existing gravity-fed irrigation system draws Colorado River water from the Coachella Canal, as shown on Figure 2-2 in Chapter 2, *Project Description*. Farmers receive irrigation water primarily from the Colorado River, with some irrigation water coming from private groundwater wells.

WRP 4

WRP 4 is CVWD's second largest wastewater reclamation plant and is located along the west side of the CVSC about 7-½ miles upstream of the Salton Sea (see Figure 3.9-2). WRP 4 provides service to approximately 63,000 people in the City of La Quinta, a portion of the City of Palm Desert, and the unincorporated areas of Mecca and Thermal. The facility is permitted under a NPDES WDR permit (see Section 3.9.1, *Regulatory Framework, Local*) to discharge a maximum monthly average daily effluent flow of 9.9 MGD to the CVSC (RWQCB 2023). The annual average influent flows have remained relatively constant over the past few years, currently averaging approximately 5.7 MGD. WRP 4 uses two secondary treatment systems operating in parallel to provide carbonaceous biological oxygen demand and total settleable solids reduction, a lagoon treatment system with a permit capacity of 7.0 MGD, and an activated sludge treatment system with a permit capacity of 2.9 MGD, for a total 9.9 MGD treatment capacity. The treated water is discharged to the CVSC at a location adjacent to WRP4 (NPDES point of discharge EFF-003).



SOURCE: ESA, 2023

WRP 4 Project

A water budget for the CVSC downstream of WRP 4 was developed using data from monitoring locations immediately upstream (RSW-001) and downstream (RSW-002) of the facility (see Figure 3.9-2), showing the contribution of treated water discharged from WRP 4 to overall CVSC flows (ESA 2024 and provided in Appendix HYDRO-1). For the period from 2018 to 2023, the mean flow upstream of WRP 4 was 25.1 cubic feet per second (cfs) and the mean flow immediately downstream was 32.8 cfs, indicating a mean WRP 4 discharge of 7.7 cfs. Mean flow at the USGS gauge (located at Lincoln Street about five miles downstream of WRP 4) was 65.6 cfs, indicating that on average, 32.8 cfs of additional flow enters the CVSC downstream of WRP 4 from other sources, doubling its flow. Baseflows are relatively steady between rainfall-driven peak flow events: the standard deviation in flows upstream and downstream of WRP 4 is between 3 and 4 cfs, and the minimum flow measured above WRP 4 between 2018 and 2023 was 18.3 cfs. The minimum flow recorded at the USGS gauge was 40.2 cfs for the period from 2018 to 2023. WRP 4 discharge accounts for 23 percent of mean baseflow in the CVSC immediately downstream of WRP 4, and 12 percent of mean baseflow at Lincoln Street, close to the Salton Sea. Additional flows enter the CVSC downstream of the USGS gauge from the Johnson Street drain. All stormwater falling on WRP 4 is captured and routed to an onsite infiltration basin, where the stormwater infiltrates down into the subsurface (RWQCB 2023).

Salton Sea

The Salton Sea is the largest lake in California, measuring approximately 35 miles long and 9 to 15 miles wide with about 360 square miles of water surface area and 120 miles of shoreline. The Salton Sea lies in a geographic depression known as the Salton Basin located approximately 278 feet below mean sea level. Although large seas have cyclically formed and dried in the basin throughout time due to natural flooding from the Colorado River, the current Sea was formed when Colorado River floodwater breached an irrigation canal that was being constructed in the Imperial Valley in 1905 and flowed into the Salton Basin. The hydrology to the Sea has since been maintained by irrigation return flows from the Imperial and Coachella valleys and local rivers and flood control channels. Because the Sea is a terminal lake, increasingly concentrated salts have resulted in salinity that is approximately twice that of the ocean (USACE 2022).

In response to the QSA and to comply with subsequent SWRCB Water Rights Orders (see Section 3.9.1 *Regulatory Framework*) the CNRA in collaboration with DWR and California Department of Fish and Wildlife (CDFW) prepared a Salton Sea Management Plan (SSMP). The SSMP included a Phase 1, 10-year Plan to establish at least 14,900 acres of aquatic habitat and up to 14,900 acres of dust suppression projects by the year 2028.

The SSMP Team subsequently prepared the Salton Sea Long-Range Plan to address long-term impacts from Colorado River water conservation efforts as required by the Salton Sea Restoration Act. The goal of the Salton Sea Long-Range Plan is to protect and improve air quality, water quality, and wildlife habitat; and to prevent or reduce health and environmental consequences anticipated from the long-term recession of the Salton Sea shoreline. To achieve these goals, the Long-Range Plan requires the following three objectives be met:

1. Protect or improve air quality to reduce public health consequences.
2. Protect or improve water quality to provide opportunities for beneficial uses and reduce environmental consequences.

3. Restore long-term stable aquatic and shoreline habitat to historic levels and diversity of fish and wildlife that depend on the Salton Sea. (DWR and CDFW 2024)

The SSMP and Long-Range Plan identify dust suppression projects and habitat restoration projects around the perimeter of the Sea designed to achieve these objectives to the extent feasible.

Notwithstanding these efforts, the Sea is expected to continue to recede through 2045, becoming saltier with an increasing area of exposed lakebed.

To inform the development of the various future scenarios, the Salton Sea Long-Range Plan identified baseline conditions, including average inflows into the Salton Sea from all sources from 2015 to 2021, which are summarized below in **Table 3.9-1**.

TABLE 3.9-1
SUMMARY OF AVERAGE INFLOWS INTO SALTON SEA 2015-2021 (AFY)

Imperial Valley Gauged Flow	Imperial Valley Ungauged Flow	Mexico Flows	CVSC Gaged	Coachella Valley Drains	Local Watershed	Groundwater	Total Inflow to Salton Sea
853,000	76,800	66,100	47,200	30,600	4,680	11,900	1,090,000

Notes: All units in acre-feet per year
Source: Table 3-1 in DWR and CDFW 2024

As previously noted, the volume of flow of treated effluent from WRP 4 is approximately 5.7 MGD, or approximately 6,389 acre-feet per year. Given the above-cited total annual inflow into the Salton Sea, the annual average discharge of treated effluent from WRP 4 to the Salton Sea is 0.58 percent of the total annual average inflow into the Salton Sea. The Long-Range Plan recognizes that the primary driver of Salton Sea inflow comes from Imperial Valley, not Coachella Valley where the WRP 4 is located. Notably, the Long-Range Plan provides that from 2015 to 2021, Imperial Valley contributed an estimated 85 percent of the inflows to the Salton Sea. The Long-Range Plan further elaborates that this “is a clear indicator the Colorado River water allocations and management of that water source in Imperial Valley are the primary drivers of Salton Sea inflow.” (DWR and CDFW 2024)

The Long-Range Plan evaluates various concepts to achieve its above-described objectives with reference to the “expected average annual inflow” to the Salton Sea in the future, taking climate change into account. This expected average annual inflow to the Salton Sea, characterized in the Long-Range Plan as the “High Probability Inflow,” is estimated by the Long-Range Plan to be 889,000 AFY by the year 2045.

Surface Water Quality

As previously noted, the CVSC is the constructed extension of the WRSC and is the drainage destination for irrigation return flows, stormwater runoff from urban and rural areas, and treated community wastewater. The CVSC terminates at the Salton Sea.

Surface water and groundwater quality within the Coachella Valley is under the jurisdiction of the Colorado River RWQCB, which has established water quality standards for surface waters and groundwaters within the region in the Colorado River Basin Water Quality Control Plan, also referred to as the Basin Plan (Ecorp 2022). Receiving water bodies within the region include the Salton Sea,

Coachella Valley agricultural drains, and the CVSC. Receiving waters are potentially subject to both point source and non-point source pollutant discharges that can affect water quality. Point source discharges come from a specific facility, such as a wastewater treatment plant or industrial facility. Nonpoint discharges come from many different sources including stormwater and snowmelt. The types of pollutants vary depending on land uses in the watershed.

Water quality impairments within the region have been identified for beneficial uses of assessed water bodies in accordance with Section 303(d) of the Clean Water Act (see Section 3.9.1, *Regulatory Framework, Federal*). The assessed receiving waterbodies for the 2018 Integrated Report within the project area include: the CVSC and the Salton Sea. Waterbodies that exceed water quality standards for pollutants based on collected data and cannot support assigned beneficial uses are recommended for listing on the 303(d) list. When a water body is added to the list, the RWQCB staff are required to identify a specific control plan to account for all sources of the pollutant that caused the waterbody to be listed. This plan is known as a Total Maximum Daily Load (TMDL) limit for each pollutant. The current 303(d) list (2020-2022) was approved by the SWRCB on January 19, 2022, and the USEPA on May 11, 2022 (SWRCB 2022). The CVSC and Salton Sea are listed as impaired for the following parameters:

- CVSC - DDT (dichlorodiphenyltrichloroethane), Dieldrin, dissolved oxygen, disulfoton, indicator bacteria, ammonia, PCBs (polychlorinated biphenyls), toxaphene, and toxicity
- Salton Sea - arsenic, chloride, chlorpyrifos, DDE (dichlorodiphenyldichloroethylene), DDT, enterococcus, low dissolved oxygen, ammonia, nutrients, salinity, and toxicity

The discharge requirements for WRP 4 are described in the 2023 NPDES WDR permit issued by the Colorado River RWQCB (see Section 3.9.1, *Regulatory Framework, Local*) and are summarized below in **Table 3.9-2** for the activated sludge treatment system, for the lagoon treatment system, and for the combined flow from all treatment systems.

TABLE 3.9-2
WRP 4 EFFLUENT LIMITATIONS – DISCHARGE POINT

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous minimum	Instantaneous Maximum
Flow	mgd	9.9	--	--	--	--
pH	Standard Units	--	--	--	6.0	9.0
4,4-DDT	ug/L	0.00059	0.00118	--	--	--
4,4-DDT	lbs/day	0.000049	0.0001	--	--	--
Total Residual Chlorine	mg/L	0.01	--	--	--	0.02
Escherichia Coli (E. Coli)	MPN/100 ml	126	--	400	--	--
Oil and Grease	mg/L	--	--	25	--	--
Oil and Grease	lbs/day	--	--	2065	--	--

Notes:

mgd = million gallons per day, ug/L = micrograms per liter, lbs/day = pounds per day, mg/L = milligrams per liter, MPN/100 mL = Most Probable Number per 100 milliliters

Source: RWQCB 2023

The CVWD conducts water quality sampling at a number of locations. Sample locations relative to WRP 4 include just upstream of WRP 4 (RSW-001), the WRP 4 effluent to the CVSC (EFF-003), and just downstream of WRP 4 (RSW-002) (see Figure 3.9-2) (CVWD 2024).

The CVSC and the Salton Sea are both listed for DDT, an organochlorine pesticide. Although the WRP 4 WRD permit allows discharge of low level of DDT, the 2023 testing results of the effluent did not detect DDT above reporting limits. The levels of dissolved oxygen and pH remained within the WDR permit discharge range of 6 to 9.

The results of testing for nutrients from samples collected in 2023 are summarized below in **Table 3.9-3**. Note that the Salton Sea has been listed as impaired for nutrients and the CVSC has been listed as impaired for nitrogen as ammonia, a form of nitrogen nutrients. The table is organized by channel flow direction from upstream to effluent discharge to downstream to show the effect of discharging WRP 4 effluent to the CVSC. As shown, the discharge of WRP 4 effluent can contribute to the water quality of the CVSC and ultimately the Salton Sea, by increasing the concentration of nutrients in water in the CVSC.

**TABLE 3.9-3
NUTRIENT CONCENTRATIONS**

Date	Nitrite (NO ₂ -N)	Nitrate (NO ₃ -N)	Ammonia	Total Nitrogen	Orthophosphorus	Total Phosphorous
RSW-001 (Upstream)						
2/7/2023	0.40	7.5	2.5	11	0.59	0.84
4/4/2023	0.10	7.6	1.5	9.9	0.5	0.85
7/6/2023	<0.10	12	0.1	12	0.6	1.4
10/3/2023	0.30	7.8	0.7	9.8	0.1	0.8
EFF-003 (WRP 4 Effluent)						
2/7/2023	ND	22	1.8	25	3.7	4.5
4/4/2023	0.10	21	1.7	26	4.5	5.0
7/6/2023	<0.10	21	0.6	23	4.4	5.0
10/3/2023	<0.10	21	0.7	25	3.7	4.3
RSW-002 (Downstream)						
2/7/2023	0.20	12	2.0	16	1.4	2.0
4/4/2023	0.10	11	1.6	14	0.60	2.0
7/6/2023	<0.10	14	0.3	14	1.50	2.1
10/3/2023	0.20	9.9	0.7	12	0.72	1.3

Notes:

All concentrations in milligrams per liter

Bold numbers indicate increased concentration in effluent and downstream waters relative to the upstream waters

Source: CVWD 2024

Groundwater

Figure 3.7-1 in Section 3.7, *Geology and Soils*, presents a generalized stratigraphic column of the Thermal Subarea showing local geologic units and groundwater zones (Indio Subbasin GSAs 2021). As illustrated, the hydrostratigraphy is characterized by the following:

- Recent (present to 11,700 years before present) silts, clays, and fine sands that form a shallow semi-perched and confining zone¹ up to 100 feet thick.
- Older alluvium (upper Pleistocene and older than 11,700 years before present) consisting of mostly gravels and sands with some sandy silt or sandy clay, that form 150 to 300 feet of unconfined (water table) conditions of the upper aquifer.²
- Upper portions of the Pleistocene (11,700 to 2.6 million years before present) Ocotillo Conglomerate clay with some sand and sandy silt that forms a 100- to 200-foot-thick semi-confining aquitard.
- The Pleistocene Ocotillo Conglomerate consisting of up to 12,000 feet of silty sands and gravels with interbeds of silt and clay that form confined and artesian aquifer conditions.

A geotechnical investigation conducted for the project drilled four borings to 51.5 feet below the ground surface (bgs) (Converse 2021). The borings encountered a mixture of sand, silt and occasional layers or lenses of silty clay. Based on the borings and historical groundwater data, the depth to groundwater ranges from about 8 to 12 feet bgs.

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 FEMA, through its 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. The project site is mapped within the 100-year flood plain (Zone AE) at base flood elevations ranging from -159 to -167 NAVD 88 at the WRP 4 (FEMA 2018).

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 proposed project is about 100 miles east of the Pacific Ocean, too far away to be susceptible to tsunamis.

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 Salton Sea is the nearest large water body that could be subject to a seiche. However, the WRP 4 and the irrigation pipelines the proposed project would supply are about 7 miles

¹ A confining zone or aquitard is an underground layer of geologic materials that limits the movement of groundwater to deeper zones.

² An aquifer is an underground layer of permeable geologic materials that can store and yield groundwater to wells.

northwest of the Salton Sea, too far to be subject to impacts from a seiche. In addition, the Salton Sea is relatively shallow and would not likely cause a substantial wave (Ecorp 2022).

Water Management Planning in Coachella Valley

Sanitation Master Plan

The Sanitation Master Plan Update 2020 provides a long-term, comprehensive capital improvement program (CIP) consisting of recommendations to refurbish or replace existing assets, optimize operations, and satisfy projected capacity needs of all sanitation facilities, including gravity pipelines, force mains, lift stations, and the five WRPs to be implemented between 2020 to 2040 in CVWD's service area. The funding, scheduling, and detail for each project is subject to individual approval by CVWD. CVWD prepared a Program EIR for the Sanitation Master Plan Update 2020 (SCH No. 2019090307) per CEQA Guidelines Section 15168.

Coachella Valley Water Management Plan

To address historical overdraft in the Coachella Valley, CVWD prepared the 2002 Coachella Valley Water Management Plan (CVWMP) for the Indio Subbasin, which was subsequently updated in 2010 (CVWMP 2010 Update). The CVWMP 2010 Update introduced several key strategies to manage the region's water resources sustainably. These strategies included groundwater replenishment, which involves artificially recharging aquifers with imported water to offset the groundwater extracted for use; source substitution, which consists of providing the development of alternative water sources such as recycled water or Canal water to reduce groundwater pumping; and conservation programs for urban, agricultural, and golf course users to more efficiently use available water resources. Several activities were planned to maximize the use of recycled water for irrigation from existing wastewater and future growth flows. One significant project under the CVWMP 2010 Update was the development of recycled water and construction of tertiary treatment and distribution facilities at WRP 4 for this purpose.

2022 Indio Subbasin Water Management Plan Update

To comply with SGMA adopted in 2014, the Indio Subbasin GSAs submitted the CVWMP 2010 Update as an Alternative to a GSP. DWR approved the Alternative Plan in 2019. As required by SGMA, the GSAs completed the 2022 WMP, which was approved by DWR in June 2024. The updated plan includes considerations of the impacts of climate change on water supply reliability. It continues to focus on groundwater replenishment, source substitution, and conservation to meet the region's water needs. The 2022 WMP includes simulations of future Coachella Valley subsurface drain flows for the management scenarios. The groundwater model subsurface drains flows are validated with CVSC gage data and drain flow monitoring data collected by CVWD. The WRP 4 project is included as PMA 18 under the Source Substitution and Replenishment category and remains a critical component of the plan.

3.9.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to hydrology and water quality. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - result in substantial erosion or siltation on- or off-site;
 - 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.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
- Result in cumulatively considerable impacts to hydrology and water quality.

Impact Analysis

Water Quality

Impact 3.9-1: Would the proposed project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Phases 1, 2, and 3

The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Potential impacts would be less than significant.

Construction

Tertiary Treatment Facilities and Pipelines

Construction of the proposed project would involve ground-disturbing earthwork including soil excavation and filling, trenching, and grading. During construction, heavy equipment such as bulldozers, graders, earth movers, heavy trucks, trenching equipment and other machinery is likely to be used. Such machinery could contribute pollutants to stormwater runoff in the form of sediment and other pollutants

such as fuels, oil, lubricants, hydraulic fluid, or other contaminants. This activity, however, will not violate any water quality standards or waste discharge requirements, and it would not otherwise substantially degrade surface or ground water quality.

Notably, construction of the project would be subject to the NPDES Construction General Permit, as the project would disturb more than one acre of land surface. The Construction General Permit regulates stormwater discharges associated with construction and demolition activities, such as clearing and excavation, to ensure that the project (1) will not violate any water quality standards or waste discharge requirements, and (2) will not otherwise substantially degrade surface or ground water quality. As discussed in Section 3.9.1, *Regulatory Framework, State*, the Construction General Permit requires the preparation and implementation of a SWPPP, which will require the implementation of specific BMPs designed to control and reduce soil erosion, to prevent sediment and pollutants from contacting stormwater and from moving off site into receiving waters, and to ensure pollutant discharges during construction and post-construction activities are less than significant. The BMPs may include storm water runoff quality control measures such as silt fences, straw wattles, detention basins, and other runoff control measures; watering for dust control; and other BMPs.

The SWPPP must be prepared before construction begins, and the Construction General Permit requires routine inspection of BMPs to ensure that construction does not substantially degrade surface or ground water quality. Compliance with the Construction General Permit requirements to control runoff would ensure that impacts related to the release of sediment and other pollutants would be less than significant.

Operation CVSC

The proposed project would reduce the discharge of treated water from WRP 4 from an average of 5.7 MGD to zero over the three phases of the project (see Appendix HYDRO-1). The Salton Sea has been listed as a 303(d) impaired waterway for nutrients and ammonia, and the CVSC has been listed as impaired for ammonia. This impairment is largely due to the nature of the sources of water to the CVSC and Salton Sea that include secondary-treated WRP discharges, urban runoff and agricultural return flows. As noted in Table 3.9-3, the effluent discharge from WRP 4 contains nutrients that contribute to loading in the CVSC and Salton Sea. Therefore, by eliminating the effluent discharge to the CVSC, the water quality in the CVSC would incrementally improve, which would be a beneficial impact.

Pipelines

Once constructed, the newly constructed pipelines would be underground with the ground surface restored to existing conditions. Therefore, operations of the pipelines would result in a less than significant impact relating to water quality.

Salton Sea

The proposed project would cease to discharge treated effluent to the CVSC over time, which would reduce nutrient loading to the Salton Sea. As a result, the proposed project would not degrade water quality at the Salton Sea but rather would result in improved water quality compared to existing nutrient loading rates.

With respect to salinity, the Salton Sea is currently almost twice the salinity of ocean water. This salinity will increase over time due to evaporation and reduced cumulative inflows with or without the proposed

project. The proposed project would reduce inflows to the Salton Sea by up to 0.58 percent compared to current cumulative inflows. **Table 3.9-4** summarizes results from the SSAM analysis included in Appendix HYDRO-2 for the year 2045. **Table 3.9-5** shows the results of the SSAM analysis after implementation of each Phase of the proposed project. **Figure 3.9-3** presents the data in graphic layout. As summarized in Table 3.9-4, the cessation of WRP 4 discharges, which are far less saline than the Salton Sea, would accelerate the anticipated increase in salinity of the Salton Sea by a small amount (~2,188 ppm by 2045; see Tables 6 and 7 in Appendix HYDRO-2; ESA 2025). However, this minor effect to salinity would not constitute a significant impact of the project, since it reflects a very small portion (~3%) of the estimated cumulative salinity increase of approximately 70,000 ppm by 2045 as shown in Figure 3.9-3. Impacts to water quality of the Salton Sea resulting from the proposed project would be less than significant.

TABLE 3.9-4
COMPARISON OF SSAM RESULTS FOR YEAR 2045

Scenario	Inflow (AFY)	Salinity (PPM)
Comparison of Existing Coachella Valley Inflows with and Without WRP 4 Project		
Coachella Valley Existing Inflows	896,438	153,649.0
Coachella Valley Existing Inflows with WRP 4 Project	890,053	155,836.6
Difference	-6,385	-2,188
Comparison of Coachella Valley Inflows with WRP 4 Project with Long-Range Plan Estimate		
Coachella Valley Existing Inflows with WRP 4 Project	890,053	155,836.6
Long-Range Plan Estimates	889,438	155,968.4
Difference	+615	-131.8
Source: Appendix HYDRO-2		

TABLE 3.9-5
COMPARISON OF COACHELLA VALLEY EXISTING INFLOWS WITH AND WITHOUT WRP 4 PROJECT
AFTER EACH PHASE IMPLEMENTATION DATE

	Inflow (AFY)	Salinity (PPM)
Phase 1 (2028)		
Coachella Valley Inflow Existing Condition	1,002,893	98,038.9
Coachella Valley Inflow Existing Conditions with WRP 4 Project	1,001,773	98,069.0
Difference	-1,120	30
Phase 2 (2031)		
Coachella Valley Inflow Existing Condition	957,270	105,882.4
Coachella Valley Inflow Existing Conditions with WRP 4 Project	954,470	106,067.4
Difference	-2,800	185

	Inflow (AFY)	Salinity (PPM)
Phase 3 (2036)		
Coachella Valley Inflow Existing Condition	896,438	125,340.5
Coachella Valley Inflow Existing Conditions with WRP 4 Project	890,053	126,128.8
Difference	-6,385	788.3
Source: Appendix HYDRO-2		

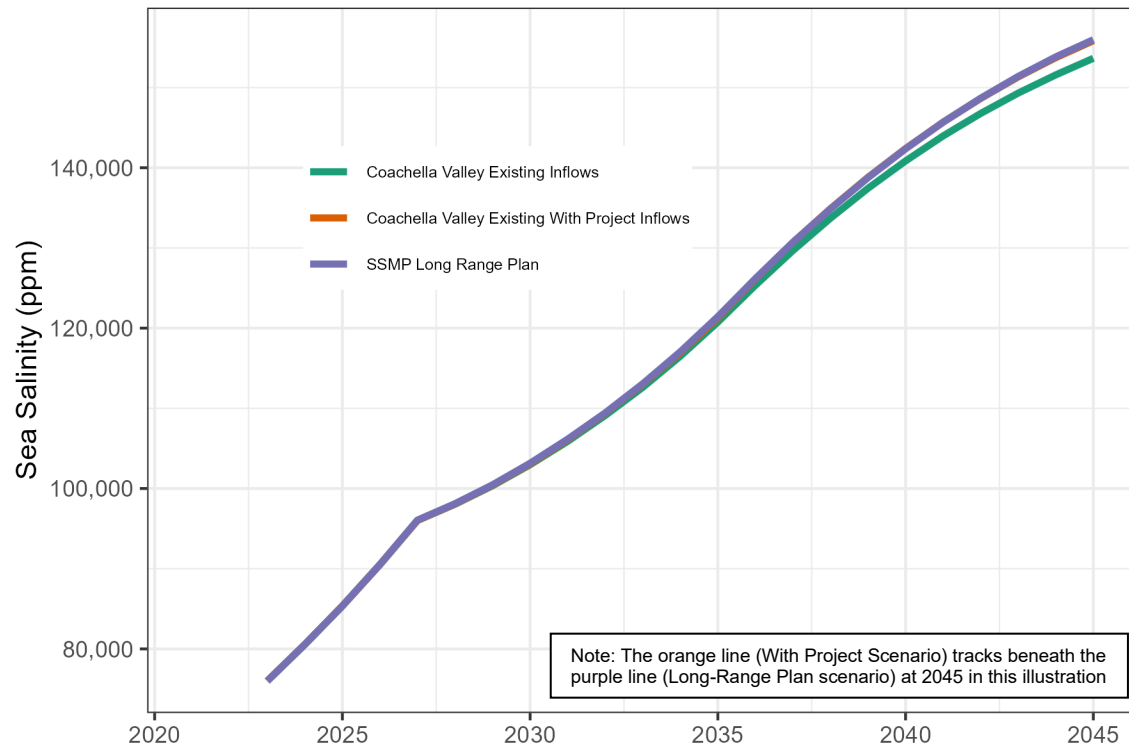


Figure 3.9-3
Modeled Estimates of Salton Sea Salinity (ppm)

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Aquifer Volume and Groundwater Levels

Impact 3.9-2: Would the proposed project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Phases 1, 2, and 3

The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project could impede sustainable groundwater management of the basin. Potential impacts would be less than significant.

Construction

All stormwater falling on the WRP 4 currently is and, with implementation of the proposed project will continue to be, routed to an onsite unlined infiltration basin; stormwater would continue to infiltrate into the subsurface, as it does now. All pipelines would be installed within existing rights of way and would not significantly add impervious surfaces to the project area. Any water needed for dust suppression would be supplied by water trucks and would not deplete groundwater supplies. The proposed project would not involve groundwater extraction or require increased use of groundwater supplies during construction. As a result, impacts would be less than significant.

Operation

Once constructed, the WRP 4 facility and pipelines would not require the use of groundwater and would not include the addition of new impervious surface that could interfere with recharge. The proposed project would not involve groundwater extraction or require increased use of groundwater supplies. Currently, agricultural activities utilize both groundwater and imported water conveyed from the Coachella Canal. Recycled water used for agriculture may reduce groundwater pumping currently used for irrigation in the area. Therefore, the proposed project would not increase use of groundwater supplies and there would be no impact.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Drainage Patterns

Impact 3.9-3: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: result in substantial erosion or siltation on- or offsite; 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?

Phases 1, 2, and 3

The proposed project would not substantially alter the existing drainage patterns of the area. Potential impacts relating to this issue would be less than significant.

Construction

The proposed upgrades at WRP 4 would occur within or adjacent to the existing facility and would not cross or alter any drainages. Repurposed and new pipelines would occur in existing pipeline alignments or roadways and would not cross or alter drainage patterns. Therefore, relative to the alteration of drainage patterns, there would be no impact.

Operation

Tertiary Treatment Facilities

The proposed project would reduce flows in the CVSC. To evaluate the effect of flow reductions from WRP 4 on downstream hydrology and vegetation, a flow study was conducted comparing flow width and depth in the CVSC using a hydraulic model of the CVSC. The results of the model are included in Appendix HYDRO-1. The model simulates the CVSC from East Vista Chino (located about 26 miles upstream and northwest of WRP 4) to the Salton Sea. The model compared existing measured flows with post-project flows at two locations: immediately downstream of WRP 4 (RSW-002) and at the Lincoln Street USGS gauge (see Figure 3.9-2).

The results of the flow modeling are summarized in **Tables 3.9-6 through 3.9-9**; details of the hydraulic modeling are presented in the modeling report (see Appendix HYDRO-1). The results of the model show that Phases 1 and 2 of the proposed project would have almost undetectable effects on flow depth: a few hundredths of a foot at most locations in Phase 1 for flow volumes immediately downstream of WRP 4, and less than a tenth of a foot on average for Phase 2. The effect would be even smaller further downstream, as more watershed flow inputs dilute the effect of the WRP 4 flow reduction. Phase 3 would lower water levels by just over a tenth of a foot on average based on flows at WRP 4, and by less than a tenth of a foot on average based on flows near the Lincoln Street USGS gauge. In the area downstream of the Lincoln Street Gauge, the CVSC widens into an estuary delta area. In this area as well as in the Salton Sea, the change in depth would be even less. These reductions in average flow depths would not alter the drainage in a manner that would increase erosion, flooding, or conveyance capacity. The remaining flow in the channel would follow the low flow channel as is currently the case and would not result in morphological impacts that could increase erosion or move flows out of the improved channel. Impacts would be less than significant.

**TABLE 3.9-6
EXISTING AND PROJECTED DEPTHS DOWNSTREAM OF WRP 4 (FEET)**

Channel XS Station	Existing Conditions	Phase 1		Phase 2		Phase 3	
	Depth	Depth	Change	Depth	Change	Depth	Change
XS-1	2.28	2.23	-0.05	2.16	-0.12	2.03	-0.25
XS-2	0.86	0.83	-0.03	0.8	-0.06	0.75	-0.11
XS-3	0.65	0.63	-0.02	0.6	-0.05	0.54	-0.11
XS-4	0.41	0.39	-0.02	0.36	-0.05	0.31	-0.10
XS-5	0.32	0.32	-0.00	0.30	-0.02	0.28	-0.04
Average	1.20	1.18	-0.03	1.14	-0.06	1.08	-0.13
Percent Change			-2 %		-5 %		-11 %

Notes: All depths and changes in feet. Channel XS station locations shown on Figure 3.9-2

Source: Appendix HYDRO-1

**TABLE 3.9-7
EXISTING AND PROJECTED FLOW WIDTHS AT LINCOLN STREET GAUGE (FEET)**

Channel XS Station	Existing Conditions	Phase 1		Phase 2		Phase 3	
	Depth	Depth	Change	Depth	Change	Depth	Change
XS-1	3.06	3.04	-0.02	2.99	-0.07	2.91	-0.15
XS-2	1.29	1.27	-0.02	1.23	-0.06	1.17	-0.12
XS-3	0.99	0.98	-0.01	0.96	-0.03	0.92	-0.07
XS-4	0.73	0.72	-0.01	0.70	-0.03	0.66	-0.07
XS-5	0.46	0.45	-0.01	0.44	-0.02	0.43	-0.03
Average	1.62	1.60	-0.02	1.57	-0.04	1.53	-0.09
Percent Change			-1 %		-3 %		-5 %

Notes: All depths and changes in feet. Channel XS station locations shown on Figure 3.9-2

Source: Appendix HYDRO-1

**TABLE 3.9-8
EXISTING AND PROJECTED DEPTHS DOWNSTREAM OF WRP 4 (FEET)**

Channel XS Station	Existing Conditions	Phase 1		Phase 2		Phase 3	
	Top Width	Top Width	Change	Top Width	Change	Top Width	Change
XS-1	26.86	26.79	-0.07	26.68	-0.18	26.49	-0.37
XS-2	30.73	30.57	-0.16	30.32	-0.41	29.88	-0.85
XS-3	41.61	41.54	-0.07	41.42	-0.19	41.2	-0.41
XS-4	59.96	59.91	-0.05	59.83	-0.13	59.7	-0.26
XS-5	271.7	268.1	-3.60	262.54	-9.16	252.83	-18.87
Average	65.40	64.68	-0.72	63.61	-1.79	61.71	-3.69
Percent Change			-1 %		-3 %		-6 %

Notes: All depths and changes in feet. Channel XS station locations shown on Figure 3.9-2

Source: Appendix HYDRO-1

**TABLE 3.9-9
EXISTING AND PROJECTED FLOW WIDTHS AT LINCOLN STREET GAUGE (FEET)**

Channel XS Station	Existing Conditions	Phase 1		Phase 2		Phase 3	
	Top Width	Top Width	Change	Top Width	Change	Top Width	Change
XS-1	28.04	28.01	-0.03	27.94	-0.10	27.82	-0.22
XS-2	34.11	33.94	-0.17	33.66	-0.45	33.18	-0.93
XS-3	43.01	42.95	-0.06	42.86	-0.15	42.71	-0.30
XS-4	60.79	60.75	-0.04	60.71	-0.08	60.62	-0.17
XS-5	333.21	330.85	-2.36	327.15	-6.06	320.87	-12.34
Average	75.32	74.98	-0.34	74.47	-0.84	71.27	-4.05
Percent Change			-0 %		-1 %		-5 %

Notes: All depths and changes in feet. Channel XS station locations shown on Figure 3.9-2

Source: Appendix HYDRO-1

As shown on Tables 3.9-7 and 3.9-8, reductions in wetted width from locations XS-1 through XS-4 are projected to be generally much less than one foot for all three phases, which would be a negligible change. The reduction in wetted width at location XS-5 is projected to be about 2.36, 6.06, and 12.34 feet for Phases 1, 2, and 3, respectively, using the modeling results based on the Lincoln Street Gauge location, which is closer to location XS-5. This larger wetted width reduction is because the channel for the CVSC widens into a flatter and wider estuary area downstream of the Lincoln Street gauge with a current wetted width of about 333.21 feet. The projected reductions of up to 12.34 feet are out of an existing wetted width of over 320 feet for existing conditions and all three phases. This also means the relatively larger changes to wetted width are limited to the wider estuary area where the flow from the CVSC meanders back and forth, a typical estuary behavior. The analysis described in Appendix HYDRO-1, concludes that even with the reductions in flow depth and reduced wetted width the remaining flow in the channel is sufficient to support the existing riparian and aquatic habitat. This is due to the small volume of flow reduction proportional to the volumes of dry season baseflow in the channel from other sources. With no anticipated reduction in riparian vegetation, the existing vegetation will continue to stabilize banks of the CVSC and prevent erosion. These reductions in average flow depths would not alter the drainage in a manner that would increase erosion, flooding, or conveyance capacity. Impacts would be less than significant.

Pipelines

Construction of pipelines would occur in existing roadways and pipeline alignments; no drainage patterns would be altered. Once constructed, the newly constructed pipelines would be underground with the ground surface restored to existing conditions. Therefore, relative to altering drainage patterns, there would be no impact.

Salton Sea

To assess the proposed project's contribution to the Salton Sea elevation, an analysis was conducted using a model (SSAM) presented in Appendix HYDRO-2. **Table 3.9-10** summarizes results from the SSAM analysis on the Salton Sea elevation changes described in Appendix HYDRO-2. **Figure 3.9-4** provides a

graph of the data. The proposed project with implementation of Phase 3 would reduce flows to the Salton Sea by up to 0.58 percent compared to current flows, which would add to the lowering elevation of the Salton Sea by 0.2 feet by 2045. The SSAM analysis finds no immediate change to Sea elevation following implementation of Phases 1 and 2 compared with the existing inflows from the Salton Sea, as summarized in **Table 3.9-11**. The minor effect to the Sea's elevation by 2045 would not constitute a significant impact of the project, since it reflects a very small portion of the estimated cumulative decline of approximately 10 feet by 2045. The reduction of 0.2 feet in elevation would be manifest evenly around the perimeter of the Sea and would not significantly affect drainage to the Sea that could substantially modify channel morphology, increase flooding, or reduce channel conveyance capacity.

TABLE 3.9-10
COMPARISON OF SSAM RESULTS FOR YEAR 2045 FOR EACH SCENARIO.

Scenario	Inflow (AFY)	Elevation (ft. NAVD88)
Comparison of Coachella Valley Existing Flows with and without WRP 4 Project		
Coachella Valley Existing Inflows	896,438	-249.4
Coachella Valley Existing Inflows with WRP 4 Project	890,053	-249.6
Difference	-6,385	-0.2
Comparison of Existing Coachella Valley Inflows with Long-Range Plan Estimates		
Coachella Valley Existing Inflows with WRP 4 Project	890,053	-249.6
Long-Range Plan Estimates	889,438	-249.6
Difference	+615	0

Source: Appendix HYDRO-2

TABLE 3.9-11
COMPARISON OF COACHELLA VALLEY EXISTING INFLOWS WITH AND WITHOUT WRP 4 PROJECT
AFTER EACH PHASE IMPLEMENTATION DATE

	Inflow (AFY)	Elevation (ft. NAVD88)
Phase 1 (2028)		
Coachella Valley Inflow Existing Condition	1,002,893	-243.2
Coachella Valley Inflow Existing Conditions with WRP 4 Project	1,001,773	-243.2
Difference	-1,120	0
Phase 2 (2031)		
Coachella Valley Inflow Existing Condition	957,270	-244.3
Coachella Valley Inflow Existing Conditions with WRP 4 Project	954,470	-244.3
Difference	-2,800	0
Phase 3 (2036)		
Coachella Valley Inflow Existing Condition	896,438	-246.8
Coachella Valley Inflow Existing Conditions with WRP 4 Project	890,053	-246.9
Difference	-6,385	-0.1

Source: Appendix HYDRO-2

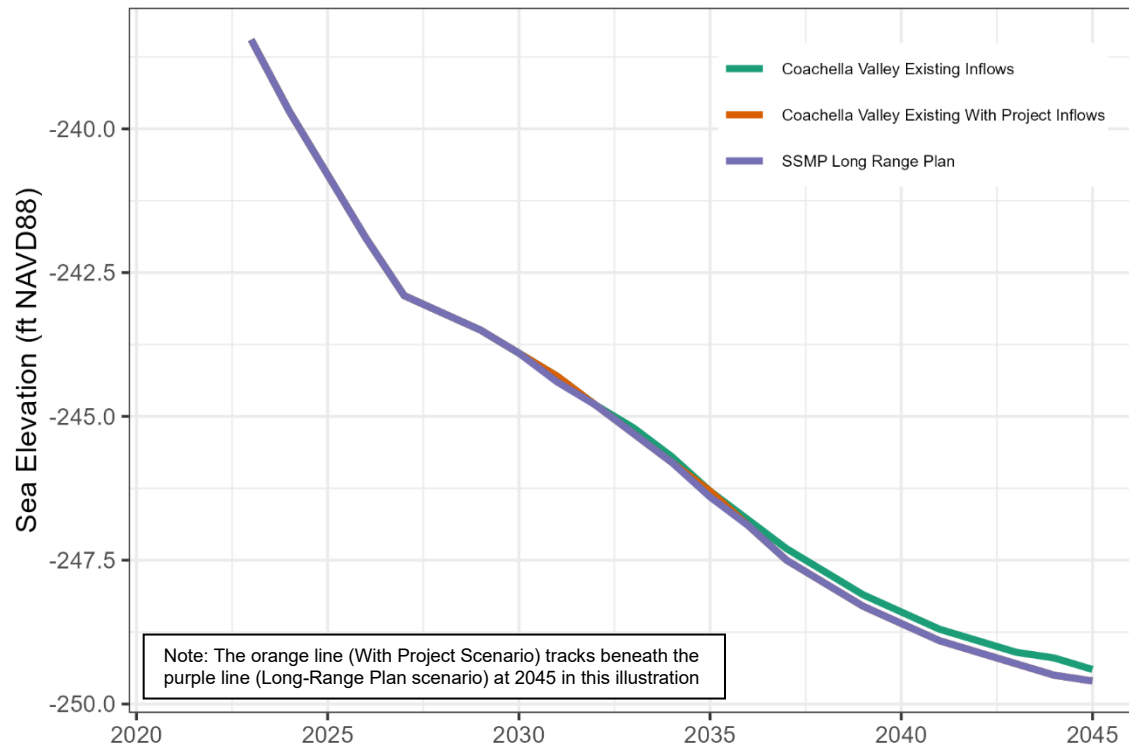


Figure 3.9-4
Modeled Estimates of Salton Sea Elevation (NAVD88 feet)

The lowering of the Salton Sea elevation is not an adverse effect in itself, but does potentially isolate perimeter riparian habitats and expose dry lakebed to wind erosion potential. These two issues are addressed in the Biological Resources and Air Quality Sections of this EIR.

To address these effects from cumulative inflow reductions (which are anticipated from the Imperial Valley primarily), DWR and CDFW have prepared the SSMP and Long-Range Plan which identify specific projects to be developed around the perimeter of the Sea to maintain habitat values and decrease dust emissions caused by wind erosion. The SSMP and Long-Range Plan anticipate inflow reductions from Coachella Valley resulting from recycled water projects including the proposed WRP 4 project. As a result, the proposed project would be consistent with the SSMP and Long-Range Plan's projections of inflows from the Coachella Valley. The projects currently being implemented by DWR and CDFW are designed to accommodate a lower and saltier Salton Sea, anticipating flow reductions caused by the proposed project. As a result, the proposed project would not create additional effects not already anticipated by DWR and CDFW.

Since the proposed project's inflow reductions would not contribute significantly to the decreasing Sea elevation or increase reductions compared with those anticipated by the Long-Range Plan (see Appendix HYDRO-2), it would not result in substantial erosion or siltation on- or offsite; 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. Impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Release of Pollutants in a Flood Hazard Zone

Impact 3.9-4: Would the proposed project be located in flood hazard, tsunami, or seiche zones, and risk release of pollutants due to project inundation?

Phases 1, 2, and 3

The proposed project would not be located in a flood hazard, tsunami, or seiche zone. Therefore, it would not increase risk of releasing pollutants due to inundation. Potential impacts would be less than significant.

Construction

Tertiary Treatment Facilities and Pipelines

Construction of the project would require disturbance of one or more acres of ground and thus would be required to apply for coverage under the Construction General Permit. The construction activities would include the use of fuel and oil for equipment, paints and thinners for structures, and concrete and asphalt for buildings and hardscape, all of which are commonly used in the construction industry. Inappropriate storage of these materials could result in a release of pollutants during floods. As discussed in Section 3.9.1, *Regulatory Framework, State*, the Construction General Permit requires the preparation and implementation of a SWPPP, which would include BMPs for the proper storage and handling of chemicals used during construction. The BMPs would include the proper storage and use of chemicals in accordance with manufacturers' specifications. Refueling and maintenance of equipment, if conducted onsite, would occur in specified areas that are lined and surrounded with secondary containment to control releases in the event of a spill. With compliance with the Construction General Permit, construction impacts relative to the release of pollutants during a flood would be less than significant.

Operation

Tertiary Treatment Facilities

The operation of the upgraded WRP 4 facility would include the use of aluminum sulfate (alum) and sodium hypochlorite. These chemicals would be pollutants if released during a flood. The chemical storage facilities would be on a concrete pad and under a canopy with side panels alongside the necessary feed equipment. A truck unloading station with emergency eyewash facilities and showers would be provided for both systems. Each storage area would include a containment curb and slope to a sump pit to capture and contain chemicals in the event of a spill. The chemicals would be used in accordance with manufacturers' specifications. With proper use and storage of chemicals in tanks with secondary containment, the impact relative to the release of pollutants during a flood would be less than significant.

Pipelines

Once constructed, the pipelines would carry treated water. In the unlikely event of a flood that breaks a pipeline (the pipelines would all be underground, reducing the probability of a break due to flooding), the release would be treated water, which would not be a pollutant. Therefore, relative to the release of pollutants during a flood, there would be no impact.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Water Plans

Impact 3.9-5: Would the proposed project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The proposed project would not conflict with or obstruct implementation of any water quality control plan or groundwater management plan. Potential impacts would be less than significant.

The project site is located within the area under the jurisdiction of the Colorado River RWQCB, which oversees the region's Basin Plan. The Basin Plan establishes standards, objectives, and actions for the water resources within the basin. The project site is located within the Indio Subbasin, which the DWR has designated as a medium-priority groundwater basin, and therefore subject to the requirements of SGMA. The Indio Subbasin GSAs are implementing an approved 2022 WMP, which identifies projects and management actions to sustainably manage groundwater resources within the subbasin. In addition, DWR and CDFW are implementing the SSMP and Long-Range Plan pursuant to WRO 2017-0134. The goal of the Salton Sea Long-Range Plan is to improve air quality, water quality, and wildlife habitat to prevent or reduce health and environmental consequences anticipated from the long-term recession of the Salton Sea.

Phases 1, 2, and 3

The proposed project would not conflict with or obstruct implementation of any water quality control plans or groundwater management plan. Potential impacts would be less than significant.

Construction and Operation

The RWQCB recently renewed the WRP 4 NPDES permit. As a result, the current discharges to the CVSC are consistent with the Basin Plan. The proposed project would be subject to NPDES Water Recycling Requirements and effluent limitations in the existing and future permit updates. Compliance with the NPDES permit would ensure that the proposed project is consistent with the Basin Plan. Furthermore, the elimination of the WRP 4 discharges to the CVSC would improve water quality in the CVSC and the Salton Sea by eliminating a source of nutrients.

The proposed project is identified in the 2022 WMP as a management action. As such, the proposed project is consistent with the 2022 WMP. Furthermore, the SSMP and Long-Range Plan future inflow estimates account for increased development of existing recycled water projects, as well as future recycling projects, including the proposed project (see Appendix HYDRO-2). Therefore, the proposed

project would be consistent with the Basin Plan, SGMA, and the Salton Sea Long-Range Plan. Impact would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.9-6: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to hydrology and water quality?

As noted in Table 3-1 in Section 3.0.2, *Cumulative Impact Methodology*, the cumulative geographic scope for hydrology and water quality includes the WRP 4 site and downstream receiving waters including the CVSC and the Salton Sea. New residential development in the project area is planned for areas east of the Jacqueline Cochran Regional Airport in the community of Thermal, which is north of the proposed project area (County of Riverside 2021). The areas in the immediate vicinity of the proposed project are planned to be maintained as agricultural land. Any projects constructed or operated within the project area over the 20-year implementation timeframe would be required to evaluate impacts to hydrology and water quality. Several planning documents have been developed by regional resource managers to address impacts to water resources in the region caused by cumulative development projects. These plans include the Basin Plan, 2022 WMP, and SSMP and Long-Range Plan. Further, each proposed development project would be subject to applicable federal, state, and local regulations and engineering standards discussed in Section 3.9.1, *Regulatory Framework*.

Construction of the proposed project would contribute to cumulative impacts to drainages and water quality. However, the amount of construction required by the proposed project would be limited to the WRP 4 site and pipeline corridors and would not contribute substantially to impacts to water quality or local drainages. The proposed project's contribution to cumulative impacts would be less than significant.

Cessation of discharges to the CVSC from WRP 4 will reduce flow in the CVSC. However, as assessed in Appendix HYDRO-1, the cumulative surface water flows into the CVSC from upstream and downstream will minimize effects of flow reductions, resulting in a less than significant cumulative impact to the CVSC.

Cumulative water inflows to the Salton Sea are projected to decrease in the future as a result of Colorado River water conservation efforts, changes in river flows from Mexico, thermal power and lithium water demands, climate change, and water recycling projects. Recognizing the anticipated impacts to the Salton Sea elevation and salinity caused by the cumulative inflow reductions, the State of California passed the Salton Sea Restoration Act (California Fish & Game Code section 2942), which requires the Secretary of CNRA to lead the state's efforts to restore the Salton Sea. The SSMP and Long-Range Plan prepared to comply with the Act and subsequent Water Rights Order WRO 2017-134 were developed to respond to the foreseeable cumulative condition of a smaller Salton Sea including anticipated cumulative inflow reductions associated with all sources, including the proposed project. DWR and CDFW are implementing habitat restoration and dust suppression projects through the SSMP and Long-Range Plan

in anticipation of future cumulative flow reductions, consistent with direction from WRO 2017-134. The projects are designed to reduce cumulative impacts anticipated from a smaller Sea that will be saltier and with a lower elevation. The proposed project's contribution to the cumulative decline in elevation and increased salinity is consistent with future estimates in the SSMP being addressed through implementation of the proposed habitat restoration and dust suppression projects.

Furthermore, the proposed project is an integral component of the 2022 WMP, which will implement several projects that together are expected to increase inflows to the Salton Sea from the Coachella Valley. The 2022 WMP identified water management actions to increase groundwater recharge and reduce groundwater extractions that are required to be implemented to achieve compliance with SGMA. As demonstrated in Appendix HYDRO-2, implementation of the 2022 WMP water management actions, which include the proposed project, are expected to increase inflows to the Salton Sea from the Coachella Valley compared with existing conditions. Since these water management actions are currently being implemented by the GSAs to comply with SGMA, increased flows to the Salton Sea from the Coachella Valley represent a reasonably foreseeable future condition. As a result, the proposed project's contribution to cumulative impacts would not be considerable.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.9.4 References

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Regional Water Quality Control Board (RWQCB), 2023. *Order R7-2023-0013, NPDES No. CA0104973, Waste Discharge Requirements for Coachella Valley Water District, Mid-Valley Water Reclamation Plant No. 4*. Adopted April 11.

San Diego County Water Authority, 2020. *Quantification Settlement Agreement for the Colorado River*. February.

State Water Resources Control Board (SWRCB), 2002. Excerpt from *Revised Order WRO 2002-0013, Revised in Accordance with Order 2002-0016. In the Matter of Imperial Irrigation District's and San Diego County Water Authority's Amended Joint Petition of Approval of a Long-term Transfer of Conserved Water from IID to SDCWA and to Change the Pointy of Diversion, Place of Use, and Purpose of Use Under Permit 7643 Issued on Application 7482 of Imperial Irrigation District. Source: Colorado River, County Imperial*.

State Water Resources Control Board (SWRCB), 2022. *California 2020-2022 Integrated Report (303(d) List/305(b) Report), Appendix A* [excerpts for Coachella Valley Stormwater Channel and Salton Sea]. February 16.

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Water Education Foundation (WEF), 2023. *Quantification Settlement Agreement*.

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3.10 Land Use

This section addresses the potential impacts related to land use and planning associated with implementation of the proposed project. This section includes: a description of existing land uses on the proposed project site and in the surrounding area; a summary of applicable regulations related to land use and planning; and an evaluation of the potential for the proposed project to result in environmental impacts related to land use and planning. In addition, an evaluation of the potential cumulative impacts is included.

3.10.1 Regulatory Framework

State

California Government Code Section 53091

California Government Code Section 53091 specifies that water supply facilities, such as those associated with the proposed project, are exempt from zoning restrictions. Specifically, Section 53091 states (CA Govt Code § 53091):

- (d) Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency.*
- (e) Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water.*

Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the federally mandated Metropolitan Planning Organization representing six counties: Los Angeles, Imperial, Orange, Riverside, San Bernardino, and Ventura. The SCAG Regional Comprehensive Plan addresses important regional issues such as housing, traffic/transportation, water, and air quality and serves as an advisory planning document to support and encourage local agencies in their planning efforts.

Local

County of Riverside General Plan

The General Plan “sets the direction for the County’s land use and development in strategic locations, as well as the development of its economic base, the framework of its transportation system, and the preservation of the extremely valuable natural and cultural resources it contains” (County of Riverside 2015). The General Plan is augmented by 19 more detailed Area Plans that provide a focused plan for development at the community level. Development within the proposed project area is guided by the Eastern Coachella Valley Area Plan (ECVAP).

The ECVAP includes four policy areas that contains special or unique characteristics that merit detailed attention and focused policies (County of Riverside 2021). The ECVAP encompasses nearly 670 square miles within the southeast portion of the Coachella Valley, south and east of the City of Indio, and east of the City of La Quinta and the Santa Rosa Mountains, stretching to the Imperial County line on the south.

3.10.2 Environmental Setting

Existing Zoning

The proposed project facilities would be located within land predominantly zoned for agricultural use within unincorporated portions of Riverside County. The existing WRP 4 property where the tertiary treatment system would be installed is zoned for light agriculture (A-1). The Phase 1 pipelines would be located on and adjacent to land zoned for light agriculture (A-1). The Phase 2 pipelines would be located on and adjacent to land zoned for light agriculture (A-1) and heavy agriculture (A-2), as well as areas zoned for specific plan (SP) uses. Phase 3 pipelines and the Phase 3 blended water reservoir would be located on and adjacent to lands zoned for light agriculture (A-1) and heavy agriculture (A-2). In addition, a portion of the Phase 3 pipelines would run parallel to a small portion of land zoned for general commercial uses (C-1 & C-P) (County of Riverside 2023).

Existing Land Use Designations

The proposed project is located within the ECVAP. The land use plan for the Eastern Coachella Valley is designed to maintain the predominantly rural, agricultural, and open space character of the area and to focus growth adjacent to where it currently exists. According to the ECVAP, “considerable acreage in the Thermal area has been designated as Light Industrial and Heavy Industrial” (County of Riverside 2021). The ECVAP designates the area around the proposed project site as mixed use, light industrial, high density residential, medium-high density residential, medium density residential, and open space recreation (County of Riverside 2021).

3.10.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to land use and planning. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- Physically divide an established community.
- 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.
- Result in cumulatively considerable impacts to land use and planning.

Impact Analysis

Conflict with Land Use Plan, Policy or Regulation

Impact 3.10-1: Would the proposed project physically divide an established community?

Phase 1, 2, and 3

The physical division of an established community generally refers to the construction of features that would impact mobility within an existing community or between a community and outlying area, such as an interstate highway, railroad tracks, or permanent removal of a means of access, such as a local road or bridge. The proposed project would not physically divide an established community. No impact would occur.

Construction and Operation

Tertiary Treatment Facilities

The Phase 1 tertiary treatment facilities, along with the upgrades to the tertiary treatment system that would occur within Phases 2 and 3 would be implemented on the WRP 4 property, just north of the existing secondary treatment facilities. The activities would be entirely contained within the WRP 4 property. Therefore, construction and operation of tertiary treatment facilities would not divide an established community. No impact would occur.

Pipelines

Phases 1, 2, and 3 of the proposed project would include installation of pipelines that would primarily be installed within public rights-of-way. Although the proposed pipelines are linear features, they would be located underground and would not permanently divide an established community. In addition, Phase 3 of the proposed project would include construction of a steel 107,000-gallon offsite blended water reservoir to provide constant system pressure. The tank would be 35-feet in diameter and 15-feet tall and would not create a barrier within public roadways or physically divide an established community. Therefore, no impact would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Impact 3.10-2: Would the proposed project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Phase 1, 2, and 3

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. Potential impacts would be less than significant.

As discussed above, lands surrounding and encompassing the proposed project have been zoned as light agriculture (A-1), heavy agriculture (A-2), specific plan (SP), and general commercial (C-1 & C-P). In addition, the General Plan has designated lands surrounding and encompassing the proposed project site as mixed use, light industrial, high density residential, medium-high density residential, medium density residential, and open space recreation.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

The proposed project would include construction and operation of a filtration system and treatment plant at the existing WRP 4 property, offsite pipelines, and an offsite blended water reservoir. The proposed Phase 1 tertiary treatment facilities, along with the upgrades to the tertiary treatment system that would occur within Phases 2 and 3 would be implemented on the WRP 4 property and would not alter the current use of the facility; therefore, these improvements would be compatible and would not conflict with land use plans, policies, or regulations. Proposed new and repurposed pipelines would be installed underground and

would be located within or adjacent to public rights-of-way, and would not conflict with land use designations or be incompatible with neighboring land uses. The offsite blended water reservoir that would be constructed under Phase 3 of the proposed project is located within an area zoned for light and heavy agriculture; however, per Government Code Section 53091, building ordinances of local cities or counties do not apply to the location or construction of facilities for the projection, generation, storage, treatment, or transmission of water or wastewater. Therefore, the proposed offsite pipelines and blended water storage tank would not be subject to a conditional use permit or general plan amendment. Furthermore, the construction and improvement of water utilities fundamentally support agricultural uses. Therefore, the proposed project would not conflict with the County zoning code or the land use designations for the proposed project site as specified in the General Plan and the impact would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.10-3: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to land use and planning?

Phase 1, 2, and 3

Existing planning documentation outlined in Section 3.0.2, *Cumulative Impacts Methodology*, and in this section identifies local and regional plans that describe or evaluate regional or area wide conditions contributing to cumulative impacts. Planned residential development in the proposed project area is slated for areas east of the Jacqueline Cochran Regional Airport in the community of Thermal, which is north of the proposed project area (County of Riverside 2021). The areas in the immediate vicinity of the proposed project are planned to be maintained as agricultural land. Future development in the vicinity of the proposed project could result in the conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. However, because the potential land use impacts associated with the implementation of the proposed project would be less than significant, the proposed project's contribution to cumulative land use impacts would be less than cumulatively considerable. Further, the proposed project is consistent with all applicable land use planning documents. Therefore, a less than significant cumulative land use impact would occur.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.10.4 References

- County of Riverside, 2015. *County of Riverside General Plan - Introduction*. December 8, 2015. Available at <https://planning.rctlma.org/sites/g/files/aldnop416/files/migrated/Portals-14-genplan-general-Plan-2017-elements-OCT17-Ch01-Intro-120815.pdf>. Accessed December 14, 2023.
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3.11 Noise

This section addresses the potential impacts related to noise and vibration associated with implementation of the proposed project. This section includes: a description of existing noise conditions at the project site and surrounding area; a summary of applicable regulations related to noise and vibration; and an evaluation of the potential for the proposed project to result in environmental impacts related to noise and vibration at the proposed project site and in the surrounding area. In addition, an evaluation of the potential cumulative impacts is provided.

3.11.1 Regulatory Framework

Federal

U.S. Environmental Protection Agency

Under the authority of the Noise Control Act of 1972, the United States Environmental Protection Agency (USEPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, USEPA issued guidance levels for the protection of public health and welfare in residential land use areas (USEPA 1974). The guidance levels specified an outdoor L_{dn} of 55 dBA and an indoor L_{dn} of 45 dBA. These guidance levels are not considered as standards or regulations and were developed without consideration of technical or economic feasibility. There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the proposed project.

National Institute for Occupational Safety and Health

NIOSH establishes Recommended Exposure Limits (REL) for noise based on the best available science and practice. The NIOSH REL for noise is 85 decibels, using the A-weighted frequency response (dBA) over an 8-hour average, usually referred to as Time-Weighted Average (TWA). Exposures at or above this level are considered hazardous.

Federal Transit Authority Vibration Standards

The Federal Transit Administration (FTA) has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by FTA are shown in **Table 3.11-1**.

**TABLE 3.11-1
CONSTRUCTION VIBRATION DAMAGE CRITERIA**

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12
SOURCE: FTA 2018.	

In addition, FTA has also adopted standards associated with human annoyance for groundborne vibration impacts for the following three land-use categories: Vibration Category 1 – High Sensitivity, Vibration Category 2 – Residential, and Vibration Category 3 – Institutional. FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference. The vibration thresholds associated with human annoyance for these three land-use categories are shown in **Table 3.11-2**. No thresholds have been adopted or recommended for commercial and office uses.

TABLE 3.11-2
GROUNDBORNE VIBRATION IMPACT CRITERIA FOR GENERAL ASSESSMENT

Land Use Category	Frequent Events ^a	Occasional Events ^b	Infrequent Events ^c
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB ^d	65 VdB ^d	65 VdB ^d
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

a. "Frequent Events" is defined as more than 70 vibration events of the same source per day.
b. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.
c. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day.
d. This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.
Source: FTA 2018.

State

Noise

The State of California does not have statewide standards for environmental noise, but the California Department of Public Health (DPH) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure (**Table 3.11-3**).

**TABLE 3.11-3
COMMUNITY NOISE EXPOSURE – LDN OR CNEL (dBA)**

Land Use Category	50	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Home							
Residential – Multi-Family							
Transient Lodging – Motel/Hotel							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditorium, Concert Hall, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, 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 are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	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 generally should not be undertaken.

Source: State of California, Governor's Office of Planning and Research, 2003.

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 Community Noise Equivalent Level (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, Per State of California Government Code Section 53091, building ordinances of local cities or counties do not apply to the location or construction of facilities for the projection, generation, storage, treatment, or transmission of water or wastewater. Specifically, Section 53091 states (State of California Legislative Council 2003):

- (d) *Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency.*
- (e) *Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water.*

Vibration

There are no state vibration standards. Moreover, according to the California Department of Transportation’s (Caltrans) *Transportation and Construction Vibration Guidance Manual*, there are no official Caltrans standards for vibration. 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 annoyance. 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. The vibration criteria established by Caltrans for assessing structural damage and human annoyance are shown in **Table 3.11-4** and **Table 3.11-5**, respectively.

TABLE 3.11-4
CALTRANS VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA

Structure and Condition	Maximum PPV (in/sec)	
	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
Note: 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 2020.		

**TABLE 3.11-5
CALTRANS VIBRATION ANNOYANCE POTENTIAL CRITERIA**

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Note: 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 2020.

Local

Local noise regulation involves implementation of the noise goals and policies of the applicable municipal general plan noise element and the noise standards of the applicable municipal code noise ordinance. The proposed project site is located in the community of Thermal within the unincorporated areas of the County of Riverside. The community of Thermal does not have its own general plan policies nor noise ordinance; therefore, the County General Plan Noise Elements and Municipal Code Noise Ordinances are applicable to the proposed project.

County of Riverside

County of Riverside Noise Element of the General Plan

The California Government Code Section 65302(g) requires that a noise element be included in the General Plan of each county and city in the State. The Noise Element of the County of Riverside General Plan is intended to provide a systematic approach to identifying and appraising noise problems in the community; quantifying existing and projected noise levels; addressing excessive noise exposure; and community planning for the regulation of noise.

The County's primary goal regarding community noise is to ensure that noise-producing land uses would be compatible with adjacent land uses. To this end, the Noise Element establishes noise/land use compatibility guidelines based on cumulative noise criteria for outdoor noise. These guidelines are based, in part, on the community noise compatibility guidelines established by the County's Department of Health Services (DHS) for use in assessing the compatibility of various land use types with a range of noise levels. The County's noise/land use compatibility guidelines are shown in **Table 3.11-6**.

TABLE 3.11-6
COUNTY OF RIVERSIDE LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE LEVEL (CNEL)

Land Use	Normally Acceptable ^a	Conditionally Acceptable ^b	Normally Unacceptable ^c	Clearly Unacceptable ^d
Single-Family, Duplex, Mobile Homes	50–60	55–70	70–75	above 75
Multifamily Homes	50–65	60–70	70–75	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	above 80
Transient Lodging – Motels, Hotels	50–65	60–70	70–80	above 80
Auditoriums, Concert Halls, Amphitheaters	—	50–70	above 65	—
Sports Arena, Outdoor Spectator Sports	—	50–75	above 70	—
Playgrounds, Neighborhood Parks	50–70	—	68–75	above 74
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–75	—	70–80	above 80
Office Buildings, Business, Commercial, and Professional	50–70	68–77	—	above 75
Industrial, Manufacturing, Utilities, Agriculture	50–75	70–80	—	above 75

Notes:

All CNEL (or L_{dn}) measurements are expressed in dBA.

- 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. Outdoor environment will seem noisy.
- 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. Outdoor areas must be shielded.
- d. **Clearly Unacceptable:** New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

Source: County of Riverside 2013.

The County of Riverside General Plan Noise Element contains various policies to address countywide noise issues. The following are relevant to the proposed project:

Policy N 1.1. Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas. If the noise-producing land use cannot be relocated, then noise buffers such as setbacks, landscaping, or blockwalls shall be used.

Policy N 1.5. Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.

Policy N 13.1. Minimize the impacts of construction noise on adjacent uses within acceptable practices.

Policy N 13.2. Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.

Policy N 13.4. Require that all construction equipment utilizes noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

The County's Noise Element in its Appendix I: Noise Element Data, Determining and Mitigating Traffic Noise Impacts to Residential Structures Memo, states that the interior noise level in residential dwellings shall not exceed 45 dBA $L_{dn}/CNEL$. The exterior noise level shall not exceed 65 dBA $L_{dn}/CNEL$ in outdoor active use areas.

Riverside County Code

With respect to residential and recreational open space uses, County of Riverside Ordinance 847.1, Section 4 (County of Riverside 2007) identifies the following general sound level standards as shown in **Table 3.11-7**. These sound level standards apply to operational sound emanating from all noise sources.

**TABLE 3.11-7
COUNTY OF RIVERSIDE SOUND LEVEL STANDARDS**

Land Use	Maximum Decibel Level (dB L_{max})
Community Development Residential	
10 p.m. to 7 a.m.	45
7 a.m. to 10 p.m.	55
Open Space Recreation	
10 p.m. to 7 a.m.	45
7 a.m. to 10 p.m.	45
Source: County of Riverside Ordinance 847.1 Section 4, 2007	

Section 9.52.020 of the County Code lists several sources that are exempt from the noise provisions of Chapter 9.52, Regulation, which include the following construction activities:

- I. Private construction projects located within one-quarter of a mile from an inhabited dwelling, provided that:*
 - 1. Construction does not occur between the hours of six p.m. and six a.m. during the months of June through September, and*
 - 2. Construction does not occur between the hours of six p.m. and seven a.m. during the months of October through May;*

In addition, the County of Riverside considers the NIOSH REL of 85 decibels, using the A-weighted frequency response (dBA) over an 8-hour average (usually referred to as Time-Weighted Average), as an upper threshold to assess construction noise impacts. Exposures at or above this level are considered hazardous.

Ordinance No. 847 – Regulating Noise

The intent of Ordinance No. 847 is intended to establish county-wide noise standards for regulating noise for different General Plan land use designations. The ordinance also exempts certain agencies and/or uses from the general established noise standards including facilities owned or operated by or for a government agency. CVWD owns and will operate the facilities proposed as parts of the project and is therefore exempt from the County's noise level limits (85 dBA L_{eq} TWA over an 8-hour period) for construction.

For planning purposes, the 24-hour average sound levels (CNEL) are roughly equivalent to L_{eq} measurements plus 5 dBA when traffic is the dominant noise source (Office of Noise Control, 1976:21).

3.11.2 Environmental Setting

Noise Principals and Descriptors

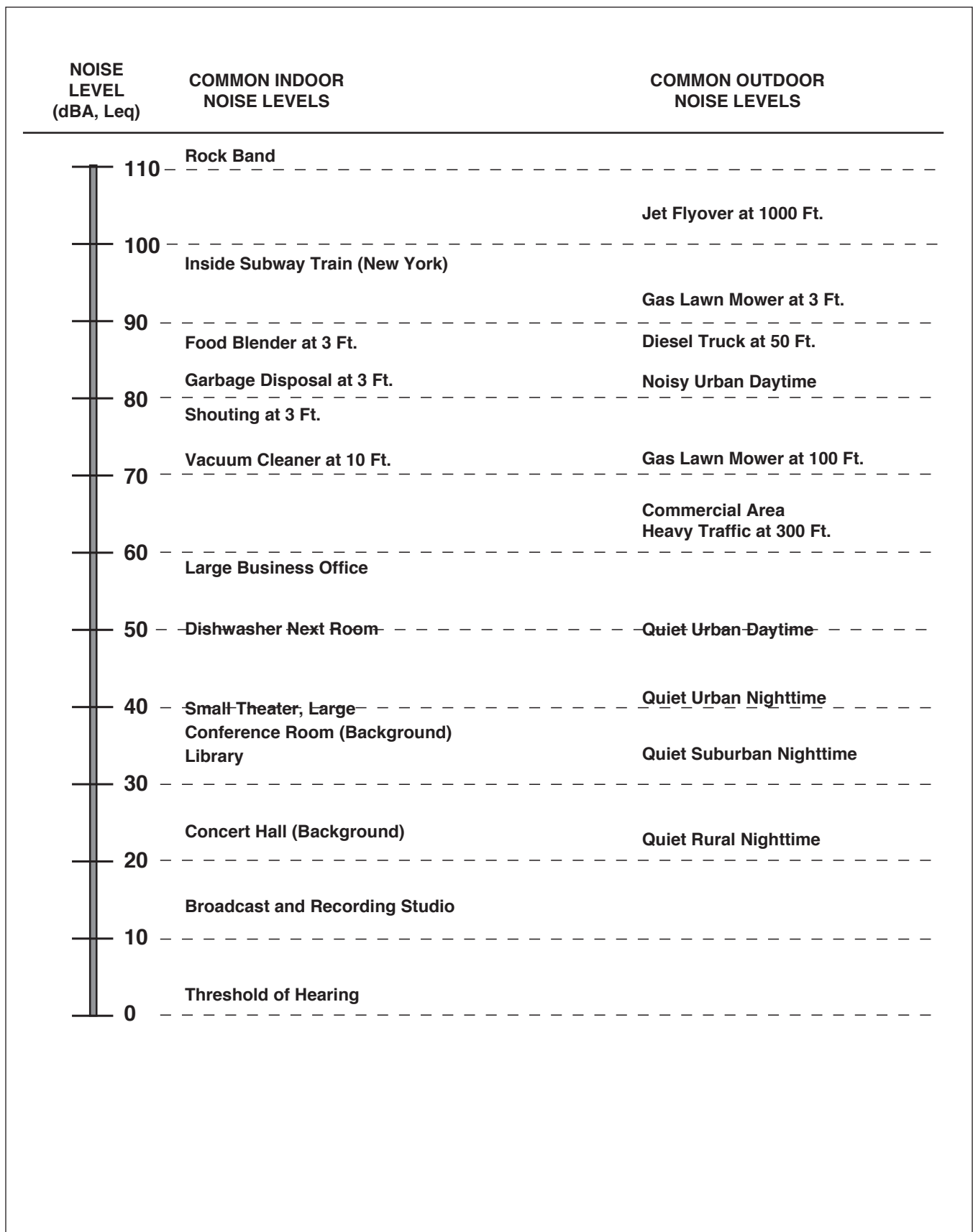
Noise is generally defined as unwanted sound, traveling in the form of waves from a source and exerting a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes 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.

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. When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. 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 extremely low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of dBA. A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown in **Figure 3.11-1**.

Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given instant in time. The noise levels presented in Figure 3.11-1 are representative of measured noise at a given instant in time; however, they rarely persist consistently over a long period of time. Rather, community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with 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 traffic. What makes community noise constantly 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.



SOURCE: State of California, Department of Transportation (Caltrans),
Technical Noise Supplement (TeNS). October 1998

WRP 4 Project

Figure 3.11-1
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, thus requiring that noise exposure be measured over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

L_{eq}: The L_{eq}, or equivalent sound level, is used to describe noise over a specified period of time in terms of a single numerical value; the L_{eq} of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. The L_{eq} may also be referred to as the average sound level.

L_{max}: The maximum, instantaneous noise level experienced during a given period of time.

L_{min}: The minimum, instantaneous noise level experienced during a given period of time.

L₅₀: The noise level that is equaled or exceeded 50 percent of the specified time period. The L₅₀ represents the median sound level.

L₉₀: The noise level that is equaled or exceeded 90 percent of the specified time period. The L₉₀ is generally considered to be representing the background or ambient level of a noise environment.

L_{dn}: Also termed the day-night average noise level (DNL), the L_{dn} is the average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dBA to measured noise levels between the hours of 10:00 P.M. and 7:00 A.M. to account nighttime noise sensitivity.

CNEL: CNEL, or Community Noise Equivalent Level, is the average A-weighted noise level during a 24-hour day that is obtained after an addition of 5 dBA to measured noise levels between the hours of 7:00 P.M. and 10:00 P.M. and after an addition of 10 dBA to noise levels between the hours of 10:00 P.M. and 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)
- 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 of environmental noise refer to those effects that 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. With regard to the subjective effects, the responses of individuals to similar noise events are diverse and are 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:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3 dBA change in noise levels is considered to be a barely perceivable difference.
- A change in noise levels of 5 dBA is considered to be a readily perceivable difference.
- A change in 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 system. The human ear perceives sound in a nonlinear fashion; hence, the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate between 6 dBA for hard sites and 7.5 dBA for soft sites for each doubling of distance from the reference measurement (typically, 50 feet). 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 change 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. In addition to geometric spreading, an excess ground attenuation value of 1.5 dBA (per doubling distance) is normally assumed for soft sites. Line sources (i.e., vehicle traffic noise on roadways) 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 1998).

Fundamentals of Vibration

As described in the Federal Transit Administration's (FTA's) *Transit Noise and Vibration Impact Assessment* (FTA 2018), 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. In contrast to airborne noise, groundborne vibration is not a common environmental problem. 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, buses on rough roads, and construction activities such as blasting, pile-driving, and operation of heavy earthmoving equipment.

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. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. 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). The decibel notation 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.

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. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. 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. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 in/sec PPV (FTA 2018).

In residential areas, the background vibration velocity level is typically approximately 50 VdB (approximately 0.0013 in/sec PPV). This level is well below the vibration velocity level threshold of perception for humans, which is approximately 65 VdB. A vibration velocity level of 75 VdB is considered to be the approximate dividing line between barely perceptible and distinctly perceptible levels for healthy human hearing (FTA 2018).

Existing Conditions

Some land uses are considered more sensitive to noise than others due to the amount of noise exposure and the types of activities typically conducted at the receptor location. The County of Riverside Noise Control ordinance defines noise-sensitive zones as those having residential or semi-residential/commercial land uses, as well as zones designated by the Director of the County’s DHS, provided that conspicuous signs are displayed near the institution or facility. Existing noise sensitive uses in the vicinity of the proposed project site include the following:

Residential Uses: The closest residential land uses are located north of the WRP 4 site, along 62nd Avenue, approximately 260 feet north of the proposed project site and 25 feet from the proposed pipeline installation. Other sensitive residential land uses are located 25 feet from the Phase 2 and 3 pipeline route.

Ambient Noise Levels

The predominant existing noise source surrounding the WRP 4 site is roadway noise from 62nd Avenue and roadways noise surrounding the proposed pipelines. Surrounding land uses also play a major role in the ambient noise levels at the proposed project site. For example, the Jaqueline Cochran Regional Airport is located 2.4 miles to the northwest of the proposed project site and according to the Riverside County Airport Land Use Compatibility Plan (ALUCP); the site is located just outside of the 55 dBA CNEL contour from flight operations. Additionally, the Thermal Club motorsport track is located approximately 1 mile to the west of the proposed project site. Track events would result in a temporary noise increase in the surrounding environment from the increased vehicle trips within the vicinity. Overall, it is anticipated that noise levels at the proposed project site would be similar to other rural land uses and have a noise level from anywhere from 45 to 55 dBA CNEL.

Existing Groundborne Vibration Levels

Aside from periodic construction work that may occur throughout the vicinity of the proposed project site, other sources of groundborne vibration include heavy-duty vehicular travel (e.g., refuse trucks, delivery trucks, etc.) on local roadways. Truck traffic at a distance of 50 feet typically generates groundborne vibration velocity levels of approximately 0.006 in/sec PPV¹, which would be below the barely perceptible level of 0.01 in/sec PPV.²

3.11.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to noise and vibration. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- 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.
- Generate excessive groundborne vibration or groundborne noise levels.
- 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, the project would expose people residing or working in the project area to excessive noise levels.
- Result in cumulatively considerable impacts to noise and vibration.

Methodology

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

¹ FTA, *Transit Noise and Vibration Impact Assessment*. May 2006.

² Caltrans, *Transportation and Construction Vibration Guidance Manual*, September, 2013.

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.

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 January 2006). NIOSH establishes a REL of 85 dBA over an 8-hour average. Exposures at or above this level are considered hazardous. County of Riverside has adopted the NIOSH 85 dBA REL over 8 hours as its threshold for construction noise, and construction can occur anytime during the following permitted hours within unincorporated areas because CVWD owns and will operate the facilities proposed as parts of the project, and is therefore exempt from the County's noise level limits (85 dBA Leq TWA over an 8-hour period) for construction:

- Construction does not occur between the hours of six p.m. and six a.m. during the months of June through September, and
- Construction does not occur between the hours of six p.m. and seven a.m. during the months of October through May.

In addition, the FTA has set a construction noise criteria at the property line for residential receptors of 80 dBA L_{eq} . Therefore, construction noise shall also be analyzed against this criteria to provide an environmentally protective analysis.

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 Tables 3.11-7 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.

Impact Analysis

Ambient Noise Levels

Impact 3.11-1: Would the proposed project 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?

Phase 1, 2, 3

The proposed project would potentially 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. Mitigation Measure NOISE-1 would be implemented to reduce potential construction-related noise impacts adjacent to sensitive receptors. Potential impacts would be less than significant with mitigation.

Construction

Tertiary Treatment Facilities and Pipelines

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 pipelines) would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. **Table 3.11-8** shows the typical maximum and average noise levels produced by various types of construction equipment.

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 proposed 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. Phase 1 and 2 are modeled under the CalEEMod assumptions; it can be assumed that Phase 3 would have similar impacts as the previous phases. Impacts under Phase 3 would primarily be a result of pipeline installation as there are very minor tertiary facility upgrades compared to the previous phases. Phase 3 is also expected to occur in

2045; therefore, noise could potentially be reduced relative to previous phases as better engines/mufflers would be used in heavy equipment. For all phases, a worst-case scenario was assumed based on the known pipeline alignments. Construction of the pipelines would occur as close as 25 feet from the property line of sensitive receivers along the pipeline routes. For other on-site project components, such as storage reservoir tanks and tertiary treatment upgrades, the nearest distance to any sensitive receptor property lines based on known locations is estimated to be at least 260 feet.

**TABLE 3.11-8
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 2018.		

The noise levels shown below in **Table 3.11-9** represent composite noise levels associated with typical construction activities, which take into account both the number and spacing of heavy construction equipment that are typically used during each phase of construction. These noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 84 dBA L_{eq} measured at 50 feet from the noise source to the receptor would reduce to 78 dBA L_{eq} at 100 feet from the source to the receptor and reduce by another 6 dBA L_{eq} to 72 dBA L_{eq} at 200 feet from the source to the receptor. As shown in Table 3.11-9, construction of the pipelines would result in noise levels of approximately 89.0 dBA L_{eq} at 25 feet, from where the nearest sensitive receptor property lines would be located before mitigation.

TABLE 3.11-9
ESTIMATED CONSTRUCTION NOISE LEVELS AT NEAREST EXISTING OFF-SITE SENSITIVE RECEPTORS

Project Component	Construction Phases	Distance between Nearest Receptor and Construction Site, feet	Estimated Unmitigated Construction Noise Levels at Noise Sensitive Receptor by Construction Phase, ^{a,b} Hourly L_{eq} (dBA)	Estimated Mitigated Construction Noise Levels at Noise Sensitive Receptor by Construction Phase, ^{a,b} Hourly L_{eq} (dBA)
Phase 1 (Tertiary Treatment facility Upgrades)	Site Preparation	260 to 1000 feet	68	62
	Grading		72	66
	Building Construction		69	63
	Paving		71	65
	Architectural Coating		62	56
	Maximum Combined Noise Levels		72	66
Pipeline Installation	Site Preparation	25 to 100 feet	89	78
	Grading		87	76
	Paving		83	72
	Maximum Combined Noise Levels		89	78
Phase 2 (Tertiary Treatment facility Upgrades)	Site Preparation	260 to 1000 feet	68	62
	Grading		72	66
	Building Construction		69	63
	Paving		71	65
	Architectural Coating		72	56
	Maximum Combined Noise Levels		72	66
Pipeline Installation	Site Preparation	25 to 100 feet	89	78
	Grading		87	76
	Paving		83	72
	Maximum Combined Noise Levels		89	78

a. Estimated construction noise levels represent the worst-case condition when noise generators are located closest to the receptors and are expected to last the entire duration of each construction phase. Construction noise level estimated at each receptor analyzed is a result of several pieces of construction equipment operating at as close as 30 feet and as far as 100 feet from the same receiver at the same time.

b. Noise levels include a 6 dBA reduction from the usage of enhanced mufflers and an additional 5 dBA reduction is applied to pipeline installation for both phases from acoustic shielding implemented in the mitigated scenario.

Source: ESA 2024.

For the proposed project, construction of the pipelines that would be located in unincorporated areas of Riverside County, exposure of sensitive receptors would potentially exceed the 85 dBA REL and 80 dBA L_{eq} over an 8-hour period when located at least 25 feet of an active construction area depending on the equipment needed without any mitigation. Exposures at or above this level result in a potentially

significant impact. It should be noted that pipeline construction would be short-term in duration and would expose sensitive receptors to temporary increases in noise levels because the construction activities would move along the pipeline route (i.e., roadways) as the pipeline is installed. It is anticipated that pipeline installation would be installed in 100 feet increments each day. Riverside County Ordinance No. 847 exempts certain agencies and/or uses from the general established noise standards including facilities owned or operated by or by a government agency. CVWD owns and will operate the facilities being proposed as part of the project and is therefore exempt from the County's noise regulations for construction. Therefore, construction of the proposed project within the unincorporated County area would not violate local noise regulations as long as they occur within the County's allowable construction hours (6:00 a.m. to 6:00 p.m. June through September; 7:00 a.m. and 6:00 p.m. October through May). Nonetheless, while construction occurring within the above time frames would comply with the County's noise regulations, temporary construction noise impacts have nonetheless been analyzed and mitigation measures proposed to reduce construction noise impacts to a level of below 80 dBA.

Mitigation Measure NOISE-1 would be required to provide provisions in case construction occurs outside of allowable hours and to reduce construction noise activities adjacent to sensitive receptors to the extent feasible. Such measures to reduce noise include installing enhanced mufflers on applicable equipment for both facility upgrades and pipeline installation and including a mobile noise barrier during the pipeline installation phase. A study prepared for the U.S. Department of Transportation found that in cases where a particular piece of equipment either does not have or has a very poor muffler, the application of a good muffler will reduce the overall noise by 6 to 12 dBA.³ Therefore, as a conservative analysis, reduction from the mufflers would result in 6 dBA attenuation.

With respect to a sound barrier, according to a study prepared by the Washington State Department of Transportation, a barrier constructed that blocks the line of sight from the source of the noise to the receptor and is constructed where the material used would result in a weight of 4 pounds per square foot, can result in a 5 dBA attenuation in noise. Therefore, the usage of the mobile noise barrier for the pipeline installation would provide an additional 5 dBA attenuation on top of the 6 dBA attenuation from enhanced mufflers/silencers. It is anticipated that any work outside of the County ordinance allowable hours would be brief to accommodate a temporary construction activity. With the implementation of the mitigation measure, impacts would be reduced to a less than significant level for both the County's 85 dBA REL sound level and the FTA 80 dBA L_{eq} sound level for construction noise at a residential receptor. It is noted that sound barriers would only be required during pipeline installation construction activities and would not be required for construction activities related to the Tertiary Treatment Facility Upgrades. Furthermore, sound barriers would only be required when pipeline installation construction activities would be located less than 50 feet from noise-sensitive land uses. Pipeline installation construction activities occurring 50 feet or more from noise-sensitive land uses would not exceed the County's 85 dBA REL sound level or the FTA 80 dBA L_{eq} sound level due to noise attenuation through distance (with implementation of muffling and shielding of intakes and exhaust on construction equipment). Implementation of **Mitigation Measure NOISE-1** would reduce construction noise impacts from on-site equipment to less than significant.

³ Toth, William J. 1979, August. "Noise Abatement Techniques for Construction Equipment." Prepared for the National Highway Traffic Safety Administration. US Department of Transportation.

On a maximum day, project construction would result in 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 8 haul truck trips per day would not double traffic volumes in the proposed project vicinity. Therefore, project construction-related traffic would not increase ambient noise levels by greater than 3 dBA and impacts would be less than significant.

Operation

Tertiary Treatment Facilities and Pipelines

Project operations that would generate noise include maintenance vehicle trips and the operation of certain mechanical equipment such as stationary pumps. Implementation of the proposed facilities would not result in large numbers of new employees because the facilities are highly automated. Maintenance inspection of reservoir tanks, on-site facilities, and pipelines would occur periodically in line with existing maintenance trips. The pipeline alignments would be largely underground and serviced on an as-needed basis as well. 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. Reservoir tanks would involve passive conveyance and storage of water and would produce minimal operational noise. Pump stations would include hydraulic pumps that would have the potential to produce increased ambient noise levels in the vicinity of sensitive receptors; however, they would be located at a distance where noise from pumps would be negligible to the nearby residence. Once constructed, the treatment plant expansion would produce minimal noise associated with normal operation of a business and would be in line with the existing noise produced at the plant. All components within the proposed project would be designed in accordance with noise ordinances of the County, to ensure that noise thresholds at the property boundary do not exceed day and nighttime limitations for neighboring land uses. As a result, impacts would be less than significant.

Mitigation Measures

Mitigation Measure NOISE-1: Construction Noise. The following measures shall be implemented to reduce construction noise impacts on noise-sensitive receptors:

- CVWD shall notify in writing all landowners and occupants of properties within 500 feet of the construction area before construction commences. A Noise Complaint Coordinator shall be responsible for responding to complaints regarding construction noise and ensuring that reasonable measures are implemented.
- Construction equipment noise shall be minimized by muffling and shielding intakes and exhaust on construction equipment and implementing mobile or stationary sound barriers that block the line-of-sight between the noise source and noise sensitive receiver where necessary to achieve a minimum 11 dBA reduction. Mobile or stationary sound barriers shall only be required for pipeline installation construction activities occurring within 50 feet of noise sensitive uses.

Significance Determination

Less than Significant Impact with Mitigation

Groundborne Vibration and Noise

Impact 3.11-2: Would the proposed project generate excessive groundborne vibration or groundborne noise levels?

Phase 1, 2, 3

The proposed project would not generate excessive groundborne vibration or groundborne noise levels. Potential impacts would be less than significant.

Construction

Tertiary Treatment Facilities and Pipelines

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 proposed project would employ conventional activities and the equipment/techniques to be used would not cause excessive groundborne vibration; however, drilling could be required during pipeline installation. As shown in **Table 3.11-10**, use of heavy equipment during construction generates reference vibration levels of up to 0.089 in/sec PPV or 87 VdB RMS (large bulldozer) at a distance of 25 feet, though the Project here will not result in any construction within 25 feet of any residences.

TABLE 3.11-10
VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT

Construction Equipment	PPV at 25 Feet (inches/second)	RMS at 25 Feet (VdB)	PPV at 100 Feet (inches/second)	RMS at 100 Feet (VdB)
Large Bulldozer	0.089	87	0.011	69
Loaded Trucks	0.076	86	0.010	68
Jackhammer	0.035	79	0.004	61
Small Bulldozer	0.003	58	0.0004	39

Source: FTA 2018

Construction of pipelines could require jack and bore techniques depending on the local geology and infrastructure to be avoided, such as roads and other linear features, which does not generate substantial groundborne vibration. The nearest structure to expansion of the WRP 4 facility is the residence to the north across 62nd Avenue, as well as various residences along the Phase 2 and 3 pipelines routes. The distance to the residential structure façade is approximately 100 feet from the centerline of the roadway. At this distance, the sensitive receptors would experience vibration levels up to 0.011 in/sec PPV or 69 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

Tertiary Treatment Facilities and Pipelines

Operation of the facilities 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

Airport Noise

Impact 3.11-3: Would the proposed project expose people residing or working in the project area to excessive noise levels in 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?

Phase 1, 2, 3

The proposed project would not expose people residing or working in the project area to excessive noise levels in 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. Potential impacts would be less than significant.

Construction and Operation***Tertiary Treatment Facilities and Pipelines***

The Jacqueline Cochran Regional Airport is located approximately 2 miles to the northwest of the WRP 4 facility. The Jacqueline Cochran Regional Airport has runways with a northwest to southeast and south to north orientation. There may be occasional flyovers from small general aviation aircrafts, but no commercial flights are scheduled to fly directly over the airspace serviced by the Jacqueline Cochran Regional Airport. The WRP 4 modifications and pipeline installation are outside of the 55 dBA CNEL contour for the Jacqueline Cochran Regional Airport. Because of the nature of the proposed project, which includes water infrastructure, the proposed project would not result in people residing or working in the proposed project area exposed to excessive noise levels. Therefore, implementation of the proposed project would not expose people to excessive airport noise levels, and impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.11-4: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to noise and vibration?

Phase 1, 2, and 3

Existing planning documentation outlined in Section 3.0.2, *Cumulative Impacts Methodology*, and in this section identifies local and regional plans that describe or evaluate regional or area wide conditions contributing to cumulative impacts. Planned residential development in the proposed project area is slated for areas east of the Jacqueline Cochran Regional Airport in the community of Thermal, which is north of

the proposed project area (County of Riverside 2021). The areas in the immediate vicinity of the proposed project are planned to be maintained as agricultural land. To ensure impacts during construction are reduced to a less than significant level, Mitigation NOISE-1 would require notification of sensitive receptors and noise reduction measures to reduce noise levels below County and FTA thresholds. Any projects constructed or operated within the proposed project area over the 20 year implementation timeframe would be required to undergo similar appropriate assessment of noise to determine whether projects impact the existing ambient noise quality, similar to the proposed project. Further, each proposed project would be required to comply with the applicable federal, state, and local regulations and engineering standards discussed in Section 3.11.1, *Regulatory Framework*. As a result, impacts would not be cumulatively considerable and cumulative impacts would be less than significant.

Mitigation Measures

Implement Mitigation Measure NOISE-1.

Significance Determination

Less than Significant Impact with Mitigation

3.11.4 References

Caltrans, 1998. *Technical Noise Supplement*. October.

Caltrans, 2020. *Transportation and Construction Vibration Guidance Manual*. April.

County of Riverside, 2007 and 2013. *General Plan Noise Element and County Code*.

County of Riverside, 2021. Eastern Coachella Valley Area Plan. Available at: <https://planning.rctlma.org/sites/g/files/alnop416/files/migrated/Portals-14-genplan-GPA-2022-Compiled-ECVAP-4-2022-rev.pdf>, February 1, 2024.

Federal Highway Administration (FHWA), 2006. *FHWA Highway Construction Noise Handbook*. August.

Federal Transit Administration (FTA), 2018. *Transit Noise and Vibration Impact Assessment*. September.

Minnesota Department of Transportation (Minnesota DOT), 2011. *Highway Traffic Noise: Assessment and Abatement*. Available at: <https://www.dot.state.mn.us/environment/noise/pdf/noisebrochure5-24-11.pdf>

United States Environmental Protection Agency (USEPA), 1974. "EPA Identifies Noise Levels Affecting Health and Welfare." April 12. Available at: <https://archive.epa.gov/epa/aboutepa/epa-identifies-noise-levels-affecting-health-and-welfare.html>; accessed on June 7, 2017.

3.12 Transportation

This section addresses the potential impacts related to transportation and traffic associated with implementation of the proposed project. This section includes: a description of existing transportation and traffic conditions in the surrounding area; a summary of applicable regulations related to transportation and traffic; and an evaluation of the potential for the proposed project to result in environmental impacts related to transportation and traffic on the proposed project site and in the surrounding area. In addition, an evaluation of the potential cumulative impacts is provided.

3.12.1 Regulatory Framework

State

California Department of Transportation (Caltrans)

Caltrans manages interregional transportation, including management and construction of the California highway system. In addition, Caltrans is responsible for permitting and regulation of the use of state roadways. Caltrans has jurisdiction over state highways and sets maximum load limits for trucks and safety requirements for oversized vehicles that operate on highways. Caltrans' construction practices require temporary traffic control planning "when the normal function of a roadway, or private road open to public travel, is suspended."

The proposed project area includes interconnected Interstates and California State routes managed by Caltrans that provide critical access to Riverside County. As such, the following Caltrans regulations apply to potential transportation and traffic impacts associated with the proposed Program.

- California Vehicle Code (CVC), division 15, chapters 1 through 5 (Size, Weight, and Load). Includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways.
- California Street and Highway Code Sections 660-711. Caltrans encroachment regulations would apply to construction of the proposed Program components within and immediately adjacent to roadways, as well as the transportation of construction crews and construction equipment throughout the Program area. Caltrans requires that permits be obtained for transportation of oversized loads, certain materials, and construction-related traffic disturbance.

Senate Bill No. 743

Approved in 2013, Senate Bill (SB) 743 amended the CEQA Guidelines to provide an alternative to level of service (LOS) for evaluating transportation impacts. In accordance with SB 743, the new CEQA Guidelines Section 15064.3, subdivision (b) was adopted in December 2018 by the California Natural Resources Agency. These revisions to the CEQA Guidelines criteria for determining the significance of transportation impacts are primarily focused on projects within transit priority areas and shift the focus from automobile delay to reduction of greenhouse gas emissions, creation of multimodal networks, and promotion of a mix of land uses. Automobile delay, as measured by LOS and other similar metrics, generally no longer constitutes a significant environmental effect under CEQA. The intent of this legislation is to balance the need for traffic LOS standards with the need to build infill housing and mixed-use commercial developments within walking distance of mass transit facilities, downtowns, and town centers. In doing so, this legislation aims to provide greater flexibility to local governments to

balance these sometimes competing needs. However, a jurisdiction may still adopt LOS as a performance standard for analyzing traffic conditions and maintaining throughput on its highway system. The Governor's Office of Planning and Research (OPR) has adopted changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. 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.

Regional

Connect SoCal 2024 – The 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy

On May 7, 2020, the Southern California Association of Governments (SCAG) adopted its 2024-2050 Regional Transportation Plan (RTP) known as Connect SoCal 2024. Connect SoCal 2024 is a long-range visioning plan that balances future mobility and housing needs with economic and environmental and goals. Connect SoCal 2024 embodies a collective vision for the region's future based on input from local governments, county transportation commissions (CTCs), tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura (SCAG 2024).

Connect SoCal 2024 is an important planning document for the region, allowing project sponsors to qualify for federal funding. In addition, Connect SoCal 2024 identifies a combination of transportation and land use strategies that help the region achieve state greenhouse gas emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, and support the vital goods movement industry.

Local

County of Riverside General Plan

C 1.4: Utilize existing infrastructure and utilities to the maximum extent practicable and provide for the logical, timely, and economically efficient extension of infrastructure and services.

3.12.2 Environmental Setting

Riverside County's transportation system is composed of numerous state highways (both freeways and arterial highways), as well as numerous county and city routes. The transit system includes public transit systems, common bus carriers, AMTRAK (intercity rail service), Metrolink (commuter rail service), and other local agency transit and paratransit services. In addition, the Riverside County transportation system includes general aviation facilities, limited passenger air service within the county, freight rail service, bicycle facilities, and other services for non-motorized forms of transportation (multipurpose trails) (County of Riverside 2020).

The proposed project is located within the County of Riverside (County). Details about the Interstate and State highways and other major roadways found within the proposed project area are described below.

- **State Route (SR) 111** is the main north-south route and retail corridor through the Coachella Valley. It begins near the Calexico West Port of Entry, where Calexico connects with the Mexican city Mexicali,

and ends at an interchange with I-10 near the foot of San Jacinto Peak, just east of the San Gorgonio Pass. In the vicinity of the proposed project area, SR 111 has one travel lane in each direction.

- **SR 86** is a north–south state highway in the U.S. State of California that connects the Imperial and Coachella valleys in the southeastern desert region of the state. SR 86 begins at an intersection with SR 111 just east of the town of Heber and ends at an interchange with I-10. In the vicinity of the proposed project area, SR 86 has two travel lanes in each direction.

The existing WRP 4 site is bordered by Avenue 62 to the north, Avenue 64 to the south, and Fillmore Street to the west. These local roadways are classified by the County as collector streets (County of Riverside 2021a).

Public Transit System

Sunline Transit Agency operates a fixed route bus network comprised of 9 lines throughout the Coachella Valley. Sunline routes 8 and 9 run in the vicinity of the proposed project site (Sunline Transit Agency 2023).

Bicycle and Pedestrian Facilities

Pedestrian facilities within the proposed project area include sidewalks, walkways, bridges, crosswalks (County of Riverside 2020). There are Class I bikeways in the proposed project area as well as some limited Class 1 Bikeway/Regional Trails (County of Riverside 2021a). These combination trails function as regional connectors linking communities and planned trails.

3.12.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to transportation and traffic. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Result in cumulatively considerable impacts to transportation and traffic.

Impact Analysis

Circulation System

Impact 3.12-1: Would the proposed project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Phase 1, 2, and 3

The proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Mitigation Measure TRA-1 would be implemented to reduce potential impacts related to lane closures. Potential impacts would be less than significant with mitigation.

Construction

Tertiary Treatment Facilities

Construction of the proposed tertiary treatment facilities would generate vehicle trips associated with both construction worker trips and material and equipment hauling. It is anticipated that approximately 5 to 10 workers would be needed per day for construction activities at WRP 4 which would generate up to 20 daily one-way trips (for tertiary treatment facilities and pipelines). Construction-related equipment needed for material hauling and soil transport could generate approximately 8 one-way trips per day (for tertiary treatment facilities and pipelines). The increased traffic volume that would result from constructing the proposed project would have a nominal impact on local circulation system performance. Further, these increases would cease following completion of construction activities. Therefore, it is not anticipated construction activities associated with the tertiary treatment facilities would have the potential to result in a substantial increase in vehicle trips on roadways compared to existing traffic conditions. Additional construction vehicle traffic would not result in the long-term degradation of circulation system conditions at the proposed project site and the impact would be less than significant.

Pipelines

Construction of the proposed recycled water pipelines would generate vehicle trips associated with both construction worker trips and material and equipment hauling. It is anticipated that approximately 5 to 10 workers would be required during construction of the proposed new and repurposed pipelines which would generate up to 20 one-way vehicle trips per day (for tertiary treatment facilities and pipelines). Construction-related equipment needed for material hauling and soil transport could generate approximately 8 one-way truck trips per day (for tertiary treatment facilities and pipelines). The increased traffic volume that would result from constructing the proposed project would have a nominal impact on local circulation system performance. Further, these increases would cease following completion of construction activities. Construction of pipelines would involve the conventional cut and cover trenching technique; however, trenchless directional drill construction methods would be used for crossings of major channels, highways, and railroads. Construction of the majority of the pipelines could impede traffic flow because a large portion of the proposed pipelines would be installed and staged within rights-of-way and could temporarily require partial or complete road closures. Additionally, construction of some of the proposed pipelines could disrupt the existing bus routes within the project area due to the proximity of the proposed pipeline alignment to the Sunline Route 8. Furthermore, construction of the proposed facilities could result in bike pathway and sidewalk closures in the project area for areas in the vicinity of pipeline construction shown on Figure 2-1 (see Draft EIR Chapter 2.0, *Project Description*). To reduce this potentially significant impact, the proposed project would be required to implement

Mitigation Measure TRA-1 which requires a traffic control plan that would provide traffic control, flagging, and signage, and measures to minimize lane closures. As a result, the proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, with implementation of mitigation measures, and impacts would be reduced to a less than significant level.

Operation

Tertiary Treatment Facilities and Pipelines

Following construction, there would be operational traffic associated with worker commute, chemical deliveries, and screening removal at the tertiary treatment facilities. It is estimated that an average of five chemical truck deliveries per month and four truck trips per week for screenings and grit removal would be required. No additional CVWD operators would be required to operate the proposed modifications; however, on occasion, maintenance and repair may be required throughout the lifetime of the proposed project. Pipelines would be contained entirely underground and would require no maintenance. Therefore, operation of the proposed project would not generate a significant amount of new trips that would permanently affect traffic volume on local or regional roadways. Impacts to the existing circulation system, including public transit and bicycles, associated with operation of the proposed project would have a less than significant impact.

Mitigation Measures

Mitigation Measure TRA-1: Traffic Control Plan. For construction of pipelines, CVWD shall require that contractors prepare a construction Traffic Control Plan that includes the following elements:

- Show all signage, striping, delineated detours, flagging operations, and any other devices that will be used during project construction to guide motorists, bicyclists, and pedestrians safely through the construction area and allow for adequate access and circulation.
- Develop circulation and detour plans if necessary to minimize impacts to local street circulation. For roadways requiring lane closures that would result in a single open lane, maintain alternate one-way traffic flow and utilize flagger-controls.
- Coordinate with Riverside Transit Authority at least 30 days prior to construction of pipelines within roadways or rights-of way that coincide with public transit routes to determine whether construction of the proposed project would affect bus stop locations or otherwise disrupt public transit routes. A plan shall be developed to relocate bus stops or reroute buses to avoid disruption of transit service.
- The Traffic Control Plan shall be prepared to ensure that emergency access will not be restricted. CVWD shall also notify local emergency responders of any planned partial or full lane closures required for project construction. Emergency responders include fire departments, police departments, and ambulances that have jurisdiction within the project area. Written notification and disclosure of lane closure location must be provided at least 30 days prior to the planned closure to allow emergency response providers adequate time to prepare for lane closures.

Significance Determination

Less than Significant Impact with Mitigation

Vehicle Miles Traveled

Impact 3.12-2: Would the proposed project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3, subdivision (b) includes criteria for determining the significance of transportation impacts that are primarily focused on projects within transit priority areas and shifts the focus from driver delay to reduction of GHG emissions, creation of multimodal networks, and promotion of a mix of land uses. 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. OPR has published the Technical Advisory on Evaluating Transportation Impacts in CEQA, and the recommended significance criteria for the operation of new projects is to generate 15 percent less VMT per capita (or per employee) compared to existing conditions (OPR 2018). OPR has not adopted specific VMT metrics or thresholds of significance for construction-related traffic.

Phase 1, 2, and 3

The proposed project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Potential impacts would be less than significant.

Construction

Tertiary Treatment Facilities and Pipelines

Many jurisdictions in Southern California consider construction-related traffic to cause adverse but not lasting intersection deficiencies because, while sometimes inconvenient, construction-related traffic efforts are temporary. As documented under Impact 3.12-1, above, construction of the proposed project would generate 20 daily one-way worker vehicle trips per phase, and up to 8 daily one-way truck trips. OPR noted in the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, that projects which generate or attract fewer than 110 trips per day may be assumed to result in less than significant transportation impacts (OPR 2018). Since construction of the proposed project would generate temporary vehicle trips and result in less than 110 trips per day, and since OPR has not established construction-related VMT thresholds, the proposed project would result in a less than significant impact with respect to construction-related VMT.

Operation

Tertiary Treatment Facilities and Pipelines

Operation and maintenance of the proposed project would not require any new employees or maintenance activities. It is estimated that an average of five chemical truck deliveries per month and four truck trips per week for screenings and grit removal would be required, which are included in the existing operations for WRP 4. As a result, the proposed project would not add any new operational trips and impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Traffic Hazards

Impact 3.12-3: Would the proposed project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Phase 1, 2, and 3

The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Potential impacts would be less than significant.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

The proposed project would not involve any roadway improvements or alterations and would not increase hazards due to a design feature like a sharp curve or a dangerous intersection. The proposed project would involve the use of haul trucks and the use of oversized vehicles during construction that could be an incompatible use and could create a hazard to the public by limiting motorist views on roadways by the obstruction of space. However, oversized loads associated with construction and/or operation of the proposed project would be required to comply with applicable CVC and Caltrans requirements applicable to licensing, size, weight, load, and roadway encroachment of construction vehicles and trucks. Compliance with regulatory requirements to reduce hazards caused by incompatible roadway uses during construction would minimize the potential for hazards to other vehicles to less than significant levels.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Emergency Access

Impact 3.12-4: Would the proposed project result in inadequate emergency access?

Phase 1, 2, and 3

The proposed project would not result in inadequate emergency access. Mitigation Measure TRA-1 would be implemented to reduce potential construction-related impacts to emergency response plans or emergency evacuation plans. Potential impacts would be less than significant with mitigation.

Construction

Tertiary Treatment Facilities and Pipelines

Construction of the tertiary treatment facilities on the existing WRP 4 property would not disrupt emergency services. Depending on the timing and duration of construction activities, construction of the proposed new and repurposed pipelines could delay emergency vehicle response times or otherwise disrupt delivery of emergency services. However, the proposed project would implement Mitigation Measure TRA-1, which requires coordination with emergency service providers at least once per month prior to construction. Adherence to this mitigation measure would reduce any potential impacts regarding emergency services to less than significant levels.

Operation

Tertiary Treatment Facilities and Pipelines

Once constructed, the proposed tertiary treatment facilities would be located on the existing WRP 4 property and the proposed new and repurposed pipelines would be located underground. Therefore, operation and maintenance of the proposed project would not disrupt delivery of emergency services and no impact would occur during operation.

Mitigation Measures

None Required

Significance Determination

No Impact

Cumulative Impacts

Impact 3.12-5: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative short-term and long-term impacts to transportation and traffic?

Phase 1, 2, and 3

Existing planning documentation outlined in Section 3.0.2, *Cumulative Impacts Methodology*, and in this section identifies local and regional plans that describe or evaluate regional or area wide conditions contributing to cumulative impacts. Planned residential development in the proposed project area is slated for areas east of the Jacqueline Cochran Regional Airport in the community of Thermal, which is north of the proposed project area (County of Riverside 2021b). As documented under Impacts 3.12-1 and 3.12-2, above, construction of the proposed project would generate temporary vehicle trips and result in less than 110 trips per day. Thus, the proposed project would have de minimis VMT and traffic impacts and would not incrementally contribute to cumulative traffic and transportation impacts. In the event of other planned cumulative development occurring on the road concurrently with the proposed project, Mitigation Measure TRA-1 would be implemented to minimize the proposed project's contribution to cumulative traffic and transportation impacts. With implementation of traffic circulation minimization mitigations, the proposed project would be in compliance with local plans and policies, and would not contribute to significant transportation impacts. As a result, transportation impacts would be less than cumulatively considerable. A less than significant cumulative transportation impact would occur.

Mitigation Measures

Implement Mitigation Measure TRA-1.

Significance Determination

Less than Significant Impact with Mitigation

3.12.4 References

- County of Riverside, 2020. Circulation Element. Available at https://planning.rctlma.org/Portals/14/genplan/2019/elements/Ch04_Circulation_072720v2.pdf. Accessed December 26, 2023.
- County of Riverside, 2021a. County Maintained Road Book. Available at <https://trans.rctlma.org/county-maintained-road-book#2741959481-4265952967>. Accessed December 24, 2023.
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- Governor's Office of Planning and Research (OPR), 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018. Available at https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed December 26, 2023.
- Southern California Association of Governments (SCAG), 2024. 2024-2050 Regional Transportation Plan and Sustainable Communities Strategy. <https://ceqanet.opr.ca.gov/2022100337/2>. Accessed October 2024.
- Sunline Transit Agency, 2023. *Routes and Schedules*. Available at <https://www.sunline.org/services/sunbus/routes-and-schedules>. Accessed December 26, 2023.

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3.13 Tribal Cultural Resources

This section addresses the potential impacts related to tribal cultural resources associated with implementation of the proposed project. This section includes: a description of the tribal cultural resources on the proposed project site and in the adjacent area in the Coachella Valley; a summary of applicable regulations related to tribal cultural resources; and an evaluation of the potential for the proposed project to result in environmental impacts related to tribal cultural resources on the proposed project site. In addition, an evaluation of the potential cumulative impacts is provided. Unless otherwise specifically cited, the setting information and analysis in this section is based on the *Water Reclamation Plant No. 4 Non-Potable Water Improvements Project, Cultural Resources Assessment*, a confidential report prepared by ESA and dated July 2024.

3.13.1 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 provides 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

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)

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

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

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 County Coroner is required to contact the California Native American Heritage Commission (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,

³ Public Resources Code, Section 21080.3.2(b)

⁴ Public Resources Code, Section 21082.3(d)(2) and (3)

⁵ Public Resources Code, Section 21082.3(c)(2)(B).

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.

Local

The County of Riverside's General Plan, Multipurpose Open Space Element, contains the following tribal cultural resources policies relevant to the proposed project:

Policy OS 19.2: The County of Riverside shall establish a cultural resources program in consultation with Tribes and the professional cultural resources consulting community. Such a program shall, at a minimum, address each of the following: application processing requirements; information database(s); confidentiality of site locations; content and review of technical studies; professional consultant qualifications and requirements; site monitoring; examples of preservation and mitigation techniques and methods; and the descendant community consultation requirement of local state and federal law.

3.13.2 Environmental Setting

Ethnographic Setting

Cahuilla

The proposed project site is situated within a region historically occupied by a Native American group known as the Cahuilla near the boundary with the Juaneño and Luiseño (Bean 1978, Kroeber 1925). The term Cahuilla likely derived from the native word *káwiya*, meaning “master” or “boss” (Bean 1978:575). Traditional Cahuilla ethnographic territory extended west to east from the present-day City of Riverside to the central portion of the Salton Sea in the Colorado Desert, and south to north from the San Jacinto Valley to the San Bernardino Mountains. The Cahuilla, like their neighbors to west, the Luiseño and Juaneño, and the Cupeño to the south, are speakers of a Cupan language. Cupan languages are part of the Takic linguistic subfamily of the Uto-Aztecan language family. It is thought that the Cahuilla migrated to southern California approximately 2,000 to 3,000 years ago, most likely from the southern Sierra Nevada mountain ranges of east-central California with other Takic speaking social groups (Moratto 1984:559).

Cahuilla villages were usually located in canyons or on alluvial fans near a source of accessible water. Each lineage group maintained their own houses (*kish*) and granaries, and constructed ramadas for work and cooking. Sweat houses and song houses (for non-religious music) were also often present. Each community also had a separate house for the lineage or clan leader. A ceremonial house, associated with the clan leader was where major religious ceremonies were held. Houses and ancillary structures were often spaced apart, and a “village” could extend over a mile or two. Each lineage had ownership rights to various resource collecting locations, “including food collecting, hunting, and other areas. Individuals

also owned specific areas or resources, e.g., plant foods, hunting areas, mineral collecting places, or sacred spots used only by shamans, healers and the like” (Bean 1990:2).

The Cahuilla hunted a variety of game, including mountain sheep, cottontail, jackrabbit, mice, and wood rats, as well as predators such as mountain lion, coyote, wolf, bobcat, and fox. Various birds were also consumed, including quail, duck, and dove, plus various types of reptiles, amphibians, and insects. A wide variety of tools and implements were employed by the Cahuilla to gather and collect food resources. For the hunt, these included the bow and arrow, traps, nets, slings and blinds for hunting land mammals and birds, and nets for fishing. Rabbits and hares were commonly brought down by the throwing stick; however, when communal hunts were organized for these animals, the Cahuilla often utilized clubs and very large nets (Bean 1990).

The Cahuilla had adopted limited agricultural practices by the time Euro-Americans traveled into their territory. Bean (1978:578) has suggested that their “proto-agricultural techniques and a marginal agriculture” consisting of beans, squash and corn may have been adopted from the Colorado River groups to the east. Certainly by the time of the first Romero Expedition in 1823-24, they were observed growing corn, pumpkins, and beans in small gardens localized around springs in the Thermal area of the Coachella Valley (Bean and Mason 1962:104). The introduction of European plants such as barley and other grain crops suggest an interaction with the missions or local Mexican rancheros. Despite the increasing use and diversity of crops, no evidence indicates that this small-scale agriculture was anything more than a supplement to Cahuilla subsistence, and it apparently did not alter social organization.

By 1819, several Spanish mission outposts, known as *assistencias*, were established near Cahuilla territory at San Bernardino and San Jacinto. Cahuilla interaction with Europeans at this time was not as intense as it was for native groups living along the coast. This was likely due to the local topography and lack of water, which made the area less attractive to colonists. By the 1820s, however, European interaction increased as mission ranchos were established in the region and local Cahuilla were employed to work on them.

The Bradshaw Trail was established in 1862 and was the first major east-west stage and freight route through the Coachella Valley. Traversing the San Geronimo Pass, the trail connected gold mines on the Colorado River with the coast. Bradshaw based his trail on the Cocomaricopa Trail, with maps and guidance provided by local Native Americans. Journals by early travelers along the Bradshaw Trail told of encountering Cahuilla villages and walk-in wells during their journey through the Coachella Valley. The continued influx of immigrants into the region introduced the Cahuilla to European diseases. The single worst recorded event was a smallpox epidemic in 1862-63. By 1891, only 1,160 Cahuilla remained within what was left of their territory, down from an aboriginal population of 6,000–10,000 (Bean 1978:583-584). By 1974, approximately 900 people claimed Cahuilla descent, most of who resided on reservations.

Between 1875 and 1891, the United States established ten reservations for the Cahuilla within their traditional territory. These reservations include: Agua Caliente, Augustine, Cabazon, Cahuilla, Los Coyotes, Morongo, Ramona, Santa Rosa, Soboba, and Torres-Martinez (Bean 1978:585). Four of the reservations are shared with other groups, including the Chemehuevi, Cupeño, and Serrano. The

Augustine Band of Cahuilla Indians and Torres Martinez Desert Cahuilla Indians Reservations, which includes people of Cahuilla descent, are closest to the proposed project site.

The Cahuilla spoke a language belonging to the Cupan group of the Takic subfamily (Bean 1978). The Cahuilla are generally divided into three groups based on their geographic setting: the Pass Cahuilla of the Beaumont/Banning area; the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains; and the Desert Cahuilla from the Coachella Valley, as far south as the Salton Sea. The Cahuilla occupied territories that ranged from low or moderately low desert to the mountain regions of the Transverse and Peninsular ranges. Villages were placed near canyons that received substantial precipitation or were adjacent to streams and springs (Bean 1978). House structures of the Cahuilla ranged from “brush shelters to dome-shaped or rectangular structures 15-20 feet long” (Bean 1978). The Cahuilla social structure revolved around clans and exogamous moieties (components connected through inter-marriage). Hunting, in conjunction with the exploitation of a variety of available resources, governed the Cahuilla subsistence strategy. The material culture of the Cahuilla was extensive and varied, and included pottery, ornamental items, and a number of knapped stone tools. Prior to European contact, population estimates for the Cahuilla range from 3,600 to as high as 10,000 persons. Due to European diseases, such as smallpox, the Cahuilla population was decimated during the 19th century. However, unlike other Native American populations in southern California, the Cahuilla were able to retain their autonomy even after the arrival and increasing control of European explorers and the settling governments that followed. It was not until 1891 that the Cahuilla culture and its population began to succumb to the pressure of European and, later, United States governing bodies (Bean 1978). Today, there are nine federally recognized tribes in California who share Cahuilla tribal affiliation, language, and culture, including the Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Indians, Cabazon Band of Mission Indians, Cahuilla Band of Mission Indians, Los Coyotes Band of Cahuilla and Cupeño Indians, Morongo Band of Mission Indians, Ramona Band of Cahuilla Indians, Santa Rosa Band of Cahuilla Indians, and Torres Martinez Desert Cahuilla Indians.

Archival Research

EIC Records Search

A records search for the proposed project was conducted on December 6, 2023 through the California Historical Resources Information System (CHRIS) Eastern Information Center (EIC), housed at the University of California, Riverside. The records search included a review of all recorded cultural resources within a 0.5-mile radius of the proposed project as well as a review of cultural resource reports on file. A total of 48 cultural resources studies have been conducted within a 0.5-mile radius of the proposed project. Of the 48 studies, approximately 15 have been conducted within the proposed project.

A total of 25 cultural resources have been previously recorded within 0.5-mile radius of the proposed project. Of the 25 resources, one is a precontact isolate (P-33-24737); five are historic-period isolates (P-33-24728, -24729, -24735, -24736, and -24738); and 19 are historic architectural resources (P-33-9498, -17259, -19867, -20750, -20844, -20845, -20904, -20907, -20908, -20922, -20923, -20927, -20928, -24102, -24103, -24104, -24105, -24263, and -29131). Of the 25 resources, 10 are located within the proposed project areas and one is located immediately adjacent. More specifically, one resource (P-33-20750) is located within Phase 1 pipeline; five resources (P-33-20750, -20922, -24102, 24105, -24728) are located within Phase 2 pipelines; and six resources (P-33-9498, -20845, -20908, -20922, -20923, and -24263) are located within

Phase 3 pipelines. The 10 resources within the proposed project consist of historic architectural resources (SPRR/UPRR, asphalt/concrete paved/dirt access roads, and Durbrow drain) and a precontact isolate. One of the resources (P-33-20922) within the proposed project overlap all three phases of the proposed project. No resources are located within the WRP 4; however, one historic built environment resource (P-33-17259/Coachella Valley Stormwater Channel) is located immediately adjacent.

Of the 10 resources within the proposed project, six (P-33-9498, -20845, -20908, -20922, -20923, and -24728) do not appear to have been previously evaluated; while the remaining four resources (P-33-20750, -24102, -24105, and -24263) were found ineligible for the NRHP/CRHP, or local designation through survey evaluation (6Z). The resource located immediately adjacent to the proposed project (P-33-17259) was found ineligible for the NRHP/CRHP, or local designation through survey evaluation (6Z).

Sacred Lands File Search

A Sacred Lands File (SLF) search was requested from the NAHC on January 8, 2024. The SLF search results provided on February 5, 2024 indicated that the results were positive. The response letter did not provide details on resources within the proposed project, but suggested contacting the Augustine Band of Cahuilla Indians, the Cabazon Band of Mission Indians, and the Torres-Martinez Desert Cahuilla Indians. The NAHC also provided a list of other Native American tribes to contact as they may have knowledge of cultural resources within the proposed project site which are included as Table 3 in the *Water Reclamation Plant No. 4 Non-Potable Water Improvements Project, Cultural Resources Assessment*.

Native American Correspondence and AB 52 Tribal Consultation

On February 1, 2024, CVWD sent consultation notification letters via certified mail to Native American groups pursuant to the requirements of AB 52 pertaining to government-to-government consultation (see **Appendix TRIBAL**). **Table 3.13-1** summarizes CVWD's consultation efforts. To date, CVWD has conducted consultation with two Native American Tribes: The Cahuilla Band of Indians and the Agua Caliente Band of Cahuilla Indians. CVWD engaged in dialogue with the tribes to further delineate any known resources potentially impacted by the proposed project, or nearby, and other concerns with the proposed project. In consultation meetings, the Cahuilla Band of Indians requested the final Cultural Report and Mitigation Measures, in addition to updates as the proposed project progresses. In an email received on October 8, 2024, Lorrie Gregory, the Cultural Resource Coordinator for the Cahuilla Band of Indians, indicated that the Cahuilla Band of Indians has no further questions or comments and kindly concurred to the closure of AB 52 consultation. In consultation meetings, the Agua Caliente Band of Cahuilla Indians requested the final Cultural Report and Mitigation Measures. In addition, the Agua Caliente Band of Cahuilla Indians also requested a Cultural/Archaeological Monitor during construction. In a letter received on October 16, 2024, Claritsa Duarte, a Cultural Resources Analyst for the Agua Caliente Band of Cahuilla Indians, indicated that the tribe defers to the Torres Martinez Desert Cahuilla Indians as the proposed project is adjacent to the Torres Martinez Desert Cahuilla Indians Reservation. The letter also indicated that the concerns of the Agua Caliente Band of Cahuilla Indians have been addressed and proper mitigation measures have been prepared, thus this letter concludes their AB 52 consultation efforts. In an email received on September 23, 2024, Gary Wayne Resvaloso Jr indicated that the Torres Martinez Desert Cahuilla Indians would follow up regarding consultation for the proposed project.

**TABLE 3.13-1
SUMMARY OF AB 52 CONSULTATION EFFORTS**

Individual Contacted	Tribe/Organization	Date Letter Mailed	Response Received
Reid Milanovich, Archaeologist, Tribal Chairperson	Agua Caliente Band of Cahuilla Indians	February 1, 2024	A letter from the Agua Caliente Band of Cahuilla Indians dated March 4, 2024 requested the following: formal consultation, a cultural resources inventory, a copy of the cultural report, a copy of the records search, mitigation measures when they are finalized, the presence of an archaeologist and an approved Agua Caliente Native American Cultural Resource Monitor(s) during any ground disturbing activities. In a letter received on October 16, 2024, Claritsa Duarte, a Cultural Resources Analyst for the Agua Caliente Band of Cahuilla Indians, indicated that the tribe defers to the Torres Martinez Desert Cahuilla Indians as the proposed project is adjacent to the Torres Martinez Desert Cahuilla Indians Reservation. The letter also indicated that the concerns of the Agua Caliente Band of Cahuilla Indians have been addressed and proper mitigation measures have been prepared, thus this letter concludes their AB 52 consultation efforts.
Patricia Garcia, Tribal Historic Preservation Director	Agua Caliente Band of Cahuilla Indians	February 1, 2024	A letter from the Agua Caliente Band of Cahuilla Indians dated March 4, 2024 requested the following: formal consultation, a cultural resources inventory, a copy of the cultural report, a copy of the records search, mitigation measures when they are finalized, the presence of an archaeologist and an approved Agua Caliente Native American Cultural Resource Monitor(s) during any ground disturbing activities. In a letter received on October 16, 2024, Claritsa Duarte, a Cultural Resources Analyst for the Agua Caliente Band of Cahuilla Indians, indicated that the tribe defers to the Torres Martinez Desert Cahuilla Indians as the proposed project is adjacent to the Torres Martinez Desert Cahuilla Indians Reservation. The letter also indicated that the concerns of the Agua Caliente Band of Cahuilla Indians have been addressed and proper mitigation measures have been prepared, thus this letter concludes their AB 52 consultation efforts.

Individual Contacted	Tribe/Organization	Date Letter Mailed	Response Received
Amanda Vance, Tribal Chairperson	Augustine Band of Cahuilla Indians	February 1, 2024	A letter from the Augustine Band of Cahuilla Indians dated February 13, 2024 noted that they are unaware of specific cultural resources that may be affected by the proposed project. The Augustine Band of Cahuilla Indians did not request consultation; however, they request to be notified in the event that any cultural resources are discovered during development.
Doug Welmas, Tribal Chairperson	Cabazon Band of Mission Indians	February 1, 2024	N/A
Laura Chatterton, Cultural Resource Specialist	Morongo Band of Mission Indians	February 1, 2024	A letter from the Morongo Band of Mission Indians dated March 7, 2024 noted that the proposed project is not located within the boundaries of the ancestral territory or traditional use area of the Cahuilla and Serrano people of the Morongo Band of Mission Indians. The Morongo Band of Mission Indians did not request consultation and encouraged consultation with tribes more closely associated with the lands upon which the proposed project is located.
Jill McCormick, Historic Preservation Officer	Quechan Tribe of the Fort Yuma Reservation	February 1, 2024	N/A
Jordan Joaquin, Tribal President	Quechan Tribe of the Fort Yuma Reservation	February 1, 2024	N/A
Lovina Redner, Tribal Chair	Santa Rosa Band of Mission Indians	February 1, 2024	N/A
Joseph Ontiveros, Cultural Resource Director	Soboba Band of Luiseno Indians	February 1, 2024	N/A
Thomas Torte, Jr., Tribal Chairman	Torres Martinez Desert Cahuilla Indians	February 1, 2024	In an email received on September 23, 2024, Gary Wayne Resvaloso Jr indicated that the Torres Martinez Desert Cahuilla Indians would follow up regarding consultation for the proposed project.
Gary Resvaloso, Cultural Resource Coordinator	Torres Martinez Desert Cahuilla Indians	February 1, 2024	In an email received on September 23, 2024, Gary Wayne Resvaloso Jr indicated that the Torres Martinez Desert Cahuilla Indians would follow up regarding consultation for the proposed project.
Darrell Mike, Tribal Chairman	Twenty-nine Palms Band of Mission Indians	February 1, 2024	N/A
Anthony Madrigal, Jr., Tribal Historic Preservation Officer	Twenty-nine Palms Band of Mission Indians	February 1, 2024	N/A
John Gomez, Jr., Cultural Resource Coordinator	Ramona Band of Cahuilla Indians	February 1, 2024	N/A
Ray Chapparosa, Tribal Chairperson	Los Coyotes Band of Cahuilla and Cupeno Indians	February 1, 2024	N/A

Individual Contacted	Tribe/Organization	Date Letter Mailed	Response Received
BobbyRay Esparza, Cultural Director	Cahuilla Band of Indians	February 1, 2024	A letter from the Cahuilla Band of Indians dated February 13, 2024 noted that they are unaware of any cultural resources at or near the proposed project area; however, the proposed project is located within Cahuilla traditional land use. The Cahuilla Band of Indians requested the formal consultation, a copy of the cultural report, a copy of the records search, and providing cultural monitoring for any ground disturbing activities. In an email received on October 8, 2024, Lorrie Gregory, the Cultural Resource Coordinator for the Cahuilla Band of Indians, indicated that the Cahuilla Band of Indians has no further questions or comments and kindly concurred to the closure of AB 52 consultation.

3.13.3 Impact Analysis and Mitigation Measures

Significance Criteria

The following criteria from CEQA Guidelines Appendix G are used to determine the impacts of the proposed project as related to tribal cultural resources. This Draft EIR assumes that the implementation of the proposed project would have a significant impact if it would:

- 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:
 - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).
 - A 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.
- Result in a cumulatively considerable impact to tribal cultural resources.

Methodology

The proposed project's potential impacts to tribal cultural resources have been evaluated using a variety of resources, including an SLF search conducted by the NAHC. AB 52 notification letters were sent to Native American groups and individuals indicated by the NAHC to solicit information regarding the presence of tribal cultural resources. Impacts were analyzed according to CEQA significance criteria described below.

Impact Analysis

Tribal Cultural Resource Identified in the CRHR

Impact 3.13-1: Would the proposed 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 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

Phase 1, 2, and 3

The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource. Mitigation Measure TCR-1 would be implemented in the event that unknown or unrecorded tribal cultural resources are encountered to reduce potential impacts. Potential impacts would be less than significant with mitigation.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

No tribal cultural resources were identified within or adjacent to the proposed project site during coordination. As previously discussed, the records search through the EIC indicates that a total of 25 cultural resources have been previously recorded within 0.5-mile radius of the proposed project. Of the 25 resources, 10 consist of historic architectural resources and are located within the proposed project areas, with one located immediately adjacent. The SLF search through the NAHC yielded positive results but did not provide details on resources within the proposed project, and suggested contacting the Augustine Band of Cahuilla Indians, the Cabazon Band of Mission Indians, and the Torres Martinez Desert Cahuilla Indians. According to correspondence with the Augustine Band of Cahuilla Indians and the Cahuilla Band of Indians, the tribes are unaware of any cultural resources at or near the proposed project area. While the Agua Caliente Band of Cahuilla Indians requested a Cultural/Archaeological Monitor during construction, the tribe later deferred to the Torres Martinez Desert Cahuilla Indians. The AB 52 tribal consultation demonstrated that the proposed project has some level of sensitivity due to the proposed project being adjacent to the Torres Martinez Desert Cahuilla Indians Reservation. Construction and operation of the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, as defined by Public Resources Code Section 21074(a), that is listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources as defined in Public Resources Code Section 5020.1(k). However, in the event that unknown or unrecorded tribal cultural resources are encountered during construction of the proposed project, **Mitigation Measure TCR-1** is required in order to reduce potential impacts to less than significant levels.

Mitigation Measures

Mitigation Measure TCR-1: Native American Monitor. Prior to the commencement of ground disturbing activity, the District shall notify the designated consulting Tribe of such activity. Should the designated consulting Tribe choose not to monitor or not respond within 14 days, the work can continue without a Tribal Monitor present. The on-site Tribal monitoring shall end when all initial ground disturbing excavation activities on the proposed project site are completed, or when the Tribal representatives and Tribal Monitor have indicated that the proposed project site has little to no potential for impacting tribal cultural resources.

In the event that cultural resources of Native American origin are identified during construction, CVWD will coordinate with the qualified archaeologist (who meets the Secretary of the Interior's Professional Qualifications Standards), and the designated consulting Tribe (if not present). If CVWD, in consultation with the designated consulting Tribe, identifies that the resource is a tribal cultural resource and thus significant under CEQA, avoidance of the resources will be explored. If avoidance is not feasible, a treatment plan shall be prepared and implemented in accordance with state guidelines and in consultation with the designated consulting Tribe. The treatment plan may include, but would not be limited to avoidance, capping in place, excavation and removal of the resource, interpretive displays, sensitive area signage, or other mutually agreed upon measure.

Significance Determination

Less than Significant Impact with Mitigation

Tribal Cultural Resource Determined to be Significant

Impact 3.13-2: Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources 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 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? 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.

Phase 1, 2, and 3

The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource. Mitigation Measure TCR-1 would be implemented in the event that unknown or unrecorded tribal cultural resources are encountered to reduce potential impacts. Potential impacts would be less than significant with mitigation.

Construction and Operation

Tertiary Treatment Facilities and Pipelines

No tribal cultural resources were identified within or adjacent to the proposed project site during coordination. As previously discussed, the records search through the EIC indicates that a total of 25 cultural resources have been previously recorded within 0.5-mile radius of the proposed project. Of the 25 resources, 10 consist of historic architectural resources and are located within the proposed project areas, with one located immediately adjacent. The SLF search through the NAHC yielded positive results but did not provide details on resources within the proposed project, and suggested contacting the Augustine Band of Cahuilla Indians, the Cabazon Band of Mission Indians, and the Torres Martinez Desert Cahuilla Indians. According to correspondence with the Augustine Band of Cahuilla Indians and the Cahuilla Band of Indians, the tribes are unaware of any cultural resources at or near the proposed project area. While the Agua Caliente Band of Cahuilla Indians requested a Cultural/Archaeological Monitor during construction, the tribe later deferred to the Torres Martinez Desert Cahuilla Indians. The AB 52 tribal consultation demonstrated that the proposed project has some level of sensitivity due to the proposed project being adjacent to the Torres Martinez Desert Cahuilla Indians Reservation. Construction and operation of the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, as defined by Public Resources Code Section 21074, that has been determined by a lead agency to be significant pursuant Public Resources Code Section 5024.1(c). However, in the event that unknown or unrecorded tribal cultural resources are encountered during construction of the proposed project, Mitigation Measure TCR-1 is required in order to reduce potential impacts to less than significant levels.

Mitigation Measures

Implement Mitigation Measure TCR-1

Significance Determination

Less than Significant Impact with Mitigation

Cumulative Impacts

Impact 3.13-3: Would concurrent construction and operation of the proposed project and planned cumulative development result in cumulative impacts to tribal cultural resources?

Phase 1, 2, and 3

Existing planning documentation outlined in Section 3.0.2, *Cumulative Impacts Methodology*, and in this section identifies local and regional plans that describe or evaluate regional or area wide conditions contributing to cumulative impacts. Future residential development in the vicinity of the proposed project would take place in areas east of the Jacqueline Cochran Regional Airport in the community of Thermal. The areas in the immediate vicinity of the proposed project are also planned to be maintained as agricultural land. Any projects constructed or operated within the proposed project over the 20 year implementation timeframe would require excavation that could potentially expose or damage potentially unknown or unrecorded tribal cultural resources. Nevertheless, in association with CEQA review, 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 tribal cultural resources and CEQA compliance require monitoring of excavation activities and treatment and/or curation of discovered resources where appropriate. Such standard construction practices, particularly over a range of project sites, provide for protection, recovery and curation of discovered resources if encountered and preserve their contributions, if significant, 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 tribal cultural resources 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 TCR-1 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 tribal cultural 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 tribal cultural 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

Implement Mitigation Measure TCR-1

Significance Determination

Less than Significant Impact with Mitigation

3.13.4 References

- Bean, Lowell J., 1978. Cahuilla. In California, edited by Robert F. Heizer, pp. 575–587. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.
- Bean, Lowell J., 1990 Ethnography of the Toro Canyon Cahuilla. Prepared for George Berkey & Associates, Inc. Cultural Systems Research, Inc., Menlo Park, California.
- Bean, Lowell J., and William B. Mason, 1962. *The Romero Expeditions, 1823-1826*. Palm Springs Desert Museum, Palm Springs, CA.
- ESA, *Water Reclamation Plant No. 4 Non-Potable Water Improvements Project, Cultural Resources Assessment* (Confidential). July 2024.
- Kroeber, Alfred J., 1925. *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78. Originally published 1925, Smithsonian Printing Office, Washington, D.C. Unabridged reprint 1976, Dover Publications, Inc. New York.
- Moratto, Michael, 1984. *California Archaeology*. Academic Press, New York.

CHAPTER 4

Other CEQA Considerations and Growth Inducement

4.1 Significant Irreversible Environmental Changes

Public Resources Code section 21100(b)(2) and CEQA Guidelines section 15126.2(d) 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 both construction and operation of the proposed project. 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 result in the irretrievable and irreversible commitment of energy resources in the form of diesel fuel, gasoline and electricity during construction and operation. Annual diesel fuel consumption associated with construction of the proposed project would be approximately 78,685 gallons per year during Phase 1 and approximately 92,957 gallons per year during Phase 2. During proposed project construction, on- and off-road vehicles would consume an estimated annual average of approximately 1,570 gallons of gasoline fuel in Phase 1 and 1,543 gallons of gasoline fuel in Phase 2. Electricity is supplied to WRP 4 by the Imperial Irrigation District (IID). Electricity use from construction would be short-term, limited to working hours, used for necessary construction-related activities, and small in comparison to overall IID annual demand. Construction of the proposed project would utilize fuel-efficient trucks and equipment consistent with federal and State regulations, such as fuel efficiency regulations in accordance with California Air Resources Board (CARB's) Pavley Phase I and II

standards. Operation-related fuel use would be negligible compared to construction. As such, the proposed project would comply with State measures to reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels. The total operation-related electricity consumption of the proposed project would be 30 MWh per year. The demand would represent approximately 0.0009 to 0.003 percent of IID's current base peak load conditions. As discussed in Section 3.6, *Energy*, the project would not result in the wasteful, inefficient or unnecessary consumption of energy during construction or operation. Therefore, impacts due to these irretrievable and irreversible commitments of resources are considered less than significant.

4.2 Growth Inducement

4.2.1 Introduction

The California Environmental Quality Act (CEQA) Guidelines (Section 15126.2(d)) require that an environmental impact report (EIR) include a discussion regarding the potential for project-related growth inducing impacts. The CEQA Guidelines provide the following guidance for the discussion and consideration of growth-inducing impacts:

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. An example of a project that is directly growth-inducing is one that involves construction of new housing. An example of an indirectly growth-inducing project is one that requires a substantial new permanent or temporary new employment demand that would then stimulate the need for additional housing and services. A project would also indirectly induce growth if it would remove an obstacle to additional growth and development, including a constraint on a required public service.

As stated in Chapter 2, Project Description, implementation of the Water Reclamation Plant No. 4 (WRP 4) Non-Potable Water Improvements Project (proposed project) would optimize use of recycled water and provide an alternate water supply for local irrigation that is not local groundwater or imported Colorado River water. By reducing Coachella Valley Water District's (CVWD) dependence on imported water, the proposed project provides a drought-resilient supply, which increases CVWD's water supply reliability.

4.2.2 Methodology

In accordance with the CEQA Guidelines, implementation of the proposed project could have an indirect growth inducement potential. As indicated in the CEQA Guidelines excerpt above, growth inducement itself is not necessarily an adverse impact. Rather, it is the potential consequences of growth (i.e. 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 local land use plans and growth management plans and policies for the area; this “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.

This section analyzes the nature and extent of growth inducement potential for the proposed project. The analysis includes an assessment of existing and projected population levels, and existing and projected water and recycled water supply and demand, as well as a discussion of conformance with pertinent general plans. Growth inducement potential is then assessed.

4.2.3 Project Area Population Projections

CVWD was formed in 1918 and services approximately 640,000 acres, primarily within Riverside County but also parts of northern Imperial and northeastern San Diego Counties. The Coachella Valley Regional Urban Water Management Plan (UWMP) (CVWD 2021) identifies municipal water demands and supplies in the Coachella Valley, as required by the Urban Water Management Act of 1983 in order to coordinate efforts on demand projections, characterization of shared supplies, and planning for potential water shortages. (The UWMP addresses CVWD’s municipal water demands only and does not account for agricultural, golf course, or other water users supplied by CVWD.) The CVWD service area encompasses approximately 1,000 square miles and includes all or a portion of the cities of Cathedral City, Indian Wells, Indio, La Quinta, Palm Desert, and Rancho Mirage, and unincorporated Areas of Riverside County (CVWD 2021). From 2010 to 2020, population within the communities of the CVWD service area increased, as shown in **Table 4-1**. As shown in Table 4-1, the CVWD service area experienced population growth of approximately 27 percent, from 212,029 residents in 2010 to 269,952 residents in 2020.

**TABLE 4-1
HISTORICAL POPULATION GROWTH**

	Population 2010	Population 2020	Percent Change
CVWD Service Area Population	212,029	269,952	+27.3%

Source: CVWD 2021

As explained in the 2021 UWMP, population estimates for CVWD’s Service Area were developed using demographic projections from the Southern California Association of Governments (SCAG) Connect SoCal: The 2020-2045 Regional Transportation Plan/Sustainable Community Strategy (SCAG 2024). SCAG routinely forecasts population, housing, and employment estimates as well as developing transportation plans to support growing population and housing needs throughout the region. The projections provided in SCAG’s Connect SoCal plan included estimates of population, households, and employment through 2045, which have been based on local municipalities’ General Plans. The UWMP notes that an important consideration affecting per capita water use in the Coachella Valley is the large seasonal population. These groups may not be included in population statistics since they only reside in

the area for 3-6 months per year, but their irrigation water use is year-round (CVWD 2021). The population estimates included in the UWMP presented below in **Table 4-2** incorporate an approach (approved by the California Department of Water Resources) that accounts for seasonal population fluctuations. These projections predict that the CVWD Service Area will increase in population by approximately 43 percent from 2020 to 2045.

TABLE 4-2
CURRENT AND PROJECTED POPULATION

CVWD Service Area	2020	2025	2030	2035	2040	2045
Permanent	221,791	241,680	261,570	281,460	301,349	321,239
Seasonal	41,261	44,497	47,732	50,914	53,564	56,161
RV Parks	5,900	5,900	5,900	5,900	5,900	5,900
Total	268,952	292,077	315,202	338,274	360,813	383,300

Source: CVWD 2021: UWMP Table 4-4

4.2.4 Projected Water Supplies, Water Demands and Wastewater Flows

Water Supplies

Water supplies within the CVWD service area, which is a subset of the larger Indio Subbasin Plan Area, include a combination of local groundwater, Colorado River water, State Water Project (SWP) exchange water, surface water, and recycled water. These sources serve municipal, rural, and agricultural demands directly and through groundwater recharge. Natural surface water flow in the Coachella Valley occurs as a result of precipitation, precipitation runoff, and stream flow originating from the San Bernardino and San Jacinto Mountains, with lesser amounts from the Santa Rosa Mountains. This watershed runoff is either diverted for direct use, conveyed to the Salton Sea, percolated in the streambeds, or captured in mountain-front debris basins where it recharges the groundwater basin (2022 WMP).

Colorado River water has been a significant water supply source for the Indio Subbasin since the Coachella Canal was completed in 1949. CVWD is the only agency in the Indio Subbasin that receives Colorado River water allocations. Colorado River supplies face a number of challenges to long-term reliability including the extended Colorado River Basin drought and shortage sharing agreements, endangered species and habitat protection, and climate change (2022 WMP).

SWP exchange water has been an important component of the region's water supply portfolio. In 1962 and 1963, Desert Water Agency (DWA) and CVWD, respectively, entered contracts with the State of California that defined a Table A allocation (i.e., the maximum annual amount of water each contractor can receive excluding certain interruptible deliveries). Table A deliveries vary annually based on factors including hydrology, reservoir storage, and environmental requirements for the Sacramento-San Joaquin Delta (Delta). Since 2007, SWP deliveries have averaged only 45 percent of Table A amounts (2022 WMP).

There are currently eight wastewater treatment plants (WWTPs) or water reclamation plants (WRPs) within the Indio Subbasin Plan Area, with a ninth in construction by Mission Springs Water District (MSWD). CVWD and DWA currently deliver recycled water from three WRPs for irrigation of golf courses, large landscaped areas, and various other irrigation uses. Forecasted recycled water deliveries from the three WRPs currently producing recycled water are anticipated to increase from 13,398 AF in 2020 to 20,213 AF in 2045 with additional projects in the planning phases, including the proposed project at WRP 4 (2022 WMP).

Projected Water Demands

Table 4-3 identifies projected municipal water demands within the CVWD service area. **Table 4-4** identifies future water demands within the Indio Subbasin Plan Area, as summarized in the *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan* (2022 WMP), including agricultural, golf course, and other demands from multiple jurisdictions and water supply agencies. These regional demands are met by multiple water agencies and private water users in the region in addition to CVWD. Municipal demands are expected to increase commensurate with population growth, while agricultural demands are expected to decline slightly.

TABLE 4-3
TOTAL PROJECTED MUNICIPAL WATER DEMANDS IN THE CVWD SERVICE AREA (AFY)

Water Demand Type	2025	2030	2035	2040	2045
CVWD Projected Municipal Potable Demands	123,461	130,582	137,629	143,082	148,166
CVWD Projected Recycled Water Demands	13,600	14,400	15,100	15,900	16,800
CVWD Projected Municipal Demands Total	137,061	144,982	152,729	158,981	164,966

Note: Recycled water projections do not include planned projects such as the proposed WRP 4 project.

Source: CVWD, 2021: UWMP Table 4-22

TABLE 4-4
TOTAL PROJECTED WATER DEMANDS IN INDIO SUBBASIN PLAN AREA (AFY)

Water Demand Type	2025	2030	2035	2040	2045
Municipal	192,098	204,163	216,074	225,997	235,148
Agricultural	287,092	284,693	283,045	281,644	280,243
Golf	106,075	107,625	107,625	107,625	107,625
Other	21,593	21,593	21,593	21,593	21,593
Plan Area Total	606,858	617,299	628,337	636,859	644,610

SOURCE: 2022 WMP; Table 5-35, page 5-46

Projected Wastewater Flows

As municipal water demands increase in the future within the CVWD service area, wastewater flows are expected to increase as well. **Table 4-5** summarizes wastewater flow projections included in the Sanitary

Master Plan Update within CVWD service area and in the WRP 4 service area. As shown in the table, the WRP 4 service area is anticipated to experience higher growth than the rest of the service area. Since the Sanitary Master Plan was published in 2020 (CVWD, 2020a), growth flows in the WRP 4 service area have not increased as quickly as projected and will likely not reach the levels shown in Table 4-5 by 2045. Nonetheless, growth flows are increasing overtime, albeit at a slower rate than previously projected.

TABLE 4-5
ESTIMATE OF FUTURE WASTEWATER FLOWS (ANNUAL AVERAGE MGD)

	2025	2030	2035	2040	2045
WRP 4	7.8	10.1	12.5	14.8	17
Total CVWD Service Area	22.6	26.5	30.7	34.4	38.0

Source: CVWD, 2020a, Table 5

4.2.5 Growth Inducement Potential

Implementation of the WRP 4 Project would not directly induce growth, since 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 of the project would create some short-term construction employment opportunities over the duration of project activities from 2029 to 2045, this demand for workers would be accommodated locally and would not increase the local population significantly.

Similarly, the proposed project would not indirectly induce growth, since the proposed project would not increase wastewater treatment capacity at WRP 4, but instead would construct facilities in phases corresponding to inflows to the facility that improve effluent quality sufficiently to meet recycled water standards. Future inflows to WRP 4 are projected to reach 10 MGD by the year 2030. Although growth has not been as substantial as projected in the Sanitary Master Plan, some growth has occurred and will continue as local jurisdictions including the County and cities within the WRP 4 service area approve new development projects. These jurisdictions within the CVWD service area have adopted General Plans that guide land use and development and have completed CEQA evaluations of the secondary effects of growth. The WRP 4 recycled water treatment capacity would be installed in three phases corresponding to gradual increases in future inflows as a measured response to population growth, designed to avoid inducing growth, but accommodating growth as it occurs.

Furthermore, the proposed project would not remove an obstacle to growth such as water supply or wastewater treatment capacity. The proposed project would not increase the overall treatment capacity at WRP 4. Rather, it would develop recycled water supplies to offset some of the forecasted increases in water demands and declines in imported water supply reliability. The expansion of recycled water production capacity at WRP 4 would increase recycled water supplies for agricultural uses, but would not remove an obstacle to growth, since water supplies for agricultural demands would be met with groundwater or imported water if the proposed project is not implemented. The increase in recycled water supplies would be consistent with the 2022 WMP that includes projects to maintain sustainable water management in the Indio Subbasin. If recycled water is not developed, the local demands will be met with other supplies such as groundwater. The WRP 4 project would result in reduced extraction of local

groundwater supplies and reduced reliance on imported Colorado River water, which alleviates an impact of growth pressure on the resources. As a result, the proposed project would not directly or indirectly induce growth.

4.3 References

Southern California Association of Governments (SCAG), 2024. 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy PEIR. <https://scag.ca.gov/peir>. Accessed June 2024.

CVWD, 2016. 2015 Urban Water Management Plan (UWMP). Prepared by MWH Constructors, Inc. July 2016.

CVWD, 2020a; Sanitary Master Plan Update, Appendix C Volume 2, Technical Memorandum No. 1 Tables, 2020

CVWD, 2021. 2020 Coachella Valley Regional Urban Water Management Plan (UWMP). Prepared by Water Systems Consulting, Inc. June 2021.

Indio Subbasin Groundwater Sustainability Agencies (ISGSA). 2021. *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan* (2022 WMP).

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CHAPTER 5

Alternatives Analysis

5.1 CEQA Requirements for Alternatives Analysis

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) describe and evaluate a reasonable range of feasible alternatives to a project, or to the location of a project, that would attain most of the project objectives and avoid or substantially lessen significant project impacts. The alternatives analysis must also 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 project were not approved (CEQA Guidelines Section 15126(d)). The environmental impacts associated with the alternatives are evaluated relative to the impacts associated with a project.

CEQA Guidelines (§15126.6) set forth the following criteria for alternatives:

- **Identifying Alternatives.** The range of alternatives is limited to those that would avoid or substantially lessen any of the significant 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 the 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’ shall also be evaluated along with its impact.
- **Range of Alternatives.** An EIR need not consider every conceivable alternative but must consider a reasonable range of alternatives 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.
- **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 of each alternative and significant environmental effects of each alternative to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed but, in less detail than the significant effects of the project.

5.2 Project Objectives

The Water Reclamation Plant No. 4 (WRP 4) Non-Potable Water Improvements Project (proposed project) is a component of Coachella Valley Water District's (CVWD) *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan* (Indio Subbasin GSAs 2021) referred to here as the 2022 WMP. The 2022 WMP outlines plans for maintaining long-term water supply reliability in the Coachella Valley while maintaining compliance with the Sustainable Groundwater Management Act (SGMA) and meeting increased water demands stemming from anticipated growth identified by the Southern California Association of Governments (SCAG) and local general plans (SCAG 2020; Indio Subbasin GSAs 2021). As the reliability of Colorado River and State Water Project deliveries decline due to changing climatic and hydrologic conditions (USBR 2021; DWR 2023a), efforts to develop drought-resilient local supplies become increasingly critical. By increasing the volume of recycled water in its portfolio, the region can reduce reliance on imported water sources to maintain stable groundwater levels and enhance resilience during prolonged droughts. Identified in the 2022 WMP as Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery (Indio Subbasin GSAs 2021), the proposed project is part of a broader, programmatic suite of projects and actions designed to both meet future water demands and achieve SGMA's sustainability goals, and supports California's objectives for expanding recycled water use (DWR 2023b).

As noted in Section 2.3 of the Draft EIR, the objectives of the proposed project are to:

- Be consistent with the *2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan*, which has the following objectives: meet current and future water demands, avoid chronic groundwater overdraft, and reduce vulnerability to climate change and drought impacts while complying with the requirements of SGMA;
- Support Lower Colorado River Basin State efforts to provide Colorado River water conservation in a timely manner to address the Colorado River water supply shortages;
- Provide an alternate water supply for local irrigation that is not local groundwater or imported Colorado River water;
- Upgrade recycled water treatment at WRP 4 and conveyance facilities to serve agricultural users as well as other landscape irrigation customers in the CVWD service area;
- Optimize use of recycled water for beneficial uses in an environmentally sound and cost efficient manner;
- Reduce pollutant discharges to receiving waters.

5.3 Key Impacts of the Proposed Project

Chapter 3 of this Draft EIR identifies potential impacts associated with the proposed project for each environmental resource carried through for analysis from Appendix G of the CEQA Guidelines. A summary of the significance of impacts identified for each environmental resource analyzed is presented below in **Table 5-1**. The proposed project would not result in any significant and unavoidable impacts.

**TABLE 5-1
SUMMARY OF PROJECT IMPACT ANALYSIS**

Environmental Resource	Significance Determination
Aesthetics	LTS
Agricultural Resources	LTS
Air Quality and Greenhouse Gases	LTSM
Biological Resources	LTSM
Cultural Resources	LTSM
Energy	LTS
Geology and Soils	LTS
Hazards and Hazardous Materials	LTSM
Hydrology and Water Quality	LTS
Land Use	LTS
Noise	LTSM
Transportation	LTSM
Tribal Cultural Resources	LTSM
Notes:	
LTS = Less than Significant	
LTSM = Less than Significant with Mitigation	
Source: ESA 2025	

5.4 Alternatives to the Project

A description of the proposed project and each Alternative is presented below. **Table 5-2** summarizes estimated future recycled water production and discharges to the Coachella Valley Stormwater Channel (CVSC) for the proposed project and each of the project alternatives, which are based on the proposed treatment capacity for each Alternative.

**TABLE 5-2
ESTIMATE OF WRP 4 RECYCLED WATER IN MGD AND DISCHARGES TO CVSC FOR PROJECT
AND PROJECT ALTERNATIVES**

	Recycled Water (MGD)	Discharge to CVSC (MGD)
Proposed Project (at Phase 3)	5.7 + growth flows*	0
Project Alternatives		
No Project Alternative	0	5.7
Phase 1 Only Alternative	1	4.7
Phase 1 + 2 Only Alternative	2.5	3.2
Growth Flows Since 2016 Alternative	1 + growth flows*	4.7
Future Growth Flows Only Alternative	Growth flows*	5.7

* Note: Growth flows refer to potential future wastewater influent to WRP 4 that may be generated by new development, contributing to the available supply for recycled water, which would not be subject to a Wastewater Change Petition.

5.4.1 Proposed Project

The proposed project would design and construct tertiary treatment facility and distribution pipelines to deliver up to a 10 million gallons per day (MGD) of recycled water to existing agricultural and other large irrigation customers in the WRP 4 service area. CVWD has developed three phases of the proposed project to achieve 10 MGD production and distribution. Phase 1 would produce 1 MGD while maintaining 4.7 MGD discharge to the CVSC. Phase 2 would produce an additional 1.5 MGD and result in 3.2 MGD discharge to the CVSC. Phase 3 would produce an additional 3.2 MGD plus growth flows over time and would result in 0 MGD discharge to the CVSC at project buildout. The project is described in detail in Chapter 2 of this Draft EIR.

5.4.2 No Project Alternative

According to Section §15126.6(e) of the CEQA Guidelines, discussion of the No Project Alternative must include a description of existing conditions and reasonably foreseeable future conditions that would exist if the project were not approved. Under the No Project Alternative, CVWD would not implement improvements to produce recycled water at the WRP 4 facility. None of the treatment upgrades, pipelines or storage facilities would be built or operated. Treated effluent from WRP 4 would continue to be discharged to the CVSC at the rate of 5.7 MGD. Agricultural and landscape irrigation customers would continue to rely on groundwater and imported Colorado River water instead of recycled water. Under the No Project Alternative, CVWD would not be able to maximize the use of recycled water as planned in the 2022 WMP since Project and Management Action 18 would not be implemented.

5.4.3 Phase 1 Only Alternative

Under the Phase 1 Only Alternative, CVWD would implement only Phase 1 of the proposed project, recycling 1 MGD of existing flows. This alternative would include construction and operation of infrastructure at WRP 4 capable of treating and distributing 1 MGD recycled. CVWD would repurpose an existing irrigation pipeline to deliver a blend of recycled water and canal water¹ to three local customers located south of WRP 4. Approximately 4.7 MGD (annual average) would continue to be discharged to the CVSC (5.7 MGD current discharge minus 1 MGD).

5.4.4 Phase 1 + 2 Only Alternative

Under the Phase 1 + 2 Only Alternative, CVWD would implement Phases 1 and 2 of the proposed project, initially recycling 1 MGD as part of Phase 1 and then an additional 1.5 MGD for Phase 2, for a total of 2.5 MGD of existing flows. This alternative would phase in construction and operation of infrastructure at WRP 4 capable of distributing the 2.5 MGD recycled water, approximately 2,800 acre-feet per year (AFY). Initially with Phase 1, CVWD would repurpose an existing irrigation pipeline to deliver a blend of recycled water and canal water² to three local customers located south of WRP 4. New distribution pipelines would be constructed to deliver 1.5 MGD recycled water for Phase 2.

¹ Canal water refers to imported Colorado River water delivered to the Coachella Valley via the Coachella Canal, a 122-mile aqueduct connecting to the All American Canal.

² Canal water refers to imported Colorado River water delivered to the Coachella Valley via the Coachella Canal, a 122-mile aqueduct connecting to the All American Canal.

Approximately 3.2 MGD (annual average) would continue to be discharged to the CVSC (5.7 MGD current discharge minus 2.5 MGD).

5.4.5 Growth Flows Since 2016 Alternative

CVWD first submitted the petition to the State Water Resources Control Board (SWRCB) for a change in the place of discharge and use of wastewater from WRP 4 in 2016. At that time, discharges from WRP 4 averaged 4.7 MGD (CVWD 2020; Table 5). Under the Growth Flows Since 2016 Alternative, CVWD would build new treatment facilities to recycle flows in excess of the 4.7 MGD annual average discharged in 2016. The Growth Flows Since 2016 Alternative would recycle 1 MGD (5.7 MGD current discharge minus 4.7 MGD 2016 annual average) and would also treat future growth flows over time. Initially, CVWD would build 1 MGD tertiary treatment capacity and repurpose an existing irrigation pipeline to deliver a blend of recycled water and canal water to three local customers located south of WRP 4. The tertiary treatment capacity and distribution system would be expanded over time to recycle and distribute future growth flows. Approximately 4.7 MGD (annual average) would continue to be discharged to the CVSC.

5.4.6 Future Growth Flows Only Alternative

Under the Future Growth Flows Only Alternative, CVWD would build new treatment facilities to recycle future flows in excess of the 5.7 MGD annual average currently being discharged. The Growth Flows Only Alternative assumes that all future growth flows above 5.7 MGD would be recycled. CVWD would construct water conveyance infrastructure to convey treated water similar to Phase 1 of the proposed project. The tertiary treatment capacity and distribution system would be expanded over time to recycle and distribute additional growth flows. Approximately 5.7 MGD (annual average) would continue to be discharged to the CVSC.

5.5 Ability to Meet Project Objectives

5.5.1 Proposed Project

As noted in **Table 5-3** below, the proposed project would meet all project objectives.

5.5.2 No Project Alternative

As noted in Table 5-3, the No Project Alternative would meet none of the project objectives. Implementation of the No Project Alternative would not provide any of the benefits of an increased water supply. Irrigation demands in the local area would continue to be met entirely with groundwater or Colorado River supplies. The No Project Alternative would not be consistent with the 2022 WMP to maintain groundwater sustainability and water supply resiliency since Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery would not be implemented. Nor would the No Project Alternative support the Lower Basin efforts to increase conservation of Colorado River water. The No Project Alternative would not provide an alternative water supply or upgrade treatment to serve agriculture customers in the area compared to the proposed project, nor would it optimize recycled water for beneficial uses or reduce pollutant loading in the CVSC.

TABLE 5-3
SUMMARY OF PROJECT AND PROJECT ALTERNATIVES' ABILITY TO MEET PROJECT OBJECTIVES

Project Objective	Proposed Project	No Project Alternative	Phase 1 Only Alternative	Phase 1 + 2 Only Alternative	Growth Flows Since 2016 Alternative	Future Growth Flows Only Alternative
Be consistent with the <i>2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan</i> , which has the following objectives: meet current and future water demands, avoid chronic groundwater overdraft, and reduce vulnerability to climate change and drought impacts while complying with the requirements of SGMA	Yes	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree
Support Lower Colorado River Basin State efforts to provide Colorado River water conservation in a timely manner to address the Colorado River water supply shortages	Yes	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree	No
Provide an alternate water supply for local irrigation that is not local groundwater or imported Colorado River water	Yes	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree and not in a timely manner
Upgrade recycled water treatment at WRP 4 and conveyance facilities to serve agricultural users as well as other landscape irrigation customers in the CVWD service area	Yes	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree and not in a timely manner
Optimize use of recycled water for beneficial uses in an environmentally sound and cost efficient manner	Yes	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree and not in a timely manner
Reduce pollutant discharges to receiving waters	Yes	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree	No

5.5.3 Phase 1 Only Alternative

As noted in Table 5-3, the Phase 1 Only Alternative would meet the project objectives, but to a lesser degree than the proposed project. The Phase 1 Only Alternative would be consistent with the 2022 WMP in that some water recycling would occur that would reduce demands from the local groundwater table, but at only about 20 percent of the proposed project's recycled water production. Nonetheless, the Alternative would support groundwater sustainability and water supply resiliency since Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery would be implemented at a reduced capacity. The Phase 1 Only Alternative would support the Lower Basin efforts to increase conservation of Colorado River water and would produce an alternative water supply to serve agriculture customers in the area, but to a lesser degree than the proposed project. The Phase 1 Only Alternative would produce recycled water for beneficial uses, but would not optimize the resource compared to the proposed project (see volume comparison in Table 5-2). Finally, the Phase 1 Only Alternative would reduce pollutant loading in the CVSC, but to a lesser degree than the proposed project.

5.5.4 Phase 1 + 2 Only Alternative

As noted in Table 5-3, the Phase 1 + 2 Only Alternative would meet the project objectives, but to a lesser degree than the proposed project. The Phase 1 + 2 Only Alternative would be consistent with the 2022 WMP in that some water recycling would occur that would reduce demands from the local groundwater table, but at only about 45 percent of the proposed project's recycled water production. Nonetheless, the Alternative would support groundwater sustainability and water supply resiliency since Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery would be implemented at a reduced capacity. The Phase 1 + 2 Only Alternative would support the Lower Basin efforts to increase conservation of Colorado River water and would produce an alternative water supply to serve agriculture customers in the area, but to a lesser degree than the proposed project. The Phase 1 + 2 Only Alternative would produce recycled water for beneficial uses, but would not optimize the resource compared to the proposed project (see volume comparison in Table 5-2). Finally, the Phase 1 + 2 Only Alternative would reduce pollutant loading in the CVSC, but to a lesser degree than the proposed project.

5.5.5 Growth Flows Since 2016 Alternative

As noted in Table 5-3, the Growth Flows Since 2016 Alternative would meet some of project objectives, but to a lesser degree than the proposed project. The Growth Flows Since 2016 Alternative would be consistent with the 2022 WMP in that some water recycling would occur that would reduce demands from the local groundwater table, but less than proposed project. Nonetheless, the Alternative would support groundwater sustainability and water supply resiliency since Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery would be implemented at a reduced capacity. The Growth Flows Since 2016 Alternative would support the Lower Basin efforts to increase conservation of Colorado River water and would produce an alternative water supply to serve agriculture users in the area, but to a lesser degree than the proposed project. The Growth Flows Since 2016 Alternative would produce recycled water, but would not optimize the resource compared to the proposed project (see volume comparison in Table 5-2). Finally, the Growth Flows Since 2016 Alternative would reduce pollutant loading in the CVSC, but to a lesser degree than the proposed project.

5.5.6 Future Growth Flows Only Alternative

As noted in Table 5-3, the Future Growth Flows Only Alternative would meet some of project objectives, but to a lesser degree than the proposed project. The Future Growth Flows Only Alternative would be consistent with the 2022 WMP in that some water recycling would occur that would reduce demands from the local groundwater table, but less than the proposed project. Nonetheless, the Alternative would support groundwater sustainability and water supply resiliency since Project and Management Action 18: WRP 4 Tertiary Expansion & Delivery would be implemented at a reduced capacity. The Future Growth Flows Only Alternative would not support the Lower Basin efforts to increase conservation of Colorado River water in a timely manner. While the Future Growth Flows Only Alternative could result in the ability to produce an alternative water supply to serve agriculture users in the area, the amount and timing is uncertain. The Future Growth Flows Only Alternative could produce recycled water in the future if there is additional growth in the service area of WRP 4, and would not optimize available resources compared to the proposed project (see volume comparison in Table 5-2); nor would it reduce pollutant loading in the CVSC.

5.6 Alternatives Considered but Rejected

5.6.1 Conservation Only Alternative

Under the Conservation Only Alternative, similar to the Future Growth Flows Only Alternative, CVWD would not immediately implement improvements to produce recycled water at the WRP 4 facility using current discharges to the CVSC.

CVWD is committed to addressing groundwater overdraft in the Coachella Valley while ensuring reliable and sustainable water supplies for its diverse user base. Historically, the region relied heavily on groundwater, resulting in significant overdraft conditions. In response, CVWD has implemented strategies to provide alternative water supplies, including recycled water, to reduce reliance on groundwater pumping.

In evaluating potential alternatives to the proposed recycled water project, CVWD considered a conservation-focused alternative. However, after thorough analysis, this alternative was dismissed from detailed consideration in the Draft EIR due to its inability to achieve the project's objectives and its potential unintended consequences. Outlined below is a rationale for dismissing the conservation alternative, with a specific focus on the agricultural, golf, and municipal sectors, which are the largest water user sectors in the Coachella Valley.

Agriculture and golf course irrigation are major components of water use in the Coachella Valley, with both sectors holding overlying groundwater rights under California's groundwater rights structure. These rights grant users the legal ability to pump groundwater for reasonable and beneficial uses, particularly in the absence of adequate surface or alternative water supplies. CVWD's strategy of supplementing groundwater with alternative water supplies including recycled water has been critical in reducing groundwater pumping in the region. Reducing these alternative supplies as part of a conservation-focused alternative would likely result in agricultural and golf users reverting to increased groundwater pumping. This shift would undermine decades of progress made in stabilizing the aquifer and preventing the reemergence of overdraft conditions.

CVWD already promotes conservation among agricultural and golf irrigators through various voluntary programs, as outlined in the 2022 WMP. These programs build on historical efforts to reduce water use, like the 2004 Extraordinary Water Conservation Program (ECP) which promoted the adoption of efficient irrigation practices and technologies for agriculture to meet the requirements of the 2003 Colorado River Water Delivery Agreement with California's contractors. More recent conservation programs provide financial incentives to remove turf from golf courses and technical support to encourage water-use efficiency, such as precision irrigation systems, soil moisture monitoring, and other best management practices (BMPs) across all water use sectors. While these programs have helped to successfully reduce water usage, their voluntary nature limits their scalability and enforceability. As such, they do not provide a sound or implementable basis for meeting the recycled water project's objectives of ensuring a sustainable and predictable water supply for the region.

Incentivizing agricultural reductions in water use, through conservation or land fallowing, also raises significant environmental and regional concerns. Fallowing agricultural land would reduce irrigation return flows that currently contribute to inflows into the Salton Sea. Such reductions could exacerbate the Salton Sea's ongoing environmental challenges, including habitat loss, increased dust emissions from exposed lakebed, and impacts on air quality and public health. There is wide acknowledgment that such measures can negatively impact the Salton Sea by diminishing the agricultural return flows that sustain it.

While CVWD has greater control over urban conservation, there are constraints to using additional conservation from this sector as a feasible alternative for achieving the project's objectives. Urban water demand within the CVWD reached its peak in fiscal year (FY) 2006-07, with a total usage of approximately 132,000 acre-feet (CVWD 2007). Since then, through comprehensive conservation efforts, tiered water rates, and the implementation of other efficient water management practices, there has been a significant reduction in urban water demand. By FY 2023/24, urban water use had decreased to about 85,000 acre-feet, reflecting a substantial decline over the 17-year period despite the addition of approximately 10,000 active accounts in CVWD's service area (CVWD 2007, 2024). This reduction underscores the effectiveness of CVWD's initiatives aimed at promoting water conservation and ensuring sustainable water resource management in the Coachella Valley. As a result, CVWD bested the targets established by the Water Conservation Act of 2009 (SB X7-7) of reducing urban water use by 20 percent by the year 2020, reducing gallons per capita per day by 45 percent (CVWD 2021, Chapter 4).

Following the historic drought of 2012-2016, the State of California enacted legislation aimed at institutionalizing water conservation practices across all sectors. The framework, known as Making Conservation a Way of Life, includes long-term water use efficiency standards and improved drought resilience measures for urban water suppliers. Under this framework, CVWD and other urban water suppliers must meet specific water efficiency targets based on residential per capita use, outdoor irrigation efficiency, and system water loss standards. While these regulations are expected to result in reductions in urban water demand in California over the coming decades, not all urban suppliers will see significant reductions from meeting their water use targets. For example, the estimates for CVWD provided by the SWRCB indicate that initially CVWD will meet its water use objective requiring no reduction in water use and will only need to reduce current municipal use by approximately 12 percent to meet the total reductions required by the 2040 standards (SWRCB 2024). While the 2022 WMP, did not fully consider the impacts of Making Conservation a Way of Life because the regulation had not been finalized, it did

incorporate assumptions about water savings from increased efficiency and conservation programs (Indio Subbasin GSAs 2021).

In addition to Making Conservation a Way of Life, California has recently enacted new legislation banning the use of potable water for irrigating non-functional turf on commercial, industrial, and institutional (CII) settings. Assembly Bill (AB) 1572 passed the State Senate on September 12, 2023 and takes effect in stages between 2027 and 2031. This legislation defines non-functional turf as areas of grass that are purely ornamental (e.g., turf located on road medians and outside businesses) and serve no recreational, community, or other functional purpose (e.g., sports fields, parks, picnic areas, and cemeteries). This legislation does not address any residential turf and exempts areas irrigated with recycled water. Since many large CII irrigators in the Coachella Valley use private wells or alternative sources like recycled water already provided to reduce groundwater pumping, AB 1572 will not have the same impact within CVWD's service area that is expected in regions where irrigation demands are met primarily or exclusively through a municipal system.

While conservation measures are an integral part of CVWD's long-term water management strategy, they are insufficient and speculative as an alternative to the proposed project. Conservation efforts in the agricultural, golf, and urban sectors have already achieved significant reductions in water use over the past decades. However, these measures are primarily voluntary in nature, and lack the reliability, scalability, and enforceability to provide the certainty or volume of water savings needed to meet demand growth presented in the 2022 WMP. Furthermore, a conservation-focused alternative would fail to address key project objectives, such as ensuring resilience in the face of reduced reliability of imported water supplies with climate change. For these reasons, the conservation alternative does not present a feasible or implementable solution and is dismissed from detailed consideration in this Draft EIR.

5.7 Comparison of Environmental Impacts

Table 5-4 provides a summary comparison of potential impacts for each alternative compared with the proposed project.

TABLE 5-4
SUMMARY OF ALTERNATIVES ANALYSIS RELATIVE TO THE PROPOSED PROJECT

Proposed Project	No Project Alternative	Phase 1 Only Alternative	Phase 1 + 2 Only Alternative	Growth Flows Since 2016 Alternative	Future Growth Flows Only Alternative
Aesthetics					
LTS	(lesser) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and would therefore have no potential to impact scenic vistas, scenic resources, visual character, or light and glare in the proposed project area. The No Project Alternative would result in fewer aesthetic impacts when compared to the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed similar to the proposed project. Impacts to aesthetics would be similar to the proposed project at the WRP No. 4 site, and along the pipeline routes during construction. The Phase 1 Only Alternative would result in aesthetic impacts similar to the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed similar to the proposed project. Impacts to aesthetics would be similar to the proposed project at the WRP No. 4 site, and along the pipeline routes during construction. The Phase 1 + 2 Only Alternative would result in aesthetic impacts similar to the proposed project.	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Impacts to aesthetics would be similar to the proposed project at the WRP No. 4 site, and along the pipeline routes during construction. The Growth Flows Since 2016 Alternative would result in aesthetic impacts similar to the proposed project.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Impacts to aesthetics would be similar to the proposed project at the WRP No. 4 site, and along the pipeline routes during construction. The Future Growth Flows Only Alternative would result in aesthetic impacts similar to the proposed project.
Agricultural Resources					
LTS	(greater) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and would not provide an additional water source to agricultural lands in the vicinity of WRP 4. As a result, agricultural practices would continue to rely on stressed groundwater and imported water supplies, and the potential for fallowing of agricultural lands would increase. The No Project Alternative would result in greater impacts to agricultural land uses and practices when compared to the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project, with capability of distributing less recycled water than the proposed project. Agricultural impacts would be similar to the proposed project related to conversion of agricultural land to non-agricultural use. The Phase 1 Alternative would not conflict with existing zoning for agricultural use, or conflict with Williamson contracts. The Phase 1 Only Alternative would produce less recycled water for agriculture uses, resulting in less of a benefit.	(similar) Under the Phase 1 + 2 Only Alternative, Phase 1 + 2 would be constructed and operated similar to the proposed project, with capability of distributing less recycled water (up to 2.5 MGD) than the proposed project. Agricultural impacts would be similar to the proposed project related to conversion of agricultural land to non-agricultural use. The Phase 1 + 2 Alternative would not conflict with existing zoning for agricultural use, or conflict with Williamson contracts. The Phase 1 Only Alternative would produce less recycled water for agriculture uses, resulting in less of a benefit.	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate future flows in excess of the 4.7 MGD (annual average). Agricultural impacts would be similar to the proposed project related to conversion of agricultural land to non-agricultural use. The Phase Growth Flows Since 2016 Alternative would not conflict with existing zoning for agricultural use, or conflict with Williamson contracts. The Growth Flows Since 2016 Alternative would produce less recycled water for agriculture uses, resulting in less of a benefit.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Agricultural impacts would be similar to the proposed project related to conversion of agricultural land to non-agricultural use. The Future Growth Flows Only Alternative would not conflict with existing zoning for agricultural use, or conflict with Williamson contracts. The Future Growth Flows Only Alternative would produce less recycled water for agriculture uses, resulting in less of a benefit.

Proposed Project	No Project Alternative	Phase 1 Only Alternative	Phase 1 + 2 Only Alternative	Growth Flows Since 2016 Alternative	Future Growth Flows Only Alternative
Air Quality and Greenhouse Gases					
LTSM	(lesser) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and therefore would not generate emissions above baseline conditions that could impact air quality. All potential impacts associated with construction would be avoided, and operational emissions would not increase. Similarly, the No Project Alternative would not increase greenhouse gas emissions compared with existing conditions because no new treatment systems or pump stations would be constructed. As such, the No Project Alternative would result in fewer greenhouse gas emissions impacts when compared to the proposed project.	(lesser) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Air emissions including greenhouse gas emissions associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project. Since fewer acres of lakebed would be exposed, the potential for increased dust emissions would be less than the proposed project.	(lesser) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Air emissions including greenhouse gas emissions associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project. Since fewer acres of lakebed would be exposed, the potential for increased dust emissions would be less than the proposed project.	(lesser) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Since treatment and conveyance systems would be constructed and operated but at less capacity, air emissions including greenhouse gas emissions associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project. Since fewer acres of lakebed would be exposed, the potential for increased dust emissions would be less than the proposed project.	(lesser) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Since fewer treatment and conveyance systems would be constructed and operated but with less capacity, air emissions including greenhouse gas emissions associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project. Since no additional lakebed would be exposed, the potential for increased dust emissions would be avoided.

Proposed Project	No Project Alternative	Phase 1 Only Alternative	Phase 1 + 2 Only Alternative	Growth Flows Since 2016 Alternative	Future Growth Flows Only Alternative
Biological Resources					
LTSM	(lesser) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented, therefore all potential impacts associated with construction would be avoided and would not affect existing conditions within the CVSC or Salton Sea. Flows within the CVSC to the Salton Sea would be maintained at existing levels (approximately 5.7 MGD). As a result, the minor effects to water depth and wetted area in the CVSC and the Salton Sea would be avoided. The No Project Alternative would result in fewer potential impacts to biological resources compared with the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Impacts to biological resources during construction would be similar to the proposed project. Discharges to the CVSC would be approximately 4.7 MGD. The minor effects to water depth and wetted area in the CVSC and the Salton Sea would be reduced compared to the proposed project. However, the proposed project would not result in any significant impact to biological resources. Mitigation measures would be required similar to the proposed project. As a result, impacts would be similar to the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Impacts to biological resources during construction would be similar to the proposed project. Discharges to the CVSC would be approximately 3.2 MGD. The minor effects to water depth and wetted area in the CVSC and the Salton Sea would be reduced compared to the proposed project. However, the proposed project would not result in any significant impact to biological resources. Mitigation measures would be required similar to the proposed project. As a result, impacts would be similar to the proposed project..	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate future flows in excess of the 4.7 MGD (annual average). Impacts to biological resources from construction would be slightly less than the proposed project. Discharges to the CVSC would be maintained at 2016 levels (approximately 4.7 MGD). The minor effects to water depth and wetted area in the CVSC and the Salton Sea would be reduced compared to the proposed project. However, the proposed project would not result in any significant impact to biological resources. Mitigation measures for construction activities would be required similar to the proposed project. As a result, impacts would be similar to the proposed project.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Impacts to biological resources from construction would be similar to the proposed project. Discharges to the CVSC would be maintained at existing levels (approximately 5.7 MGD). The minor effects to water depth and wetted area in the CVSC and the Salton Sea would be avoided. However, the proposed project would not result in any significant impact to biological resources. Mitigation measures for construction activities would be required similar to the proposed project. As a result, impacts would be similar to the proposed project.

Proposed Project	No Project Alternative	Phase 1 Only Alternative	Phase 1 + 2 Only Alternative	Growth Flows Since 2016 Alternative	Future Growth Flows Only Alternative
Cultural Resources					
LTSM	(lesser) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented, therefore all potential impacts associated with construction would be avoided and would not result in ground disturbance that could disrupt or affect archaeological resources, historic resources, or human remains. As a result, the No Project Alternative would result in fewer potential impacts to cultural resources than the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Impacts to cultural resources associated with construction would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Impacts to cultural resources associated with construction would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Since treatment and conveyance systems would be constructed and operated similar to the proposed project, impacts to cultural resources associated with construction would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Since treatment and conveyance systems would be constructed and operated similar to the proposed project, impacts to cultural resources associated with construction would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.
Energy					
LTS	(similar) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and therefore would not consume energy to treat and convey recycled water. However, to offset the lack of recycled water, additional energy would be needed to pump groundwater. Use of energy in itself is not an environmental impact. Since the proposed project would not waste energy or be inconsistent with area plans, the No Project Alternative would be similar to the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Energy use associated with construction and operations would be less than the proposed project. Use of energy in itself is not an environmental impact. Since the proposed project would not waste energy or be inconsistent with area plans, the Phase 1 Only Alternative would be similar to the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Energy use associated with construction and operations would be less than the proposed project. Use of energy in itself is not an environmental impact. Since the proposed project would not waste energy or be inconsistent with area plans, the Phase 1 + 2 Only Alternative would be similar to the proposed project.	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Since fewer treatment and conveyance systems would be constructed and operated, energy use associated with construction and operations would be less than the proposed project. Use of energy in itself is not an environmental impact. Since the proposed project would not waste energy or be inconsistent with area plans, the Growth Flows Since 2016 Alternative would be similar to the proposed project.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Since fewer treatment and conveyance systems would be constructed and operated, energy use associated with construction and operations would be less than the proposed project. Use of energy in itself is not an environmental impact. Since the proposed project would not waste energy or be inconsistent with area plans, the Future Growth Flows Only Alternative would be similar to the proposed project.

Proposed Project	No Project Alternative	Phase 1 Only Alternative	Phase 1 + 2 Only Alternative	Growth Flows Since 2016 Alternative	Future Growth Flows Only Alternative
Geology and Soils					
LTS	(lesser) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and therefore would not result in any geologic or soil-related impacts, ground disturbing activities, or potential to uncover paleontological resources. The No Project Alternative would result in fewer impacts to geology and soils when compared to the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Impacts to geological, soils, and paleontological resources associated with construction would be similar to the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Impacts to geological, soils, and paleontological resources associated with construction would be similar to the proposed project.	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Although fewer treatment and conveyance systems would be constructed and operated, impacts to geological, soils, and paleontological resources associated with construction would be similar to the proposed project.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Although fewer treatment and conveyance systems would be constructed and operated, impacts to geological, soils, and paleontological resources associated with construction would be similar to the proposed project.
Hazards and Hazardous Materials					
LTSM	(lesser) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and therefore would not result in any hazardous materials-related impacts. The No Project Alternative would result in fewer potential impacts to hazards and hazardous materials when compared to the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Impacts to hazards and hazardous materials resources associated with construction and operation would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Impacts to hazards and hazardous materials resources associated with construction and operation would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Since treatment and conveyance systems would be constructed and operated with only slightly less capacity, impacts to hazards and hazardous materials associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Since treatment and conveyance systems would be constructed and operated with only slightly less capacity, impacts to hazards and hazardous materials associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.

Proposed Project	No Project Alternative	Phase 1 Only Alternative	Phase 1 + 2 Only Alternative	Growth Flows Since 2016 Alternative	Future Growth Flows Only Alternative
Hydrology and Water Quality					
LTS	(greater) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and therefore would not result in any construction-related impacts to water quality. However, No Project Alternative would not reduce pollutant loads to the CVSC and would therefore result in greater water quality impacts when compared to the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Hydrology impacts would be similar to the proposed project related to groundwater recharge, drainage patterns, and flood hazards. The Phase 1 Only Alternative would result in 4.7 MGD discharge to the CVSC, plus any additional future growth flows. The Phase 1 Alternative would benefit hydrology and water quality through reduction of pollutant loads to the CVSC, though less than the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Hydrology impacts would be similar to the proposed project related to groundwater recharge, drainage patterns, and flood hazards. The Phase 1 + 2 Alternative would result in 3.2 MGD discharge to the CVSC, plus any additional future growth flows. The Phase 1 + 2 Alternative would benefit hydrology and water quality through reduction of pollutant loads to the CVSC, though less than the proposed project.	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Since treatment and conveyance systems would be constructed and operated with only slightly less capacity, impacts to hydrology associated with construction would be similar to the proposed project. The Growth Flows Since 2016 Alternative would result in 4.7 MGD discharge to the CVSC, and would benefit hydrology and water quality through reduction of pollutant loads to the CVSC, though less than the proposed project.	(greater) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Treatment and conveyance systems would be constructed similar to the proposed project. The Future Growth Flows Only Alternative would result in 5.7 MGD discharge to the CVSC and would not benefit hydrology and water quality through reduction of pollutant loads to the CVSC compared with the proposed project.
Land Use					
LTS	(similar) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and therefore would not result in any land use-related impacts. Since the No Project Alternative would also not affect land uses, impacts would be similar to the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Impacts to land use would be similar to the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Impacts to land use would be similar to the proposed project.	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Impacts to land use would be similar to the proposed project.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Impacts to land use would be similar to the proposed project.

Proposed Project	No Project Alternative	Phase 1 Only Alternative	Phase 1 + 2 Only Alternative	Growth Flows Since 2016 Alternative	Future Growth Flows Only Alternative
Noise					
LTSM	(lesser) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and therefore would not result in any noise-related impacts. As a result, the No Project Alternative would result in fewer impacts compared to the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Noise impacts associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Noise impacts associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Since treatment and conveyance systems would be constructed and operated but for a slightly lesser capacity, noise impacts associated with construction and operations would be similar to proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Since treatment and conveyance systems would be constructed and operated but for a slightly lesser capacity, noise impacts associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.
Transportation					
LTSM	(lesser) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and therefore would not result in any transportation-related impacts. As a result, the No Project Alternative would result in fewer impacts when compared to the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Impacts to traffic and transportation associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Impacts to traffic and transportation associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Growth Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Since treatment and conveyance systems would be constructed and operated for slightly lesser capacity, impacts to traffic and transportation associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Since treatment and conveyance systems would be constructed and operated for slightly lesser capacity, impacts to traffic and transportation associated with construction and operations would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.

Proposed Project	No Project Alternative	Phase 1 Only Alternative	Phase 1 + 2 Only Alternative	Growth Flows Since 2016 Alternative	Future Growth Flows Only Alternative
Tribal Cultural Resources					
LTSM	(lesser) Under the No Project Alternative, construction and operation of the proposed project facilities would not be implemented and therefore would not result in ground disturbance that could disrupt or affect tribal cultural resources. As a result, the No Project Alternative would result in fewer potential impacts than the proposed project.	(similar) Under the Phase 1 Only Alternative, Phase 1 would be constructed and operated similar to the proposed project. Impacts to tribal cultural resources would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Phase 1 + 2 Only Alternative, Phases 1 and 2 would be constructed and operated similar to the proposed project. Impacts to tribal cultural resources would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Growth Flows Since 2016 Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 4.7 MGD (annual average). Impacts to tribal cultural resources would be similar to the proposed project. Mitigation measures would be required similar to the proposed project.	(similar) Under the Future Growth Flows Only Alternative, treatment and conveyance systems would be constructed to accommodate flows in excess of 5.7 MGD (annual average). Impacts to tribal cultural resources would be less than the proposed project. Mitigation measures would be similar to the proposed project.

Source: ESA 2025.

Notes:

LTS = less than significant

LTSM = less than significant with mitigation

5.8 Environmentally Superior Alternative

The No Project Alternative would avoid some of the environmental impacts of the proposed project but would result in greater impacts to some resources such as hydrology (groundwater resources and water quality) and agricultural resources and would not meet any of the proposed project objectives. CEQA requires that an EIR identify the environmentally superior alternative of a project other than the No Project Alternative (CEQA Guidelines Section 15126.6(e)(2)). As described in Section 5.7, the proposed project would not result in any significant and unavoidable impacts. Nonetheless, project alternatives were identified to lessen impacts associated with construction and operation of the recycled water system. A synthesis of comparison of the alternatives is presented below and summarized in **Table 5-5**. Each of the Alternatives would result in similar construction and operational impacts as the proposed project with only minor differences. The Phase 1 Only Alternative would require the least amount of construction. All mitigation measures identified for the proposed project would similarly be needed for each of the Alternatives to minimize effects. Since the Phase 1 Only Alternative would reduce discharges by only 1 MGD compared to existing conditions, and would allow growth flows to continue to the Salton Sea, it would result in a lesser potential for exposure of dust-emitting lakebed. The Future Growth Flows Only Alternative would result in the lowest potential for exposure of lakebed since it would avoid reducing discharges; however, it would result in greater impacts to water quality in the CVSC and would not support conservation efforts in the Colorado River with their associated environmental benefits. Although the proposed project would result in the greatest benefits to water quality in the CVSC, Colorado River conservation efforts, and groundwater sustainability, the Phase 1 Only Alternative would be considered the environmentally superior alternative due to its smaller contribution to exposed lakebed, while resulting in the benefits of the proposed project but to a lesser degree.

TABLE 5-5
SUMMARY OF ALTERNATIVES ANALYSIS RELATIVE IMPACTS AS COMPARED TO THE PROPOSED PROJECT

Environmental Resource	Proposed Project	No Project Alternative	Phase 1 Only Alternative	Phase 1 + 2 Only Alternative	Growth Flows Since 2016 Alternative	Future Growth Flows Only Alternative
Aesthetics	LTS	-	0	0	0	0
Agricultural Resources	LTS	+	0	0	0	0
Air Quality and Greenhouse Gas	LTSM	-	-	-	-	-
Biological Resources	LTSM	-	0	0	0	0
Cultural Resources	LTSM	-	0	0	0	0
Energy	LTS	0	0	0	0	0
Geology and Soils	LTS	-	0	0	0	0
Hazards and Hazardous Materials	LTSM	-	0	0	0	0
Hydrology and Water Quality	LTS	+	0	0	0	+
Land Use	LTS	0	0	0	0	0
Noise	LTSM	-	0	0	0	0
Transportation	LTSM	-	0	0	0	0
Tribal Cultural Resources	LTSM	-	0	0	0	0

Source: ESA 2025.

Notes:

LTS = less than significant

LTSM = less than significant with mitigation

+ = more severe/more intense

- = less severe/less intense

0 = no change

5.9 References

California Department of Water Resources (DWR), 2023a. *State Water Project Delivery Capability Report*.

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SWRCB, 2024. Water Use Objective Exploration Tool. Available at: https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/water-use-explorer/.

U.S. Bureau of Reclamation (USBR), 2021. *Colorado River Basin Climate and Hydrology: State of the Science Report*.

CHAPTER 6

CEQA Plus Considerations

This Draft EIR has been prepared in accordance with the CEQA-Plus requirements of the U.S. Environmental Protection Agency (USEPA) to fulfill the requirement of potential federal funding partners to comply with the National Environmental Policy Act (NEPA). Potential federal funding partners could include the State Water Resources Control Board (SWRCB) through the State Revolving Fund (SRF) Loan Program or U.S. Bureau of Reclamation (USBR), both of which provide funding for construction of publicly-owned treatment facilities and water reclamation projects. The CEQA-Plus requirements have been established by the SWRCB and are intended to supplement the CEQA Guidelines with specific requirements for environmental documents acceptable to the USBR or USEPA when reviewing applications for wastewater treatment facility loans. They are not intended to supersede or replace the CEQA Guidelines. In order to qualify for federal loan programs, the proposed project must comply with the following federal cross-cutting regulations:

- Archaeological and Historic Preservation Act
- Clean Air Act
- Coastal Barriers Resources Act
- Coastal Zone Management Act
- Endangered Species Act
- Environmental Justice Executive Order
- Farmland Protection Policy Act
- Fish and Wildlife Conservation Act
- Floodplain Management
- Magnuson-Stevens Fishery Conservation and Management Act
- Migratory Bird Treaty Act
- National Historic Preservation Act
- Protection of Wetlands
- Rivers and Harbors Act
- Safe Drinking Water Act
- Wild and Scenic Rivers Act

Compliance with the federal laws and relevant executive orders are described below in Sections 4.1 and 4.2. In summary, the proposed project complies with those laws and executive orders, with further evidence provided in other sections of this Draft EIR as cross-referenced below.

6.1 Federal Regulations

6.1.1 Archaeological and Historic Preservation Act

The Archaeological and Historic Preservation Act (AHPA) also known as the Archaeological Recovery Act was passed and signed into law in 1974. The AHPA required that Federal agencies provide for "... the preservation of historical and archeological data (including relics and specimens) which might otherwise be irreparably lost or destroyed as the result of ... any alteration of the terrain caused as a result of any Federal construction project of federally licensed activity or program (Section 1)." (NPS 2020)

The impetus for AHPA was the destruction of archaeological sites throughout the country, frequently by actions funded or otherwise supported by Federal agencies, but not covered by the Reservoir Salvage Act, which required archeological salvage as part of dam projects (NPS 2020).

The AHPA built upon the national policy, set out in the Historic Sites Act of 1935, "... to provide for the preservation of historic American sites, buildings, objects, and antiquities of national significance ..." The AHPA expanded the policy by focusing attention on significant resources and data, but does not require that they be shown to be of "national" significance. The connection between the 1935 statute and the AHPA is mentioned explicitly in the first section of the statute (NPS 2020).

Compliance with the National Historic Preservation Act (see below), and particularly the implementing regulations for Section 106, as discussed in Section 3.5, *Cultural Resources*, of this EIR, as well as the *Water Reclamation Plant No. 4 Non-Potable Water Improvements Project, Cultural Resources Assessment* (Confidential; ESA 2024) fulfill the requirements of the AHPA.

6.1.2 Clean Air Act

The federal Clean Air Act (CAA) requires the USEPA to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, PM10, PM2.5, and lead. Pursuant to the 1990 FCAA Amendments, the USEPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for these criteria air pollutants, based on whether or not the NAAQS have been achieved. The CAA requires each state to prepare a State Implementation Plan (SIP), which is an air quality control plan that includes pollution control measures for states that violate the NAAQS. Clean Air Act compliance is described in Section 3.3, *Air Quality and Greenhouse Gas Emissions*. CEQA-Plus requirements include a CAA general conformity analysis for projects in a federal nonattainment area or an attainment area subject to a SIP. The Salton Sea Air Basin is designated under federal ambient air quality standards as nonattainment for ozone and fine particulate matter PM2.5 as explained in Section 3.3 *Air Quality and Greenhouse Gas Emissions*. As a result, a CAA general conformity analysis has been included in Section 3.3 *Air Quality and Greenhouse Gas Emissions*.

6.1.3 Coastal Barriers Resources Act

The Coastal Barriers Resources Act (CBRA) was enacted in 1982 to designate relatively undeveloped coastal barriers along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts as part of the John H. Chafee Coastal Barrier Resources System (CBRS). Those areas became ineligible for most new federal expenditures and financial assistance in order to discourage development such as federal flood insurance (USFWS 2019). The goals of the CBRA are to minimize loss of human life by discouraging development in high risk areas, to reduce wasteful expenditure of federal resources, and to protect the natural resources associated with coastal barriers (USFWS 2020). There are no designated Coastal Barrier Resources System in California. Additionally, the proposed project does not propose any development associated with coastal barriers. Therefore, this Act is not applicable to the proposed project, and no impact would occur.

6.1.4 Coastal Zone Management Act

Section 307 of the Coastal Zone Management Act (CZMA) requires activities approved or funded by the federal government that affect any land or water use or natural resource of a state's coastal zone be consistent with the enforceable policies of the state's federally approved coastal management program. California's federally approved coastal management program consists of the California Coastal Act, the McAtter-Petris Act, and the Suisun Marsh Protection Act. The California Coastal Commission (CCC) implements the California Coastal Act and the federal consistency provisions of the CZMA for activities affecting coastal resources outside of San Francisco Bay. The proposed project does not lie within a State Coastal Zone and would not result in impact to coastal zone natural resources. Therefore, this Act is not applicable to the proposed project, and no impact would occur.

6.1.5 Endangered Species Act

The purpose of the Endangered Species Act (ESA) is to protect and recover imperiled wildlife and plant species and the habitats/ecosystems upon which they depend for survival. Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found at 50 CFR 13 and 17 for species under the jurisdiction of United States Fish and Wildlife Service (USFWS) and 50 CFR 217, 220, and 222 for species under the jurisdiction of National Marine Fisheries Service (NMFS). To comply with the ESA, a project applicant analyzes the project's effects on threatened and endangered species, as well as any critical habitat designated for any of the species. The applicant uses biological assessments that have been prepared for the project, as well as any documents pertaining to the project's effects on listed species and designated critical habitat. If a listed species may be adversely affected by a project, consultation will occur with the USFWS to discuss impacts to any federally listed species or critical habitat. If USFWS staff determine the project will adversely impact a federally listed species or designated critical habitat, formal consultation is initiated. This EIR includes the documentation to disclose the proposed project's effects on special-status species and compliance with the federal ESA. Further details are discussed in Section 3.4, *Biological Resources*, as well as the Biological Resources Technical Report included in Appendix BIO to this Draft EIR.

6.1.6 Farmland Protection Policy Act

The purpose of the Farmland Protection Policy Act (FPPA) is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It additionally directs federal programs to be compatible with state and local policies for the protection of farmlands. For the purpose of the FPPA, farmland includes Prime Farmland, Unique Farmland, and Land of Statewide or Local Importance. Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency (NRCS 2020). Analysis consistent with the FPPA has been included in Section 3.2, *Agricultural and Forestry Resources*.

6.1.7 Fish and Wildlife Conservation Act

The Fish and Wildlife Conservation Act declares that fish and wildlife are of ecological, educational, esthetic, cultural, recreational, economic, and scientific value to the United States. The purposes of this Act are to encourage all federal departments and agencies to utilize their statutory and administrative authority, to the maximum extent practicable and consistent with each agency's statutory responsibilities and to conserve and to promote conservation of non-game fish and wildlife and their habitats. Another purpose is to provide financial and technical assistance to the states for the development, revision, and implementation of conservation plans and programs for nongame fish and wildlife. Further details about compliance with conservation planning is discussed in Section 3.4, *Biological Resources*.

6.1.8 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) is the principal law governing marine fisheries in the U.S. First enacted in 1976, it was adopted to create a U.S. fishery conservation zone out to 200 nautical miles off the U.S. coast, to phase out foreign fishing activities within this zone, to prevent overfishing, to allow overfished stocks to recover, and to conserve and manage fishery resources. MSA requires federal agencies to consult with the National Oceanic and Atmospheric Administration (NOAA) Fisheries when their actions or activities may adversely affect habitat identified by federal regional management councils as Essential Fish Habitat (EFH). The MSA defines EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (NOAA Fisheries 2020). The proposed project would have no adverse impact on the marine environment or EFH in the Pacific Ocean. The proposed project does not include discharge to the Pacific Ocean which could potentially impact EFH’s. Therefore, the MSA is not applicable to the proposed project, and no impact would occur.

6.1.9 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) is the domestic law that affirms, or implements, a commitment by the U.S. to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. The MBTA makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The law also applies to the removal of nests occupied by migratory birds during the breeding season. The MBTA makes it unlawful to take, pursue,

molest, or disturb these species, their nests, or their eggs anywhere in the United States. MBTA compliance is described in Section 3.4, *Biological Resources*.

6.1.10 National Historic Preservation Act

CEQA-Plus requires compliance with Section 106 of the National Historic Preservation Act (NHPA). Consultation with the State Historic Preservation Officer (SHPO) is required to demonstrate/confirm that Section 106 compliance has been achieved. This EIR and the administrative record includes the information and documentation that is required to provide to the SHPO to initiate the Section 106 consultation, including, (1) identification of the proposed project's Area of Potential Effects (APE), (2) cultural records searches for the APE at the appropriate Information Centers, (3) documentation of Native American consultation, (4) cultural resources field surveys of the APE, (4) evaluations of elements of the built environment in and around the APE that are eligible for the National Register of Historic Places, and (5) Determination of Eligibility for any cultural resources that cannot be avoided during proposed project construction. Compliance with the NHPA is discussed in Section 3.5 *Cultural Resources*, Section 3.13, *Tribal Cultural Resources*, as well as the *Water Reclamation Plant No. 4 Non-Potable Water Improvements Project, Cultural Resources Assessment* (Confidential; ESA 2024).

6.1.11 Rivers and Harbors Act

Section 9 of the Rivers and Harbors Appropriation Act of 1899 (33 U.S.C. 403; Chapter 425, March 3, 1899; 30 Stat. 1151), commonly known as the Rivers and Harbors Act of 1899, prohibits the construction of any bridge, dam, dike or causeway over or in navigable waterways of the U.S. without Congressional approval. Under Section 10 of the Act, the building of any wharfs, piers, jetties, and other structures is prohibited without Congressional approval, and excavation or fill within navigable waters requires the approval of the Chief of Engineers. The proposed project does not entail the construction of any wharfs, piers, or jetties, nor is the proposed project located on a federally designated navigable water. As such, this Act is not applicable to the proposed project, and no impact would occur.

6.1.12 Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was established to protect the quality of drinking water in the United States. The SDWA focuses on all waters actually or potentially designed for drinking uses, whether from above ground or underground sources. The principal federal agency involved in drinking water regulation is the USEPA. USEPA is responsible for implementing federal drinking water law and setting national drinking water requirements. The proposed project would increase the volume of recycled water, but would not involve potable water that would be regulated by the SDWA. Therefore, this Act is not applicable to the proposed project, and no impact would occur.

6.1.13 Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act was created in 1968 to protect and preserve the special character of certain rivers with outstanding natural, cultural and recreational values and recognize their appropriate use and development. Section 5(d)(1) of the Wild and Scenic Rivers Act lists interim protection measures for eligible or suitable rivers. For a river to be eligible for designation in the National Wild and Scenic River System, it must have one or more outstandingly remarkable river values. There are no Wild and Scenic

Rivers located within the proposed project area (National Wild and Scenic River System 2020). Therefore, this Act is not applicable to the proposed project, and no impact would occur.

6.2 Executive Orders

6.2.1 Floodplain Management, Executive Order No. 11988

Executive Order 11988 requires federal agencies avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative (FEMA 2020a). If a project has a potential impact to or within a floodplain, there is an eight-step process that agencies can carry out during their decision-making process on the project. The eight-step process includes: (1) determine if a proposed action is in the base floodplain or area which has a one percent or greater chance of flooding in any given year, (2) conduct early public review, (3) identify and evaluate practicable alternatives to locating in the base floodplain, (4) identify impacts of the proposed action, (5) develop measures to minimize the impacts and restore and preserve the floodplain if impacts cannot be avoided, (6) re-evaluate the alternatives, (7) present the findings and a public explanation, and (8) implement the action (FEMA 2020a). As discussed in Section 3.10, *Hydrology and Water Quality*, the proposed project is located in a Federal Emergency Management Agency (FEMA) identified FIRM flood hazard area. However, project components are designed to handle 100-year flood events, and would comply with federal regulations pertaining to floodplain management.

6.2.2 Protection of Wetlands, Executive Order No. 11990, as Amended by Executive Order No. 12608

Under this Executive Order No. 11990, each Federal agency takes action to minimize the destruction, degradation, or modification of wetlands and enhance the natural and beneficial values of wetlands. The Executive Order also directs the avoidance of direct or indirect support of new construction in wetlands and public involvement throughout the wetlands protection decision-making process (HUD 2020). Impacts to wetlands in the proposed project area would be avoided as described in Section 3.4, *Biological Resources*.

6.2.3 Environmental Justice, Executive Order No. 12898

Under Executive Order 12898, federal agencies are directed to make achieving environmental justice a part of their mission by identifying and addressing, as appropriate, disproportionately high adverse human health or environmental effects of its activities on minority and low-income populations (FEMA 2020b). Per Executive Order 12898, each Federal agency must make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health, environmental, economic and social effects of its programs, policies, and activities on minority and low-income populations, particularly when such analysis is required by NEPA. The Executive Order emphasizes the importance of NEPA's public participation process, directing that each Federal agency shall provide opportunities for community input in the NEPA process. Agencies are further directed to identify potential effects and mitigation measures in consultation with affected communities. An Environmental Justice Analysis is included in Section 4.3, *Environmental Justice Analysis*, below for the

proposed project per the guidelines set above to comply with federal cross cutting regulations required to receive federal funding.

6.3 Environmental Justice Analysis

This section discusses the environmental justice issues pertaining to the proposed project and evaluates the potential to disproportionately affect minority and low-income populations. The study area for environmental justice effects includes areas that may experience adverse human health or environmental effects resulting from construction and operation of a proposed project.

For the purposes of this EIR and consistency with NEPA and CEQA-Plus Guidelines, applicable local plans, and agency and professional standards, the proposed project would have a significant effect on environmental justice if it would affect the health or environment of minority or low-income populations disproportionately.

6.3.1 Environmental Setting

The study area for environmental justice effects includes areas that may experience adverse human health or environmental effects resulting from construction and operation of the proposed project, which occurs within four census tracts in Riverside County. These four census tracts are CT 456.10, CT 456.15, CT 456.16, and CT 456.19. **Table 6-1** and **Table 6-2** list demographic information and economic data for populations within the census tracts.

**TABLE 6-1
DEMOGRAPHIC INFORMATION FOR CENSUS TRACTS WITHIN THE STUDY AREA**

Geography	Total Population	Black or African American Alone, Not Hispanic or Latino		Asian Alone, Not Hispanic or Latino		Hispanic or Latino (Of Any Race)		Total Minority (Other than non-Hispanic/Latino White) ^{a,b}	
Riverside County	2,429,487	148,072	6.1%	161,597	6.7%	1,233,277	50.8%	1,641,404	67.6%
CT 456.10	3,306	0	0.0%	2	0.1%	3,164	95.7%	3,292	99.6%*
CT 456.15	2,872	0	0.0%	0	0.0%	2,467	85.9%	2,467	85.9%
CT 456.16	1,711	1	0.1%	5	0.3%	1,704	99.6%	1,710	99.9%*
CT 456. 19	3,964	22	0.6%	4	0.1%	3,859	97.4%	3,907	98.6%*
Total Project Area	11,853	23	0.2%	11	0.1%	11,194	94.4%	11,376	96.8%

Notes:

CT = census tract

a. Numbers in bold and italics represent tracts where greater than 50 percent of the total population is represented by minority population.

b. Numbers with asterisk (*) represent tracts where the minority population is meaningfully greater than the average minority populations across the CDPs within the project area.

Source: U.S. Census Bureau 2022a.

TABLE 6-2
INCOME AND POVERTY FOR CENSUS TRACTS WITHIN THE STUDY AREA

Geography	Population for Whom Poverty Status is Determined	Population Estimate Below Poverty Level	Percentage of Individuals with Family Income Below Poverty Threshold^a
Riverside County	2,392,682	272,432	
CT 456.10	3,229	752	23.3%
CT 456.15	2,872	436	15.2%
CT 456.16	1,711	388	22.7%
CT 456.19	3,964	1,294	32.6%
Total Project Area	11,776	2,870	24.4%

Notes:
 CT = census tract
 CDP = census designated place
 a. Numbers in bold and italics denote disadvantaged communities and low-income populations.
 Source: U.S. Census Bureau 2022b.

Minority Populations

The Council on Environmental Quality (CEQ) guidance defines *minority* as “Individual(s) who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic” (CEQ 1997). According to the federal CEQ guidelines for environmental justice analyses (CEQ 1997), *minority populations* should be identified where either (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is “meaningfully greater” than the majority population percentage in the general population or other appropriate unit of geographic analysis. CEQ guidance does not define the term “meaningfully greater;” however, the Federal Interagency Working Group on Environmental Justice NEPA Committee’s *Promising Practices for EJ Methodologies* (FIWGEJ 2016) suggests that the 50 percent approach and the “meaningfully greater” approach should be used together, and that “[t]he Meaningfully Greater analysis requires use of a reasonable, subjective threshold (e.g., ten or twenty percent greater than the reference community).” In identifying minority communities, agencies are directed to consider either groups of individual living in geographic proximity or a group that is geographically dispersed or transient (e.g., migrant workers), where either type of group experiences common conditions of environmental exposure or effect. As indicated by CEQ,

The selection of the appropriate unit of geographic analysis may be a governing body’s jurisdiction, a neighborhood, census tract, or other similar unit that is to be chosen so as to not artificially dilute or inflate the affected minority population. A minority population also exists if there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above-stated thresholds (CEQ, 1997).

Information regarding racial and ethnic diversity within the study area was derived from the 2022 ACS 5-Year Demographic and Housing Estimates Data Profiles by the U.S. Census Bureau. Selected racial and ethnic characteristics of census tracts within the study area are summarized in Table 6-1. The final column in Table 6-1 presents the “total minority” population percentage.

Overall, the census tracts within the study area include a total minority population of 96.8 percent, which is greater than 50 percent and thus, as a reference population, represents a minority population (U.S. Census Bureau 2022a). It was determined that all four census tracts within the proposed project area include predominantly minority populations.

The “meaningfully greater” approach is also used here to identify minority populations that exceed the percentage of the study area. No official threshold defines this term, and a lead agency must select a threshold that provides a reasonable and meaningful basis of comparison. Given the range of minority population concentrations in the vicinity of the proposed project, an inclusive threshold is used to acknowledge areas of particularly high minority populations: any census tracts within the potential area of environmental impact that have concentrated minority populations greater than the overall proposed project area’s approximate 96.8 percent are considered to be “meaningfully” greater. Three census tracts meet this criterion: CT 456.10, CT 456.16, and CT 456.19 (U.S. Census Bureau 2022a).

Based on these considerations, there is an overrepresentation of minority populations within the proposed project area (96.8 percent) and a minority community is considered to be present within the proposed project area for environmental justice purposes (U.S. Census Bureau 2022).

Low Income Populations

The CEQ environmental justice guidance states that “...low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census’ Current Population Reports, Series P-60 on Income and Poverty” (CEQ 1997, page 25). USEPA guidance recommends the use of Census data on poverty income as one indicator, as well as other available data. Unlike the CEQ guidance on minority populations, none of the environmental justice guidance documents contains a quantitative definition of what proportion of low-income individuals defines a low-income population. The annual statistical poverty thresholds are based on family income. A threshold of 50 percent of individuals in families with incomes below the poverty threshold (similar to the 50 percent threshold used to identify a minority population) would be an overly restrictive threshold for identifying a low-income population due to the nature of the poverty thresholds, which are not adjusted for costs of living, and are below levels commonly considered low-income in many areas of California.

Information regarding poverty population percentages within the study area were derived from the 2022 ACS 5-Year Estimates Poverty Status in the Past 12 Months Subject Tables by the U.S. Census Bureau and are summarized in Table 6-2.

For the purposes of this environmental justice analysis, the method of identifying low-income populations within the study area must account for the cost of living within the proposed project vicinity. Therefore, this analysis uses a comparative approach and identifies low-income populations based on whether the proportion of people with family incomes below the poverty threshold is greater than that within the general population. If the percentage of people with family incomes below the poverty threshold within each of the census tracts is greater than that of the overall County (11.4 percent), then that census tract would be considered a low-income community that could be disproportionately impacted by the proposed project (U.S. Census Bureau 2022). As shown in Table 6-2, within the proposed project area, all of the census tracts have a greater population percentage below the poverty line within Riverside County

overall. Therefore, the populations within the proposed project area meet the threshold for low-income populations.

As discussed above, the study area analyzed for environmental justice impacts contains a minority community and relative low-income population based on the criteria set out above. As such, the proposed project would have the potential to affect the health or environment of a minority community or low-income population disproportionately.

6.3.2 Significance Thresholds and Criteria

For the purposes of this EIR and consistency with the NEPA- and CEQA-Plus Guidelines, applicable local plans, and agency and professional standards, the proposed project would be considered to have a significant effect on environmental justice if it would:

- Affect the health or environment of minority or low-income populations disproportionately.

6.3.3 Impacts and Mitigation Measures

Construction

Construction-related environmental impacts would be experienced within portions of Riverside County near Thermal, California. For the purposes of this discussion and as identified in Tables 6-1 and 6-2, above, only tracts that represent greater than the overall proposed project area's approximate 96.8 percent are considered minority communities, and tracts with a poverty rate above 11.4 percent are considered low income.

Construction impacts of the proposed project are explained in detail in Sections 3.1 through 3.13 of this Draft EIR. Environmental topics that have the potential to exacerbate existing disproportionate impacts on minority and low-income populations during construction include Section 3.3, *Air Quality and Greenhouse Gases*; 3.8, *Hazards and Hazardous Materials*; 3.11, *Noise*; and 3.12, *Transportation*.

The primary construction related environmental impact related to air quality that could have the potential to exacerbate existing disproportionate impacts on minority and low-income populations include exposure of people to the spores that cause Valley Fever from fugitive dust generated during construction. However, onsite workers are the most at risk of contracting Valley Fever, due to their proximity to the potentially impacted soils. Furthermore, the proposed project would comply with South Coast Air Quality Management District (SCAQMD) fugitive dust control rules and the Cal/OSHA requirements for the protection of construction workers, and would implement **Mitigation Measure AQ-1**, which would require implementation of measures to reduce potential Valley Fever impacts during grading where the top 12-18 inches of soil would be disturbed. As a result, the proposed project impacts with respect to Valley Fever would be reduced to a less than significant level within minority and low-income areas.

As discussed in Section 3.8, *Hazards and Hazardous Materials*, construction of the proposed project would occur within local rights of way and may temporarily restrict vehicular traffic which could result in delayed response times for emergency responders. Although passage through intersections would be maintained and the effects on emergency responders would be limited, this could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency

evacuation plan that could exacerbate existing disproportionate impacts on minority and low-income populations. However, the proposed project would prepare a Traffic Control Plan to ensure emergency access and safety on the local road network in accordance with **Mitigation Measure TRA-1**. This measure would specify traffic control measures and ensure that appropriate emergency providers are notified ahead of planned road closures. Therefore, impacts to emergency response and evacuation would be reduced to a less than significant level within minority and low-income communities.

Construction noise and vibration would be associated with equipment use onsite and haul truck trips along haul routes, which occur within all affected census tracts. The closest project component to be constructed near sensitive receptors would be pipelines which would occur as close as 25 feet from the property line of sensitive receptors along the pipeline routes. Facilities could expose sensitive receptors to noise levels in excess of established County thresholds of 85 dBA REL over an 8-hour period when located at least 25 feet of an active construction area depending on the equipment needed. Exposures at or above this level are considered hazardous resulting in a potentially significant impact. It should be noted that pipeline construction would be short-term in duration and would expose sensitive receptors to temporary increases in noise levels because the construction activities would move along the pipeline route (i.e., roadways) as the pipeline is installed. It is anticipated that pipeline installation would be installed in 100 feet increments each day. In addition, Riverside County Ordinance No. 847 exempts certain agencies and/or uses from the general established noise standards including facilities owned or operated by or for a government agency. CVWD, a governmental agency, owns and will operate the facilities being proposed as part of the proposed project, and is therefore exempt from the County's noise regulations for construction. **Mitigation Measures NOISE-1** would be required to provide provisions to reduce construction noise activities adjacent to sensitive receptors. It is anticipated that any work outside of the County ordinance allowable hours would be brief to accommodate a temporary construction activity. As such, the proposed project would not create significant impacts to noise and vibration within low income or minority populations.

As discussed in Section 3.12, *Transportation*, construction of proposed pipelines would result in lane or road closures when the pipelines would be installed; however, they would be short-term, temporary, and would not cause any permanent impacts to the residents. As discussed in Section 3.12, *Transportation*, to ensure that the proposed project does not cause a significant impact, a Traffic Control Plan would be required (see Mitigation Measure TRA-1). As such, the proposed project would not create significant impacts to traffic and transportation within low income or minority populations.

Operation

Operation of the proposed project would not create local impacts related to air quality and greenhouse gases, hazards and hazardous materials, noise, or transportation that could disproportionately affect public health of minority populations or low-income communities. Once constructed, the pipelines would be below ground with the surface disturbance restored to pre-construction conditions. As such, the land value of the surrounding neighborhoods would not be affected, regardless of demographics or socioeconomic status. Furthermore, modifications at the WRP 4 facility would occur within the existing facility boundaries, to which nearby minority populations and low-income communities are already accustomed, and once constructed, all pipelines would be located underground and would not impact target communities. As stated in Section 3.3, *Air Quality and Greenhouse Gases*, operation of the proposed project would not generate regional or local emissions that would exceed the SCAQMD thresholds of

significance or expose sensitive receptors to substantial toxic air contaminant concentrations. The treatment plant expansion would produce minimal noise associated with normal operation of a business and would be in line with the existing noise produced at the plant. Operational truck trips would be minimal, as it is estimated there would be an average of five chemical truck deliveries per month and four truck trips per week for screenings and grit removal which would not substantially increase traffic compared to existing conditions. Finally, as discussed within Section 3.8, *Hazards and Hazardous Materials*, an updated Hazardous Materials Business Plan would provide a detailed description of procedures for the proper storage, use, and spill response, all in compliance with federal, state, and local regulations. With compliance with storage and use regulations, the routine use or an accidental spill of hazardous materials would be less than significant. Therefore, the proposed project would not significantly affect public health of minority populations or low-income communities.

6.4 References

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CHAPTER 7

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