

# Purified Water Replenishment Project

## SCH No. 2020049002

# Final Environmental Impact Report

May 2021

Prepared for:

**Eastern Municipal Water District**

2270 Trumble Road

Perris, CA 92570

Prepared by:

**HELIX Environmental Planning, Inc.**

7578 El Cajon Boulevard

La Mesa, CA 91942

This page intentionally left blank

# Final Environmental Impact Report Table of Contents

---

Section I - Introduction

Section II - Comments Received on the Draft EIR and Responses

Section III - Mitigation Monitoring and Reporting Program

Section IV - Final Environmental Impact Report

Section V - Appendices

This page intentionally left blank

# Section I

---

Introduction

# I. INTRODUCTION TO THE FINAL EIR

---

A Draft Environmental Impact Report (EIR) was prepared by Eastern Municipal Water District (District) for the Purified Water Replenishment Project (project; State Clearinghouse No. 2020049002) and circulated for a 45-day public review beginning February 17, 2021. All written comments received on the Draft EIR during the public review period, responses to the comments, and any revisions to the Draft EIR have been incorporated into this Final EIR.

This Final EIR has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) and the CEQA guidelines. The purpose of the Final EIR is to provide the decision-making body, in this case the District, public and quasi-public agencies and groups, and the general public environmental impact information relative to the proposed project. The District must consider the information contained in this Final EIR prior to approving the proposed project.

This Final EIR includes the following items as required in Section 15132 of the State CEQA Guidelines:

- The Draft EIR or a revision of the Draft EIR;
- Comments and recommendations received on the Draft EIR either verbatim or in summary;
- List of persons, organizations, and public agencies commenting on the Draft EIR;
- Responses of the lead agency to significant environmental points raised in the review and consultation process; and
- Any other information added by the lead agency.

## PUBLIC PARTICIPATION PROCESS

The District circulated a Notice of Preparation (NOP) of an EIR on April 2, 2020 for review by applicable local, state, and federal agencies and the public. The NOP was mailed to interested parties and landowners adjacent to the project's proposed facilities, published in The Press-Enterprise newspaper and on the District's website, and submitted to the Governor's Office of Planning and Research (OPR) State Clearinghouse for distribution to relevant state agencies.

The NOP provided a general description of the facilities associated with the project, a summary of the probable environmental effects of the project to be addressed in the Draft EIR, and figures showing the project location. The NOP provided the public and interested public agencies with the opportunity to review the facilities to be constructed as part of the project and to provide comments or concerns on the scope and content of the Draft EIR.

State law mandates that responses to the NOP must be postmarked within 30 days from distribution of the NOP; however, in light of the COVID-19 pandemic, which may have limited ability for NOP review and comments, and which resulted in the District not being able to hold a scoping meeting, responses postmarked within 60 days from distribution of the NOP, or through June 1, 2020, were accepted. During the scoping period, four comment letters were received.

Upon completion of the Draft EIR, the District submitted a Notice of Completion to the OPR State Clearinghouse, as required by CEQA Guidelines Section 15085, and uploaded an electronic copy of the Draft EIR to OPR's CEQAnet Web Portal. The District also submitted a Notice of Availability (NOA) of the Draft EIR with the Riverside County Clerk (CEQA Guidelines Section 15087(d)) and published the NOA in The Press-Enterprise newspaper on February 17, 2021 (per CEQA Guidelines Section 15087(d)). The District also mailed copies of the NOA to interested parties and landowners adjacent to the project's proposed facilities.

The Draft EIR was available electronically on the District's website. Due to the COVID-19 situation and limited operations of libraries in response to social distancing requirements, paper copies of the Draft EIR were not made available at local libraries. The Draft EIR was available for public review from February 17, 2021 to April 2, 2021 for a total of 45 days as required by CEQA Guidelines Section 15105(a). Two comment letters were received on the Draft EIR for the project.

## FINAL EIR ORGANIZATION

The Final EIR is organized in five sections. The Introduction contained in Section I of the Final EIR explains the purpose of the Final EIR and describes the public review, EIR certification and project approval process. The Notice of Availability the Draft EIR is also contained in this section, in addition to a copy of the printed public notice.

The Comments Received on the Draft EIR and Responses contained in Section II of the Final EIR include the letters received during the Draft EIR public review period, comments provided at the public hearing, and the District's responses to each comment. The comments are reproduced with the corresponding responses on the same page, with numbered brackets added to highlight the specific comments on the Draft EIR.

The MMRP contained in Section III of the Final EIR has been prepared in response to Section 15097 of the State CEQA Guidelines. The State CEQA Guidelines require that an MMRP be adopted upon certification of an EIR to ensure mitigation measures identified in the EIR are implemented.

The full text of the Final EIR is contained in Section IV of the Final EIR. The Final EIR is presented herein with changes incorporated as a result of comments received during public review; revisions are identified in the Revisions to the Draft EIR section below. No new significant impacts or increased magnitude of impacts have been identified as part of the Final EIR process, and the impact conclusions reached in the Draft EIR have not changed. Recirculation is not mandated because the changes presented herein merely clarify or make insignificant modifications to information in an adequate EIR (State CEQA Guidelines Section 15088.5[b]).

Section V of the Final EIR includes the appendices to the EIR.

## REVISIONS TO THE DRAFT EIR

Based on District review and in response to comments received, some text published in the Draft EIR has been revised. Changes presented herein are by section, in their order within the Final EIR. Those sections where no content changes were made are not included. The changes are described below and shown in ~~strike-out~~/underline format to signify deletions and inserts in the EIR text.

## Executive Summary

The text of the Executive Summary has been updated to modify the language of mitigation measure MM-BIO-3.

*In Table S-1, the first sentence of MM-BIO-3 on page ES-8 was revised:*

Trimming, grubbing, and clearing of vegetation shall be avoided during the general avian breeding season (January 15 to July 15 for raptors; February 15 to August 31 for other avian species) to the extent feasible and shall not occur within sensitive vegetation communities or suitable habitat for sensitive bird species.

## Section 4.3, Biological Resources

The text of this section has been updated to modify the language of mitigation measure MM-BIO-3.

*In Section 4.3.4.1 under the heading Mitigation Measures, the first sentence of MM-BIO-3 on page 4.3-13 was revised:*

Trimming, grubbing, and clearing of vegetation shall be avoided during the general avian breeding season (January 15 to July 15 for raptors; February 15 to August 31 for other avian species) to the extent feasible and shall not occur within sensitive vegetation communities or suitable habitat for sensitive bird species.

## FINAL EIR CERTIFICATION AND PROJECT APPROVAL PROCESS

As required by section 15088(b) of the CEQA Guidelines, the District will provide written responses to comments made by public agencies at least ten days in advance of the meeting at which the Board of Directors will consider certification of the EIR and approval of the project.

Prior to considering the project for approval, the District will review and consider the information presented in the Final EIR and will certify that the Final EIR has been adequately prepared in accordance with CEQA. Once the Final EIR is certified, the District Board of Directors may proceed to consider project approval (CEQA Guidelines Section 15090; Section 15096(f)). Prior to approving the project, the District must make written findings and, if necessary, adopt statements of overriding considerations for each unmitigated significant environmental effect (if any) identified in the Final EIR in accordance with Section 15091 of the CEQA Guidelines.

## NOTICE OF DETERMINATION

Pursuant to Section 15094 of the CEQA Guidelines, the District will file a Notice of Determination (NOD) with the State Clearinghouse and the Riverside County Clerk within five working days of project approval.

## Eastern Municipal Water District

2270 Trumble Road  
P.O. Box 8300  
Perris, CA 92572-8300



# Notice of Availability Draft Environmental Impact Report

---

**Date:** February 16, 2021  
**To:** State Clearinghouse; Responsible and Trustee Agencies; and Other Interested Parties  
**Subject:** Notice of Availability of an Environmental Impact Report  
**Project:** Purified Water Replenishment Project (SCH No. 2020049002)  
**Lead Agency:** Eastern Municipal Water District

Eastern Municipal Water District (District) has prepared a Draft Environmental Impact Report (EIR) for the proposed Purified Water Replenishment Project (project) in accordance with the California Environmental Quality Act (CEQA).

**Public Review and Comments:** The District is soliciting comments from the public regarding the content of the Draft EIR. The Draft EIR will be used by the District Board of Directors when considering approval of the proposed project. Pursuant to Section 15204 of the CEQA Guidelines, in reviewing Draft EIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. The District has established a 45-day review period for this Draft EIR from Wednesday, February 17, 2021 to Friday, April 2, 2021 compliant with the requirement of Section 21091 of the Public Resources Code. Written comments on the Draft EIR should be sent to Joseph Broadhead at the mailing address and/or email address shown below by **5:00 p.m. on April 2, 2021**. A contact name and return address or email address should be included with your comments.

Joseph Broadhead  
Principal Water Resource Specialist – CEQA Compliance  
Eastern Municipal Water District  
P.O. Box 8300 / 2270 Trumble Road  
Perris, CA 92572  
[EMWD\\_comments@helixepi.com](mailto:EMWD_comments@helixepi.com)

**Document Availability:** The Draft EIR is available electronically at: <https://www.emwd.org/public-notice>. Due to the current COVID-19 situation and limited operations of libraries in response to social distancing requirements, paper copies of the Draft EIR will not be available at local libraries. Paper copies of the Draft EIR can be made available for review at the District's office lobby upon request.

**Location of the Proposed Project:** The proposed project would be located at multiple sites predominantly within the city of San Jacinto, with one location just outside the eastern city limits in unincorporated Riverside County. The project's proposed aboveground facilities would be located adjacent to the northern boundary of the District's existing San Jacinto Valley Regional Water Reclamation Facility (SJVRWRF) at 770 North Sanderson Avenue and at the District's existing Alessandro Ponds site near the intersection of West Ramona Parkway and North Vernon Avenue. The project has two belowground pipeline segments. One of the project's belowground pipelines, the

advanced treated water pipeline, would slipline an existing 18-inch pipeline with a new 16-inch pipeline following a route northeast from the SJVRWRF in an unpaved roadway, northeast along North Lyon Avenue, and southeast along Ramona Expressway, where it would turn off northeast to near the District's existing Alessandro Ponds site. The project's second pipeline would convey blended advanced treated water and tertiary recycled water and run from near the Alessandro Ponds site southeast along Ramona Expressway to the District's existing Mountain Avenue West Recharge Basin at the intersection of Ramona Expressway and East Esplanade Court.

**Overview of the Proposed Project:** The District is proposing to implement the project that would replenish the San Jacinto Upper Pressure Groundwater Management Zone aquifer with a combination of recycled water and advanced treated water to reduce reliance on imported water sources, provide improved drought resiliency, and potentially improve the quality of the groundwater basin utilized by the District. The proposed project would include: (1) construction of an Advanced Water Treatment (AWTF); (2) construction of a brine management system; (3) construction of Alessandro Blending Station facilities; (4) reline an existing 18-inch-diameter conveyance pipeline; and (5) construction of a new 36-inch-diameter conveyance pipeline.

The proposed AWTF would be constructed on an approximately five-acre site located adjacent to the northern boundary of the existing SJVRWRF. The AWTF site would initially (during Phase I) include an approximately 20,800-gross square foot (GSF) Process and Control Building that would be divided into two main areas: a control area and a process area. The control area would contain a public area and a District administrative staff area. The public area would include an entry lobby, an education/exhibit area, a conference and public meeting room, restrooms, and a private District outreach staff person's office. The administrative staff area would contain an operations supervisor's office, control room, break room, server room, storage room, and mechanical/rise room. Within the process area, the major process area would house a membrane filtration (MF) system and a high-recovery reverse osmosis (RO) facility that would be used for the advanced treatment of recycled water. The ancillary facilities area would contain the electrical, MF compressor, and building mechanical rooms. The chemical pump area would include the AWTF's chemical pumps. Upon implementation of Phase II of the project, the process area would accommodate a 10,400-GSF expansion. Other proposed facilities at the AWTF site outside of the Process and Control Building would include a chemical storage facility, emergency generator, standby generator, transformer, four new pump stations, paved access with parking, and two stormwater bioretention basins.

During operation of the AWTF, the tertiary recycled water produced at the SJVRWRF would be further treated through the new MF/RO process, which would reduce total organic carbon (TOC), total dissolved solids (TDS), and nitrogen concentrations creating advanced treated water, or what is referred to as "RO permeate."

Concentrated brine generated during the RO process would be managed and stored using a system of five interconnected evaporation ponds that would have a total surface area of approximately 20 acres and be located north of the proposed AWTF site. The ponds would be lined with a containment and monitoring system to prevent leaks and would include the use of mechanical spray evaporators to enhance natural evaporation.

Advanced treated water from the AWTF site and tertiary recycled water from the SJVRWRF would be conveyed, via two separate pipelines (one of which would be sliplined as part of the project), to the Alessandro Blending Station where they would be blended in-pipe before the combined flow is conveyed to the Mountain Avenue West Recharge Basin, via a new pipeline to be constructed as part of the project. The blending facility pipes, including the two inflow pipes, connection pipes, and one outflow pipe, would be located on an approximately 48-foot by 34-foot concrete equipment pad southeast of the existing pressure regulating station downstream of the Alessandro Pump Station. A pressure regulating valve would be provided at the blending facility for the option to discharge advanced treated water into the adjacent existing Alessandro Ponds forebay for operational storage.

The project would require pipelines to convey advanced treated water from the AWTF to the Alessandro Blending Station as well as blended water from the Alessandro Blending Station to the Mountain Avenue West Recharge Basin. Advanced treated water would be conveyed from the AWTF to the Alessandro Blending Station via an existing 4.1-mile (21,700-linear foot) 18-inch-diameter recycled water pipeline that extends east from the southern

side of the SJVRWRF to approximately the intersection of Alessandro Avenue North and Ramona Expressway. The existing cement-mortar-lined steel pipeline would be sliplined with new 16-inch-diameter high density polyethylene (HDPE) pipe. Blended water from the Alessandro Blending Station would be conveyed to the Mountain Avenue West Recharge Basin via a new approximately 2.7-mile (14,200-linear foot) 36-inch-diameter HDPE pipeline that would be constructed within the eastern shoulder of Ramona Expressway.

Combined flows from the Alessandro Blending Facility would be conveyed, via the above-mentioned proposed 36-inch-diameter pipeline, to the District's existing Mountain Avenue West Recharge Basin, where the water would be stored, would percolate into the belowground aquifer, and would eventually be recovered for use as potable water.

**Potential Environmental Effects of the Proposed Project:** This Draft EIR evaluates environmental impacts of the proposed project and suggests mitigation measures where necessary to reduce impacts to a less than significant level. Significant impacts have been identified in the Draft EIR associated with biological resources, cultural and tribal cultural resources, paleontological resources, noise, and transportation. However, all impacts would be reduced to less than significant levels under CEQA through implementation of the mitigation measures identified in the Draft EIR. The proposed project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Section 65962.5 of the Government Code. No significant, unmitigable impacts associated with implementation of the project have been identified.

**PANDEMIC**

**Report: Medical N95 masks rationed as stockpiles swell**

**NEW YORK** — One year into the COVID-19 pandemic, millions of medical-grade N95 face masks are pouring out of American factories and heading into storage, yet doctors and nurses say there still aren't enough to keep them safe.

An Associated Press investigation found a logistical breakdown at the heart of the protracted mask shortage, noted in federal failures to coordinate supply chains and provide hospitals with clear rules about how to manage their medical equipment.

Exclusive trade data and interviews with manufacturers, federal regulators, hospital procurement officials and frontline medical workers reveal a communication breakdown. In Fort Worth, Texas, medical-grade mask manufacturer Frontage America's warehouse is piled high with cases of N95s. It can churn out 1 million every four days. But there aren't orders for nearly that many, as Frontage recently got government approval to export them.

— The Associated Press

**FLORIDA**

**Trump, in attack on McConnell, urges GOP to replace him**

**PALM BEACH, FLA.** — Former President Donald Trump on Tuesday made a scathing and lengthy attack on Sen. Mitch McConnell, the Republican minority leader, calling him a "liar, sinner, and unsmiling political hack" and arguing that the party would suffer losses in the future if he remained in charge.

"If Republican senators are going to stay with him, they will not win again," Trump said. The 600-word statement, coming three days after the Senate acquitted him in his second impeachment trial, was trained solely on McConnell and sought to paint Trump as the best leader of the GOP going forward. The statement did not include any signs of criticism from Trump for his remarks to a crowd of supporters who then attacked the Capitol on Jan. 6. Nor did it include any acknowledgment of his role during the violent hours in which his new vice president and members of Congress were under threat.

— The New York Times

**PANDEMIC**

**Epstein ex-girlfriend alleges abuse by guard in federal jail**

**NEW YORK** — Jeffrey Epstein's former girlfriend claimed through her lawyer Tuesday that a guard physically abused her at a federal lockup in Brooklyn, and then she was punished for complaining about it.

Attorney Robbi Sternheim wrote in a letter to a Manhattan federal judge that the abuse occurred recently at the Metropolitan Detention Center as Ghislaine Maxwell was undergoing a pat-down search in her isolation cell.

The lawyer said the British socialite asked that a camera be used to capture what was occurring, but a guard "refused" to do so.

"When Ms. Maxwell resented in pain and when she said she would report the mistreatment, she was threatened with disciplinary action," Sternheim said.

Days later, Maxwell was retaliated against for reporting the abuse when a guard ordered her into a shower to clean, sanitize, and scrub the walls with a broom, the lawyer said.

— The Associated Press

**INDIANA**

**Overnight fire kills 100 animals at Indianapolis pet store**

**INDIANAPOLIS** — An estimated 100 animals died when an overnight fire filled an Indianapolis pet store with thick smoke and deadly gases, fire officials said.

It took firefighters about an hour to extinguish the blaze at Uncle Billy Pet Center on Monday night because they had difficulty accessing the fire in the building's back roof area, the Indianapolis Fire Department said.

After dousing flames that had filled the building with thick, black smoke, crews discovered "what can only be described as a horrible tragedy" inside, with about 40 dogs, 25 parakeets, rabbits and other animals dead from smoke inhalation, Battalion Chief Rita Reith said in a news release.

"The animals were still in their respective cages and simply succumbed to the deadly gases produced by the smoke," Reith wrote.

Stalightly reptiles, fish, an octopus and "a resident guinea pig" that survived the fire were removed.

— The Associated Press

**SEVERE WEATHER**



ONLY PLAIN, BRUNSWICK COUNTY SHERIFF'S OFFICE — FOR THE ASSOCIATED PRESS  
A damaged vehicle is seen among debris after a deadly tornado tore through Brunswick County in North Carolina on Tuesday. A tornado killed three people and injured 15 on the barrier island of Ocean Isle Beach.

# At least 20 are dead from massive storm

By Bryan Anderson  
The Associated Press

**OCEAN ISLE BEACH, N.C.** — A winter storm that left millions without power in record-breaking mild weather claimed more lives Tuesday, including three people found dead after a tornado hit a seaside town in North Carolina and four family members who perished in a floodwaters-rising house fire while using a fireplace to stay warm.

The storm that overwhelmed power grids and immobilized the Southern Plains carried heavy snow and freezing rain into New England and the Deep South and left behind painfully low temperatures. Wind-chill warnings extended from Canada into Mexico.

In all, at least 20 deaths were reported. Other causes included car crashes and carbon monoxide poisoning. The weather also threatened to affect the nation's COVID-19 vaccination effort. President Joe Biden's administration said delays to vaccine shipments and deliveries were likely.

North Carolina's Brunswick County had little notice of the dangerous weather, and a tornado warning was not issued until the storm was already on the ground.

The National Weather Service was "very surprised" how rapidly this storm intensified ... and at the time

of night when most people are at home and in bed, it creates a very dangerous situation," Emergency Services Director Ed Connor said.

The worst U.S. power outages were in Texas, affecting more than 2 million homes and businesses.

**Cosmetic & General Dentistry**  
*Riverside County's Finest Quality World Class Dentist*  
**NEW DENTAL IMPLANT TECHNOLOGY CAN MAKE YOU SMILE BIG AGAIN!**  
 If you choose to work with us, you will receive:  
 4 Denture Supporting Implants for **\$2,999**  
 Includes full upper & lower dentures and bone grafting (when needed)  
**Partial/Full Dentures**  
 Afraid To Smile? Dentures Shift? Sore Gums? Trouble Speaking?  
 Old Denture Remodeling  
 Includes new denture teeth with new denture denture dentures  
 Call Today for Your Appointment **951-367-1345**  
**RAIN CROSS DENTAL** **FREE**  
 Cosmetic & General Dentistry  
 7028 Indiana Ave. • Riverside, CA 92506  
 Visit our website at: [www.raincrossdental.com](http://www.raincrossdental.com)

**Eastern Municipal Water District**  
 2270 Trumble Road, P.O. Box 8300  
 Perris, CA 92572-8300

**Notice of Availability of a Draft Environmental Impact Report – Newspaper Ad Purified Water Replenishment Project**

To be published February 17, 2021

Eastern Municipal Water District (District) has prepared a Draft Environmental Impact Report (DIR) for the proposed Purified Water Replenishment Project (project) in accordance with the California Environmental Quality Act (CEQA).

**Public Review and Comments:** The District is soliciting comments from the public regarding the content of the Draft DIR. The Draft DIR will be used by the District Board of Directors when considering approval of the proposed project. Pursuant to Section 15203 of the CEQA Guidelines, in reviewing Draft DIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. The District has established a 45-day review period for the Draft DIR from Wednesday, February 17, 2021 to Friday, April 2, 2021 consistent with the requirement of Section 71081 of the Public Resources Code. Written comments on the Draft DIR should be sent to Joseph Broadhead, Principal water resource Specialist - CEQA Compliance, Eastern Municipal Water District, P.O. Box 8300/2270 Trumble Road, Perris, CA 92572 or [emwd.comments@emwd.com](mailto:comments@emwd.com) by 5:00 p.m. on April 2, 2021. A contact name and return address or email address should be included with your comments.

**Document Availability:** The Draft DIR is available electronically at: <http://www.emwd.org/public-notices>. Due to the current COVID-19 situation and limited operations of libraries in response to social distancing requirements, paper copies of the Draft DIR will not be available at local libraries. Paper copies of the Draft DIR can be made available for review at the District's office lobby upon request.

**Location of the Proposed Project:** The proposed project would occur at multiple locations predominantly within the city of San Jacinto, with one location just outside the eastern city limits in unincorporated Riverside County. The project's proposed aboveground facilities would be located adjacent to the northern boundary of the District's existing San Jacinto Valley Regional Water Reclamation Facility (SJWRWF) at 770 North Sanderson Avenue and at the District's existing Alessandro Ponds site near the intersection of West Ramona Parkway and North Vernon Avenue. The project has two belowground pipeline segments. One of the project's belowground pipelines, the advanced treated water pipeline, would utilize an existing 18-inch pipeline with a new 18-inch pipeline following a route northeast from the SJWRWF in an unopened roadway, northeast along North Lyon Avenue, and southeast along Ramona Expressway, where it would turn off northeast to near the District's existing Alessandro Ponds site. The project's second pipeline would convey blended advanced treated water and tertiary recycled water and run from near the Alessandro Ponds site southeast along Ramona Expressway to the District's existing Mountain Avenue West Recharge Basin at the intersection of Ramona Expressway and East Esplanade Court.

**Overview of the Proposed Project:** The District is proposing to implement the project that would replenish the San Jacinto Upper Pressure Groundwater Management Zone aquifer with a combination of recycled water and advanced treated water to reduce reliance on imported water sources, provide improved drought resiliency, and potentially improve the quality of the groundwater basin utilized by the District. The proposed project would include: (1) construction of an Advanced Water Treatment (AWT); (2) construction of a brine management system; (3) construction of Alessandro Blending Station facilities; (4) reuse an existing 18-inch-diameter conveyance pipeline; and (5) construction of a new 36-inch-diameter conveyance pipeline.

**Potential Environmental Effects of the Proposed Project:** The Draft DIR evaluates environmental impacts of the proposed project and suggests mitigation measures where necessary to reduce impacts to a less than significant level. Significant impacts have been identified in the Draft DIR associated with biological resources, cultural and tribal cultural resources, paleontological resources, noise, and transportation. However, all impacts would be reduced to less than significant levels under CEQA through implementation of the mitigation measures identified in the Draft DIR. The proposed project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Section 65962.5 of the Government Code. No significant, unavoidable impacts associated with implementation of the project have been identified.

**News feed**

**WASHINGTON**

**Biden optimistic on reopening of elementary schools**

**MILWAUKEE** • President Joe Biden is promising a majority of elementary schools will be open five days a week by the end of his first 100 days in office, restating his original goal after his administration came under fire when aides said schools would be considered open if they held in-person learning just one day a week.

Biden's comments, during a CNN town hall in Milwaukee, marked his clearest statement yet on school reopenings. Biden had pledged in December to reopen "the majority of our schools" in his first 100 days but has since faced increasing questions about how he would define and achieve that goal, with school districts operating under a patchwork of different virtual and in-person learning arrangements nationwide.

"I said open a majority of schools in K through eighth grade, because that's the easiest to open, the most needed to be open in terms of the impact on children and families having to stay home," Biden said.

— *The Associated Press*

**INDONESIA**



Winter solstice: A man carries his surfboard as he walks on Kuta beach during the sunset in Bali, Indonesia, on Tuesday.

**CONGRESS**

**Dem's lawsuit accuses Trump of inciting deadly Capitol riot**

**WASHINGTON** • The House Homeland Security chairman accused Donald Trump in a federal lawsuit Tuesday of inciting the deadly insurrection at the U.S. Capitol and conspiring with his lawyer and extremist groups to try to prevent Congress from certifying the results of the presidential election he lost to Joe Biden.

The lawsuit from Democratic Rep. Bennie Thompson is part of an expected wave of litigation over the Jan. 6 riot and is believed to be the first filed by a member of Congress. It seeks unspecified punitive and compensatory damages. It also names as defendants Rudy Giuliani, Trump's personal lawyer, and the Proud Boys and the Oath Keepers, extremist organizations that Trump had members charged by the Justice Department with taking part in the siege. "I wanted to do as my job, and the instructions that occurred prevented me from doing that," Thompson, D-Miss., told reporters Tuesday.

— *The Associated Press*

**PANAMA**

**Report: Medical N95 masks rationed as stockpiles swell**

**NEW YORK** • One year into the COVID-19 pandemic, millions of medical-grade N95 face masks are piling out of American factories and heading into storage, yet doctors and nurses say there still aren't enough to keep them safe.

An Associated Press investigation found a logistical breakdown at the heart of the perceived mask shortage, rooted in federal failures to coordinate supply chains and provide hospitals with clear rules about how to manage their medical equipment.

Exclusive trade data and interviews with manufacturers, federal regulators, hospital government officials and frontline medical workers reveal a communication breakdown.

In Fort Worth, Texas, medical-grade mask manufacturer Prestige America's warehouse is piled high with cases of N95s. It can churn out 1 million every four days, but there aren't orders for nearly that many, so Prestige recently got government approval to export them.

— *The Associated Press*

**FLORIDA**

**Trump, in attack on McConnell, urges GOP to replace him**

**PALM BEACH, Fla.** • Former President Donald Trump on Tuesday made a scolding and lengthy attack on Sen. Mitch McConnell, the Republican majority leader, calling him a "liar, thief, and meddling political hack" and arguing that the party would suffer losses in the future if he remained in charge.

"If Republican senators are going to stay with him, they will not win again," Trump said.

The 400-word statement, coming three days after the Senate acquitted him in his second impeachment trial, was trained solely on McConnell and sought to paint Trump as the real leader of the GOP going forward. The statement did not include any sign of criticism from Trump for his remarks to a crowd of supporters who then attacked the Capitol on Jan. 6. Nor did it include any acknowledgment of his role during the violent hours in which his own vice president and members of Congress were under threat.

— *The New York Times*

**INDONESIA**

**Epstein ex-girlfriend alleges abuse by guard in federal jail**

**NEW YORK** • Jeffrey Epstein's former girlfriend claimed through her lawyer Tuesday that a guard physically abused her at a federal lockup in Brooklyn, and then she was punished for complaining about it.

Melanny Bibb Sherburne wrote in a letter to a Manhattan federal judge that the abuse occurred recently at the Metropolitan Detention Center as Giuliana Maxwell was undergoing a jail downer search in her indictment case.

The lawyer said the British socialite asked that a camera be used to capture what was occurring, but a guard "refused" her.

"When Ms. Maxwell resisted in pain and when she said she would report the mistreatment, she was threatened with disciplinary action," Sherburne said.

Days later, Maxwell was retaliated against for reporting the abuse when a guard ordered her into a shower to clean, scrub, and scrub the walls with a brush, the lawyer said.

— *The Associated Press*

**INDONESIA**

**Overnight fire kills 100 animals at Indianapolis pet store**

**INDIANAPOLIS** • An estimated 100 animals died when an overnight fire killed an Indianapolis pet store with thick smoke and deadly gases, fire officials said.

It took firefighters about an hour to extinguish the blaze at Chuck Hill Pet Center on Monday night because they had difficulty accessing the fire in the building's back roof area, the Indianapolis Fire Department said.

After drawing flames that had filled the building with thick, black smoke, crews discovered "what can only be described as a horrible tragedy" inside, with about 40 dogs, 25 parakeets, rabbits and other animals dead from smoke inhalation, Battalion Chief Russ Roth said in a news release.

"The animals were still in their respective cages and simply asphyxiated to the deadly gases produced by our smokes," Roth wrote.

Multiple reptiles, fish, an office cat and "a resident guinea pig" that survived the fire were recovered.

— *The Associated Press*

**SEVERE WEATHER**



A damaged vehicle is seen among debris after a deadly tornado tore through Brunswick County in North Carolina on Tuesday. A tornado killed three people and injured 10 on the barrier island of Dungen Spit Beach.

**At least 20 are dead from massive storm**

By Bryan Anderson  
*The Associated Press*

**OCEAN ISLE BEACH, N.C.** • A winter storm that left hundreds without power in its north-breaking cold weather claimed more lives Tuesday, including three people found dead after a tornado hit a seaside town in North Carolina and four family members who perished in a Houston-area house fire while using a fireplace to stay warm.

The storm that overwhelmed power grids and immobilized the South-

west Coast had little notice of the dangerous weather, and a tornado warning was not issued until the storm was already on the ground.

The National Weather Service was "very surprised how rapidly this storm intensified... and at the time

of night when most people are at home and in bed, it creates a very dangerous situation," Emergency Services Director Ed Corrow said.

The worst U.S. power outages were in Texas, affecting more than 2 million homes and businesses.

**Genetic & General Dentistry**  
*Ornithic Certified Growing World Class Smiles*  
**NEW DENTAL IMPLANT TECHNOLOGY CAN MAKE YOU SMILE BIG AGAIN!**  
 If you choose to work with us, you will receive

**Eastern Municipal Water District**  
 2270 Trumble Road, P.O. Box 8300  
 Perris, CA 92572-8300

**Notice of Availability of a Draft Environmental Impact Report – Newspaper Ad**  
**Purified Water Replenishment Project**

To be published February 17, 2021

Eastern Municipal Water District (District) has prepared a Draft Environmental Impact Report (EIR) for the proposed Purified Water Replenishment Project (project) in accordance with the California Environmental Quality Act (CEQA).

**Public Review and Comments:** The District is soliciting comments from the public regarding the content of the Draft EIR. The Draft EIR will be used by the District Board of Directors when considering approval of the proposed project. Pursuant to Section 15254 of the CEQA Guidelines, in reviewing Draft EIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. The District has established a 45-day review period for this Draft EIR from Wednesday, February 17, 2021 to Friday, April 2, 2021, compliant with the requirement of Section 21081 of the Public Resources Code. Written comments on the Draft EIR should be sent to Joseph Broadhead, Principal water resource Specialist – CEQA Compliance, Eastern Municipal Water District, P.O. Box 8300/2270 Trumble Road, Perris, CA 92572 or [EMWD\\_comments@emwd.org](mailto:comments@emwd.org) by 5:00 p.m. on April 2, 2021. A contact name and return address or email address should be included with your comments.

**Document Availability:** The Draft EIR is available electronically at <http://www.emwd.org> public notices. Due to the current COVID-19 situation and limited operations of libraries in response to social distancing requirements, paper copies of the Draft EIR will not be available at local libraries. Paper copies of the Draft EIR can be made available for review at the District's office lobby upon request.

**Location of the Proposed Project:** The proposed project would occur at multiple locations predominantly within the city of San Jacinto, with one location just outside the eastern city limits in unincorporated Riverside County. The project's proposed aboveground facilities would be located adjacent to the northern boundary of the District's existing San Jacinto Valley Regional Water Reclamation Facility (SRWRRF) at 770 North Sanderson Avenue and at the District's existing Alessandro Pools site near the intersection of West Ramona Parkway and North Verano Avenue. The project has two belowground pipeline segments. One of the project's belowground pipelines, the advanced treated water pipeline, would follow an existing 18-inch pipeline with a new 16-inch pipeline following a route northeast from the SRWRRF to an unground well northeast along North Lynn Avenue, and southeast along Ramona Expressway, where it would turn off northeast to join the District's existing Alessandro Pools site. The project's second pipeline would convey blended advanced treated water and tertiary recycled water and run from near the Alessandro Pools site southeast along Ramona Expressway to the District's existing Mountain Avenue West Recharge Basin at the intersection of Ramona Expressway and East Escondido Court.

This page intentionally left blank

## Section II

---

### Comments Received on the Draft EIR and Responses

## II. COMMENTS RECEIVED ON THE DRAFT EIR AND RESPONSES

---

This section of the Final EIR presents the comment letters received on the Draft EIR during the 45-day public review period and responses to those comments. The letters were reviewed and divided into individual comments, with each comment containing a single theme, issue, or concern. Individual comments and the responses to the comments were assigned corresponding numbers. To aid readers, comments have been reproduced in this document together with corresponding responses in side-by-side format. Table II-1, *List of Comments Received During Public Review*, identifies the two comment letters received during public review of the Draft EIR.

**Table II-1**  
**LIST OF COMMENTS RECEIVED DURING PUBLIC REVIEW**

<b>Letter</b>	<b>Commenter</b>	<b>Date</b>
A	Rincon Band of Luiseño Indians	March 3, 2021
B	State Water Resources Control Board	March 24, 2021

# Rincon Band of Luiseño Indians

## CULTURAL RESOURCES DEPARTMENT

One Government Center Lane | Valley Center | CA 92082  
(760) 749-1051 | Fax: (760) 749-8901 | rincon-nsn.gov



March 3, 2021

Sent via email: EMWD comments@helixepi.com  
Eastern Municipal Water District  
Joseph Broadhead  
P.O. Box 8300  
Perris, CA 92572

Re: Purified Water Replenishment Project (SCH No. 2020049002)

Dear Mr. Broadhead,

This letter is written on behalf of the Rincon Band of Luiseño Indians ("Rincon Band" or "Band"), a federally recognized Indian Tribe and sovereign government. Thank you for providing us with the Notice of Availability of an Environmental Impact Report for the above referenced project. The identified location is within the Territory of the Luiseño people, and is also within Rincon's specific area of Historic interest.

A-1

The Rincon Band has reviewed the provided documents and we are in agreement with the measures, which include archaeological and tribal monitoring, a monitoring report, and protocols for discovery of cultural material and human remains. Please notify the Rincon Band of any changes in project plans. In addition, we request a copy of the final monitoring report, when available.

If you have additional questions or concerns, please do not hesitate to contact our office at your convenience at (760) 297-2635. Thank you for the opportunity to protect and preserve our cultural assets.

Sincerely,

Cheryl Madrigal  
Tribal Historic Preservation Officer  
Cultural Resources Manager

Bo Mazzetti  
Chairman

Tishmall Turner  
Vice Chair

Laurie E. Gonzalez  
Council Member

John Constantino  
Council Member

Joseph Linton  
Council Member

A-1

This comment notes that the identified project location is within the Territory of the Luiseño people and is also within Rincon's specific area of Historic interest. This comment also notes that the Rincon Band agree with the Project's cultural resources mitigation measures presented in the EIR. The District will notify the Rincon Band of any future changes in the project plans and will provide a copy of the final monitoring report, when available.



**State Water Resources Control Board**

Joe Broadhead  
 Eastern Municipal Water District  
 P.O. Box 8300 / 2270 Trumble Road  
 Perris, CA 92572

Dear Mr. Broadhead:

ENVIRONMENTAL IMPACT REPORT (EIR) FOR EASTERN MUNICIPAL WATER DISTRICT (DISTRICT); PURIFIED WATER REPLENISHMENT (PROJECT); RIVERSIDE COUNTY; STATE CLEARINGHOUSE NO. 2020049002

B-1 We understand that the District may be pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project. As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the EIR to be prepared for the Project.

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state.

The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "California Environmental Quality Act (CEQA)-Plus" environmental documentation and review. Three enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. For the complete environmental application package please visit: [http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/srf\\_forms.shtml](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml). The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to the State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkooli, at (916) 341-5855.

It is important to note that prior to a CWSRF financing commitment, projects that are subject to provisions of the Federal Endangered Species Act (ESA), must obtain Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) for any potential effects to special-status species.

Please be advised that the State Water Board will consult with the USFWS, and/or the NMFS regarding all federal special-status species that the Project has the potential to impact if the Project is to be financed by the CWSRF Program. The District will need to identify whether the Project will involve any

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | [www.waterboards.ca.gov](http://www.waterboards.ca.gov)



B-1 This comment provides information related to financing under the Clean Water State Revolving Fund (CWSRF). The District appreciates the information provided. If the District pursues CWSRF financing for the project, they will conduct the necessary environmental review and comply with applicable requirements.

Broadhead, EMWD

- 2 -

March 24, 2021

direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur in the Project site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106). The State Water Board has responsibility for ensuring compliance with Section 106, and must consult directly with the California State Historic Preservation Officer (SHPO). SHPO consultation is initiated when sufficient information is provided by the CWSRF applicant. If the District decides to pursue CWSRF financing, please retain a consultant that meets the Secretary of the Interior's Professional Qualifications Standards ([http://www.nps.gov/history/local-law/arch\\_stnds\\_9.htm](http://www.nps.gov/history/local-law/arch_stnds_9.htm)) to prepare a Section 106 compliance report.

B-1  
(cont.)

Note that the District will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should extend to a ½-mile beyond project APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

Other federal environmental requirements pertinent to the Project under the CWSRF Program include the following (for a complete list of all federal requirements please visit: [http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/docs/forms/application\\_environmental\\_package.pdf](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf)):

- A. An alternative analysis discussing environmental impacts of the Project in either the CEQA document (Negative Declaration, MND or Environmental Impact Report) or in a separate report.
- B. A public meeting or hearing for adoption/certification of all environmental documents, except for those with little to no environmental impacts.
- C. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections.
- D. Compliance with the Coastal Zone Management Act: Identify whether the Project is within a coastal zone and the status of any coordination with the California Coastal Commission.
- E. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE.
- F. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local and Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract.

COMMENTS

RESPONSES

Broadhead, EMWD

- 3 -

March 24, 2021

B-1 (cont.) G. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts.  
 H. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area.  
 I. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts.

B-2 Following are specific comments on the District's draft EIR:  
 1. If the brine management (rather than the brineline disposal method) alternative is selected for CWSRF financing, please contact Robert Hewitt, District Conservationist at the U.S. Department of Agriculture at (951) 654-7139 or by email at [Robert.Hewitt@ca.usda.gov](mailto:Robert.Hewitt@ca.usda.gov) to determine the mitigation required for farmland conversion. You may also contact the San Jacinto Resource Conservation District at (951) 654-7733.

B-3 2. Page 4.3-15 of the EIR indicates if temporary construction fencing and other BMPs are not properly implemented during construction, there would be a potential for...encroach[ment] into potential jurisdictional aquatic resources, locations of which are shown on Figure 4.3-2(a-i)." The associated mitigation measure for this potential water quality impact is MM-BIO-1 for biological resources, which should be referenced under the mitigations for hydrology and water quality in the MMRP.

B-4 3. The biological assessment identifies the San Bernardino kangaroo rat and the least Bell's vireo as species protected by the MSHCP in the Project area which also contains mapped critical habitat. Are the proposed launching and receiving pits for the trenchless pipeline installation also outside the range of any suitable habitat requiring additional species surveys to determine potential impacts? Although the District is not subject to the MSHCP, through consultation with the USFWS under Section 7 of the ESA, the State Water Board may require such mitigation as part of the funding agreement.

B-5 4. Please discuss the effects of the Project on surface water discharge compared with the current operation. How would keeping the recycled water/tertiary treated water within the service area for recharge be a more "environmental responsible manner" of using the water?

B-6 5. The Division of Financial Assistance has a cultural resources unit with staff that would be dedicated to assisting the District in our effort to comply with Section 106 of the NHPA throughout construction of the Project.

B-7 Please provide us with the following documents applicable to the proposed Project following the District's CEQA process: (1) one copy of the draft and final EIR, (2) the resolution certifying the EIR and making CEQA findings, (3) all comments received during the review period and the District's response to those comments, (4) the adopted Mitigation Monitoring and Reporting Program, and (5) the Notice of Determination filed with the Riverside County Clerk and the Governor's Office of Planning and Research, State Clearinghouse. We would appreciate notices of any hearings or meetings held regarding environmental review of any projects to be funded by the State Water Board.

B-8 Thank you for the opportunity to review the District's draft EIR. If you have any questions or concerns, please feel free to contact me at (916) (916) 341-6983, or by email at

B-2 This comment requests coordination with the U.S. Department of Agriculture on mitigation for farmland conversion. Please refer to Section 4.1, Agricultural and Forestry Resources, of the EIR for analysis of the project's potential impacts related to farmland conversion. As disclosed therein, the project's potential impacts related to farmland conversion were analyzed using the California Land Evaluation and Site Assessment (LESA) model. The results of the LESA model indicated that impacts related to the conversion of farmland to non-agricultural use from project implementation would be less than significant. Therefore, no mitigation is necessary.

B-3 This comment requests that mitigation measure MM-BIO-1 be referenced under Hydrology and Water Quality in the project's mitigation monitoring and reporting program. The primary purpose of mitigation measure MM-BIO-1 is to prevent inadvertent encroachment into sensitive biological resources during project construction. While mitigation measure MM-BIO-1 would involve the installation of silt fencing, which would likely aid in limiting pollutants entering surface waters, this mitigation measure is not required to achieve less than significant impacts to water quality (refer to Subsection 4.8.4.1 of the EIR); therefore, it is not listed under Hydrology and Water Quality in the project's mitigation monitoring and reporting program.

B-4 This comment is requesting more information regarding whether additional species surveys are warranted to determine potential impacts associated with the proposed launching and receiving pits for the trenchless pipeline installation. The comment also states that the State Water Board may require mitigation through consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act (ESA) pursuant to the funding agreement for the project.

COMMENTS

RESPONSES

Broadhead, EMWD

- 4 -

March 24, 2021

Cedric.Irving@waterboards.ca.gov, or contact Brian Cary at (916) 341-5855, or by email at Brian.Cary@waterboards.ca.gov.

Sincerely,

 Digitally signed by Cedric S. Irving  
Date: 2021.03.24 16:41:05  
Water 130700

Cedric Irving  
Environmental Scientist

Enclosures (3):

1. Clean Water State Revolving Fund Environmental Review Requirements
2. Quick Reference Guide to CEQA Requirements for State Revolving Fund Loans
3. Basic Criteria for Cultural Resources Reports

cc: State Clearinghouse  
(Re: SCH# 2020049002)  
P.O. Box 3044  
Sacramento, CA 95812-3044

bcc: Brian Cary, Division of Financial Assistance

B-4

(cont.)

The locations of the proposed launching and receiving pits are sited outside areas where sensitive species would occur. To ensure this will be the case during construction, MM-BIO-3 has been modified (as detailed below) to ensure the pits are located away from sensitive species/habitat. Avoidance measures (MM-BIO-1 through MM-BIO-4) will ensure that sensitive species are not impacted during project construction.

In response to this comment, the first sentence of MM-BIO-3 has been revised as follows:

*Trimming, grubbing, and clearing of vegetation shall be avoided during the general avian breeding season (January 15 to July 15 for raptors; February 15 to August 31 for other avian species) to the extent feasible and shall not occur within sensitive vegetation communities or suitable habitat for sensitive bird species.*

Regarding the State Water Board's potential requirements for mitigation through consultation with the USFWS, Section 6 of the Biological Technical Report provides a federal conformance analysis with respect to the ESA. The State Water Board is directed to the analysis provided in Section 6 of the Biological Technical Report to facilitate their ESA compliance determinations. As stated, no federally listed endangered (FE), threatened (FT), or candidate (FC) plant species are known or have the potential to occur in the vicinity of the project site. Further, none were observed during rare plant surveys completed for the project. Therefore, the project would have no effect on federally listed plant species. With respect to federally listed animals, the project site is situated mainly on field/pastures, disturbed land, and developed land. While the southeastern portion of the project site along the 36-inch pipeline occurs in an area designated by the USFWS as Critical Habitat for the federally listed species San Bernardino kangaroo rat, the project site does not contain the primary constituent elements, physical or biological features, or suitable habitat for the species, such as alluvial fan sage scrub with gravelly or sandy soils. The project action area is restricted to the disturbed and developed road right-of-way for Ramona Expressway where it overlaps with Critical Habitat.

### ENVIRONMENTAL REVIEW REQUIREMENTS

All applicants for SRF financing must thoroughly analyze the environmental consequences of their project. Applicants must comply with the California Environmental Quality Act (CEQA) and federal cross-cutting authorities as part of the SRF environmental review requirements. All SRF environmental review requirements must be met prior to the start of construction activities.

### CEQA

The environmental review process used to determine compliance with appropriate state and federal environmental regulations begins with successful completion of CEQA.

Typically, the applicant to the CEQA Lead Agency and must prepare and circulate an environmental document before approving a project. Only a public agency, such as a local, regional, or state government, may serve as the Lead Agency under CEQA. If a project will be completed by a non-governmental organization, Lead Agency responsibility goes to the first public agency providing discretionary approval for the project. In these instances, the State Water Board may serve as Lead Agency on behalf of the applicant.

Usually, the State Water Board is a CEQA Responsible Agency, making its own independent findings using information submitted by the Lead Agency or an approving funding for a project.

The applicant must provide the following project-specific environmental documents, associated reports, and other supporting materials demonstrating compliance with CEQA as part of the applicant's Environmental Package.

### FEDERAL CROSS-CUTTING AUTHORITIES

In addition to completing CEQA, the applicant must conduct the necessary studies and analyses and prepare documentation demonstrating that the proposed project is in compliance with the federal cross-cutting environmental authorities as the USFPA designated. Non-federal state agency representative resources are for consultation with appropriate federal agencies. The State Water Board staff will review materials for compliance with relevant cross-cutters. Staff may require additional studies or documentation to fulfill this obligation. The principal federal authorities that need addressing in the application are:

- Archaeological & Historic Preservation Act
- Clean Air Act
- Coastal Barrier Resources Act
- Capital Construction Act
- Endangered Species Act
- Environmental Justice Executive Order
- Farm and Forest on Policy Act
- Fish & Wildlife Conservation Act
- Flood Plain Management
- Magnuson-Stevens Fishery Conservation & Management Act
- Migratory Bird Treaty Act
- National Historic Preservation Act
- Protection of Wetlands
- Rivers & Harbors Act
- Safe Drinking Water Act, Safe Source Aquifer Protection
- Wild & Scenic Rivers Act

### OUR SRF PROGRAMS

The State Water Resources Control Board (State Water Board) administers the Clean Water and Drinking Water State Revolving Fund (SRF) Programs to support a wide range of infrastructure projects. The SRF Programs represent a powerful partnership between the State and the United States Environmental Protection Agency (USEPA), and provides partial program funding. The applicant will need to complete the Environmental Package, which comprises and transmits the necessary environmental documents and supporting information for State Water Board staff to review to determine compliance with state and federal environmental laws and regulations. SRF funds are available for planning and design, as well as construction activities.

### QUESTIONS

The consultation process can be lengthy, especially if the project is expected to affect or rely on cultural resources. Please contact your State Water Board Project Manager and/or Environmental Section staff early in the planning process to discuss what environmental information may be needed for your project.

### WEBSITE

[https://www.waterboards.ca.gov/water\\_issues/programs/grants\\_bonds/environmental\\_requirements.html](https://www.waterboards.ca.gov/water_issues/programs/grants_bonds/environmental_requirements.html)



CLEAN WATER & DRINKING WATER STATE REVOLVING FUND

ENVIRONMENTAL REVIEW REQUIREMENTS

STATE OF CALIFORNIA  
Water Resources Control Board  
Division of Financial Assistance

October 2018 (Revised)

Material in this brochure highlights key SRF environmental requirements

**B-4** (cont.)  
 Because that road right-of-way does not support the primary constituent elements, physical or biological features, or suitable habitat for the species, there would be no destruction or adverse modification to the Critical Habitat. Therefore, the proposed action would have no effect on Critical Habitat. As mentioned above, the project has been sited to occur over 500 feet from suitable habitat for the federally listed least Bell's vireo. No impacts or take of least Bell's vireo or suitable habitat for the species are proposed or anticipated. Although no effect is anticipated, MM-BIO-1 through MM BIO-3 include site protection, biological monitoring, and avoidance measures that would further ensure that no effect on these species occurs.

**B-5** This comment requests discussion on the effects of the project on surface water discharge compared with the current condition and asks how keeping the recycled water/tertiary treated water within the District's service area for recharge would be a more environmentally responsible use of water. Under current operations, the San Jacinto Valley Regional Water Reclamation Facility (SJVWRF) creates recycled water through a tertiary treatment process. This recycled water is regularly delivered to the region for non-potable reuse, including for irrigation of crops, golf courses, school fields, parks, and landscape medians. There are times that excess water is discharged to Temescal Creek when supplies exceed demand. However, it should be noted that the discharges to Temescal Creek are not part of a regularly scheduled discharge and is not tied to any environmental enhancement/restoration program. EMWD currently uses approximately 98 percent of the recycled water generated from the facility. EMWD's intent is to use 100 percent of the recycled water generated.

Upon implementation of the project, a portion of recycled water from the SJVWRF would be further treated at the AWTF and combined with other recycled water from the SJVWRF. The two types of water would be blended and then conveyed to the Mountain Avenue West Recharge Basin to eventually assist in the recharge of the San Jacinto Upper Pressure Management Zone (SJUPMZ).

FEDERAL CROSS-CUTTING AUTHORITIES THAT USUALLY REQUIRE ADDITIONAL STUDIES		KEY PROCEDURAL REQUIREMENTS	
<p><b>Clean Air Act (CAA)</b></p> <p>CAA requires federally funded projects to meet the General Conformity requirements and apply in areas where National Ambient Air Quality Standards are not met or in areas that are subject to a major source title.</p> <p>If project emissions below the federal "de minimis" level, then a General Conformity determination is not required.</p> <p>If project emissions are above the federal "de minimis" level, then a General Conformity determination must be made.</p> <p>An air quality modeling analysis may be needed regardless of the attainment status for the following constituents:</p> <ul style="list-style-type: none"> <li>• Ozone;</li> <li>• Carbon monoxide;</li> <li>• Nitros oxide;</li> <li>• Sulfur dioxide;</li> <li>• Lead; and</li> <li>• Particulate matter (PM2.5 and PM10).</li> </ul> <p>Commonly, applicants use the California Emissions Estimator Model (CalEEMod) to approximate project-related emissions. This model can be downloaded from: <a href="http://www.caleemod.com">www.caleemod.com</a>. A user's guide and Frequently Asked Questions document are available at this site as well. Applicants also may want to discuss project impacts with the local air district.</p>	<p><b>Endangered Species Act (ESA)</b></p> <p>ESA, Section 7, requires an assessment of the direct and indirect effects of the project on federally listed species and critical habitat. A biological resources assessment report is required and must include, but is not limited to:</p> <ul style="list-style-type: none"> <li>• Rare species and critical habitat lists generated from the US Fish and Wildlife Service's Information for Planning and Conservation on the database;</li> <li>• A search species list from the National Marine Fisheries Service, if appropriate;</li> <li>• A report of the California Department of Fish and Wildlife's Natural Diversity Database, including appropriate species occurrence information on site maps;</li> <li>• A field survey performed by a qualified biologist;</li> <li>• An evaluation (usually presented in table form) of the project's potential to affect federally listed species;</li> <li>• Species surveys, as appropriate;</li> <li>• Maps delineating the project area and species occurrence;</li> <li>• Identification of measures to minimize, avoid, or mitigate impacts;</li> <li>• An accommodation on an ESA determination (i.e., "no effect," "may affect, but not likely to adversely affect," or "may affect and is likely to adversely affect").</li> </ul> <p>The State Water Board staff will conduct an independent review of these materials to determine the potential effect of the project on federally listed species and will make a recommendation to USFWS on how to proceed under ESA, Section 7.</p>	<p><b>National Historic Preservation Act (NHPA)</b></p> <p>NHPA, Section 106, requires an analysis of the effects of the project for undertaking on "historic properties." Historic properties (i.e., prehistoric or historic districts, buildings, structures, objects, sites 50 years or older) are properties that are included in or eligible for inclusion in the National Register of Historic Places. A historic properties identification report (HPINR) must be prepared in accordance with Section 106 requirements by a qualified professional meeting the Secretary of the Interior's Standards in archeology or history.</p> <p>Specific requirements of the HPINR include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• The project description and a clearly defined area of potential effects (APE), specifying length, width, and depth of excavation, with a labeled map;</li> <li>• A record from on Center records search extending to half-mile beyond the project APE;</li> <li>• Background research (e.g., old USGS maps, ethnographic reports, historical records, etc.);</li> <li>• Documentation of outreach to the Native American Heritage Commission, appropriate tribes, historical societies, and interested parties;</li> <li>• Detailed description of survey methods and findings; and</li> <li>• Identification and evaluation of cultural resources within the APE.</li> </ul> <p>Cultural resources reports prepared for CEQA may be used, but often require more information.</p>	<p><b>Environmental Alternatives Analysis</b></p> <p>SEF regulations require that an exploration of the alternatives considered for the project and the rationale for selection of the chosen project alternatives be prepared and that through the CEQA process, impacts of each alternative. Known as the environmental alternatives analysis, this information can be included in the project engineering report, the CEQA document, or a technical memorandum. The environmental alternatives analysis must include the following:</p> <ul style="list-style-type: none"> <li>• Range of feasible alternatives, including a "no project" action alternative;</li> <li>• Comparative analysis among the alternatives that discusses direct, indirect, and cumulative, beneficial and adverse environmental impacts on the existing and future environment, as well as sensitive environmental issues; and</li> <li>• Acceptable mitigation measures to address impacts.</li> </ul> <p><b>Public Participation</b></p> <p>SEF regulations also require adequate opportunity for the public, responsible agencies, and trustee state agencies under CEQA to review and comment on the project. All projects, except those with little or no environmental impacts (namely, CEQA exempt projects), must hold a public hearing or meeting to approve the CEQA document. If the CEQA process includes public meeting opportunities, but other public meetings may be needed to meet the federal requirements, the applicant will be asked to provide the details of when such meetings will be held for the project as part of the environmental review.</p>

B-5

(cont.)

As discussed in Subsection 4.8.4.1 of the EIR, the surface water discharged by the project would be regulated by Title 22 Water Recycling Criteria, which are developed by the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW). A Preliminary Design Report was prepared for the proposed project that details how the project's proposed facilities would meet the Title 22 water quality requirements, in addition to other water quality requirements, including those set forth by the RWQCB in the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) for "maximum benefit" water quality objectives for the SJUPMZ.

Keeping recycled water within the District's service area is considered environmentally responsible because it maximizes water use efficiency within the District's service area. This has the potential to reduce the amount of imported water needed and therefore reduce the environmental effects associated with the import of water supplies, specifically effects related to energy use for water transport and associated greenhouse gas emissions.

B-6

This comment provides information on a cultural resources unit that could assist the District with compliance with Section 106 of the NHPA during project construction. The District appreciates the information on the cultural resources unit. The District will consult with the SWRCB, as necessary, for assistance in complying with Section 106 of the NHPA through construction of the project.

B-7

This comment requests that various environmental documents be provided to the SWRCB. The District will provide these documents to the SWRCB upon completion of the CEQA process.

B-8

This is a conclusory comment providing contact information should it be needed. The comment is noted for the record.

STATE WATER RESOURCES CONTROL BOARD,  
DIVISION OF FINANCIAL ASSISTANCE

## California Environmental Quality Act Requirements

The State Water Resources Control Board (State Water Board) Division of Financial Assistance (DFA) funds wastewater, recycled water, and drinking water infrastructure projects as well as water quality improvement projects using resources from various state grant programs. All applicants seeking grant funds must comply with the California Environmental Quality Act (CEQA) and provide appropriate documents to the State Water Board so that it can fulfill its CEQA responsibilities.

### LEAD AGENCY

The applicant is usually the **Lead Agency** and must prepare and circulate an environmental document before approving a project. Only a public agency, such as a local, regional or state government, may be the Lead Agency under CEQA. If a project will be completed by a non-governmental organization, Lead Agency responsibility goes to the first public agency providing discretionary approval for the project. In this situation, the State Water Board may serve as Lead Agency.

### RESPONSIBLE AGENCY

Typically, the State Water Board is a **Responsible Agency**. As a Responsible Agency, the State Water Board must make its own findings using information provided by the Lead Agency before funding a project.

### STATE WATER BOARD RESPONSIBILITIES

The State Water Board's mission is to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure their proper allocation and efficient use for the benefit of present and future generations. To fulfill this responsibility, and to carry out obligations as a Responsible Agency under CEQA, the State Water Board must consider the Lead Agency's environmental document before funding a project.

### ENVIRONMENTAL REVIEW

The State Water Board's environmental review process must be completed before the State Water Board can approve a project for funding and the project can begin construction.

### DOCUMENT REVIEW

The State Water Board would like to review CEQA documents as early as possible. Applicants are encouraged to consult with agency staff during development of CEQA documents if considering applying for funding from DFA. Potential applicants should consider sending their environmental documents to DFA, Environmental Section during the CEQA public review period. This way, any environmental concerns the State Water Board has about the project can be addressed early in the process.

### REQUIRED DOCUMENTS

The Environmental Section within DFA requires the documents listed below to complete the environmental review.

- Draft and Final Environmental Documents** – Environmental Impact Reports, Negative Declarations, Mitigated Negative Declarations, Notice of Exemptions, as appropriate for the project;
- All comments** – that were received during the public review period and the Lead Agency's responses to those comments;
- Adopted Mitigation Monitoring and Reporting Plan** – this is separate from, and in addition to, the identification of mitigation measures in the CEQA document;

**4 Resolution/Minutes** – these document that the applicant adopted or certified the CEQA document, made CEQA findings, and approved the project;

**5 Date-stamped copy of the Notice of Determination or Notice of Exemption** – these result after filing of the document with the County Clerk and the Governor's Office of Planning and Research; and

**6 Completed Environmental Package** – this is a component of the Funding Application.

Once the State Water Board receives all the required documents and determines them to be adequate to make its own findings, the environmental review for the funding application will be completed.

### CONTACT INFORMATION

For more information about the State Water Board's environmental review process, please visit our website: [https://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/environmental\\_requirements.html](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/environmental_requirements.html)



GUIDELINES FOR APPLICANTS AND THEIR CONSULTANTS ON PREPARING  
HISTORIC PROPERTY IDENTIFICATION REPORTS FOR THE CLEAN AND  
DRINKING WATER STATE REVOLVING FUND (SRF) PROGRAMS

All applicants seeking Clean Water or Drinking Water SRF financing for construction projects from the State Water Resources Control Board (State Water Board), Division of Financial Assistance (DFA), must comply with both California Environmental Quality Act (CEQA) and the federal cross-cutting regulations. CEQA requires public agencies to assess the impacts of their projects on historical resources. In addition to CEQA, Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (Section 106), requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. (Tip: "undertaking" is a NHPA term equivalent to "project" in CEQA). A historic property is a prehistoric or historic district, site, building, structure, or object that is eligible for or listed on the National Register of Historic Places (NRHP).

The State Water Board administers the SRF Programs. The SRF Programs are partially funded by annual capitalization grants from the United States Environmental Protection Agency (USEPA). Issuance of SRF funds by the State Water Board is considered equivalent to a federal action, thereby necessitating compliance with Section 106. The USEPA has delegated lead agency responsibility to the State Water Board for carrying out the requirements of Section 106.

The State Water Board requires the applicant to provide a complete environmental package with their financial assistance application. The Historic Property Identification Report (HPIR) is key to showing a reasonable and good faith effort was made to identify historic properties. The State Water Board uses this report to make NRHP eligibility determinations and to support the State Water Board's finding of effect for the undertaking. Documentation of concluded consultation with the State Historic Preservation Officer (SHPO) is required to illustrate compliance with NHPA. The HPIR is part of the State Water Board's submittal to the SHPO.

#### SHPO CONSULTATION

The State Water Board is responsible for SHPO consultation. Submit two hard copies of the final HPIR to the State Water Board. One hard copy of the report will be submitted to the SHPO as part of the State Water Board's consultation package and one will be kept on file.

#### BEFORE HIRING A CULTURAL RESOURCES CONSULTANT

If you think your project is the type of activity that does not have the potential to cause effects on historic properties, contact DFA, Senior Cultural Resources Officer (CRO)

before contracting a cultural resources consultant. This decision is based on the nature of the undertaking, not on the presence or absence of cultural resources. If the State Water Board determines the undertaking does not have the potential to cause effects, no further study is required. Projects like this would likely involve no ground disturbance, no modification of buildings, and be exempt under CEQA (e.g. replacing standard meters with AMR meters or re-coating tank interiors).

If the CRO determines that the undertaking is a type of activity that has the potential to cause effects, an HPIR will be required, even if the project is exempt from CEQA. Many applicants may have already had a cultural resources report completed for CEQA compliance. Those reports may be used to partially fulfill the requirements of Section 106. Be aware that cultural resources reports written for CEQA assessments often need to be revised or supplemented with additional information to meet NHPA requirements, especially when resources are present in the project footprint (called the area of potential effects [APE] in NHPA).

#### PROFESSIONAL QUALIFICATION STANDARDS

The HPIR must be prepared by a Principal Investigator(s) who meets the Secretary of the Interior's Standards for Professional Qualifications (SIPQS; 62 FR 33708-33723) in the discipline most relevant to the resource types likely to be in the study area. For example, if the undertaking is located in a city center, a qualified architectural historian may be most appropriate. On the other hand, if an undertaking is located in an area that may have Native American archaeological sites, a qualified archaeologist should be employed. Some undertakings may require more than one expertise. The SIPQS is available at <https://www.gpo.gov/fdsys/pkg/FR-1997-06-20/pdf/97-16168.pdf>.

The report must be attributed to an author and the author must summarize their SIPQS in the report. It is important to note that a graduate degree in the appropriate field and a year full-time experience as a supervisor is required (62 FR 33708-33723). Using unqualified personnel for fieldwork is not acceptable unless accompanied in the field by a SIPQS supervisor.

#### HISTORIC PROPERTIES IDENTIFICATION REPORT CONTENTS

To comply with NHPA and assist applicants and their consultants, the DFA has prepared these guidelines to help expedite the review and consultation process. Reports not meeting these guidelines will delay the environmental review process.

The HPIR should be a stand-alone document that includes all supporting documentation in the appendices. If the applicant is using information from more than one cultural report, there should be an accompanying explanation of how they relate. A new map showing the APE with resources from all the reports may need to be produced to tie it all together as one submittal.

The State Water Board is responsible for the finding of effect. The HPIR only needs to identify historic properties.

The following is an outline of topics that should be included in the HPIR:

**Summary of Findings** – This is a succinct synopsis of the report findings, located before the Table of Contents. It is an abstract of the report.

**Table of Contents and Table and Figure lists**- This allows the reviewer to quickly find information they seek and helps speed up the review process.

**Undertaking Description** – The undertaking description should include the basic purpose and need and a description and location of the work. It does not need to have technical specifications.

**Undertaking Vicinity Map** – A map showing the undertaking vicinity or an inset map showing the undertaking location in relation to cities and known landmarks should be included in the report.

**Area of Potential Effects** – The APE must be described in both horizontal and vertical terms (belowground and aboveground elevation) and should include all components of the undertaking that have the potential to effect cultural resources, such as, construction footprint, staging areas, borrow areas, spoils locations, utility tie-ins, new access roads, vibrations, and visual effects, if applicable. The APE can be contiguous or discontinuous (Tip: If the undertaking is in the early design phase and the exact footprint isn't known, you should start by delineating a "study area", the largest area where work may be done. It is more time efficient to scale a study area down to an APE rather than to add new areas later.)

NOTE – When the APE crosses a historic property, the entire property should be included in the APE, because if part of the property is affected, all of the property, either directly or indirectly, is also affected. See OHP guidance on the APE [http://ohp.parks.ca.gov/pages/1071/files/106Checklist\\_2018\\_Apr.pdf](http://ohp.parks.ca.gov/pages/1071/files/106Checklist_2018_Apr.pdf).

**APE Map(s)** – The APE map is one of the most important pieces of the HPIR. Provide a map showing the whole APE in an appropriate scale. If there are resources in or near the APE, the APE map should also show all identified resources from both the records search and the survey. The APE and resources should be depicted on one map and additional detail maps may be appropriate when there are resources in or adjacent to the APE. APE detail maps should be depicted at a more detailed scale on an aerial background clearly labeled with APE elements, primary numbers, and street names if appropriate. The entire APE doesn't need to be depicted that way, only the areas that are in or close to resources. At a minimum, maps must have a north arrow, scale bar, scale text, legend, figure number, and title. Resources should also be labeled. Maps produced in GIS are highly encouraged as are digital record search results.

**Natural and Cultural Context** – A discussion of the undertaking’s prehistoric and historic context should be proportionate to the resources identified. Context aids in identification and is also necessary for evaluation. Provide context that is applicable to the study area and resources identified.

**Literature Review** – At a minimum, the literature review should include a records search from the appropriate regional Information Center of the California Historical Resources Information System with GIS maps of resources and reports (Hand-drawn records search maps are strongly discouraged). Pre-field research should also include a review of historic-era maps (e.g. General Land Office Survey Plats, USGS topographic quadrangles, Rancho maps, Sanborn Fire Maps, official county maps etc. as appropriate).

**Tribal and Additional Consulting Party Coordination** – Contact the Native American Heritage Commission and request a Sacred Lands File search of the study area or APE and a Native American contact list. Send letters to the tribes and other interested parties, such as local historical societies, with the undertaking description, map, and contact information. Use the State Water Board provided Applicant 106 Template [https://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/docs/nahc\\_letter\\_template\\_tribal\\_info.docx](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/docs/nahc_letter_template_tribal_info.docx)) for tribal notification letters if possible. Follow-up all letters with a phone call or email to make sure the parties received the information and to answer questions and receive comments. Document all correspondence in a tracking table, like the one provided on our website, and include all correspondence in an appendix to the report. Lack of responses must also be documented.

**Field Inspection Methods and Results**– Tailor the field methodology to the APE conditions and kinds of resources that may be present. Describe the ground visibility, kind of survey, and transect intervals if used. If only part of the APE was surveyed either provide a map of the portion that was surveyed or describe it accurately enough for someone else to map it. Document all potential historic properties on the appropriate Department of Parks Recreation 523 forms.

**NRHP Eligibility**– Evaluate all prehistoric and historic-era sites, districts, buildings, structures, objects, and sites of religious and cultural significance in the APE that are 50 years old or older, that have not already had a consensus determination and are potentially significant for the NRHP. A cultural resource is a prehistoric or historic district, site, structure, or object that is at least 50 years old, regardless of historical significance. To qualify as a historic property, it must meet at least one of the four eligibility criteria listed in 36 CFR Section 60.4 and retain sufficient integrity. <https://www.nps.gov/nr/publications/bulletins/nrb15/>

Evaluations by qualified individuals in the appropriate fields must address each of the four criteria for each resource. If one of the criteria or more apply, the seven characteristics of integrity should also be discussed. A concise and rational argument for or against eligibility must be made for each resource. Recommendations without justification or an appropriate level of research are not acceptable.

NOTE: You must evaluate the entire resource, even if only a part of it is in the APE. If that is not feasible for reasons including, lack of access to private property or the scope of the resource is outside the scope of the undertaking, estimated boundaries may be used to set reasonable limits. Boundaries should be based on historic maps or other documentation, and the reasoning behind the estimations explained. Discuss possible solutions with the CRO.

**Appendices – Records Search Appendix:** All records search data should be provided, including record search letter, maps of previously recorded resources and surveys, all site records from the record search that are in or adjacent to the APE, and Office of Historic Preservation Archaeological Determinations of Eligibility and Historic Properties Directory printouts. **Tribal Outreach Appendix:** Include the NAHC Sacred Lands File Search request and NAHC response, letters to and from tribes, copies of email responses from tribes, and a communications log detailing all correspondence including follow-up phone calls.

#### PRECAUTIONS

The following are common areas where cultural resources reports prepared for CEQA fall short of what is required under Section 106.

- A potential historic property is identified in the APE, but not evaluated. A cultural resource is not a historic property until it has been evaluated and found to be historically significant. If a resource is evaluated, it must also be documented on DPR forms.
- Evaluating a portion of a site or district is not acceptable. If an undertaking affects part of a historic property, it affects the whole property. The whole property must be evaluated. There are a few exceptions. If evaluation of a large property isn't feasible, discuss with the CRO.
- The APE is deemed "highly sensitive for buried archaeological sites" and monitoring is recommended as a mitigation. If the APE is highly sensitive for buried sites, additional analysis including sub-surface testing will likely be required. Monitoring may not be used as a substitute for thorough identification efforts.

- “The area has already been disturbed by previous construction” is not a sufficient basis for a “No historic properties affected” recommendation. Disturbance may affect the integrity of a portion of a site, but it doesn’t mean the whole site has been destroyed or is not eligible for the NRHP. Documentation is still required to demonstrate that the proposed undertaking will not affect historic properties or other sensitive resources, such as human remains.
- Recommendations are made for Inadvertent discovery procedures pursuant to CEQA instead of Section 106 post-review discovery procedures (See 36 CFR Section 800.13[b]).

### CONFIDENTIALITY

HPIRs often contain confidential information about the location of archaeological sites. The Applicant or their consultant must provide the confidential version of the report to the State Water Board. Please do not upload confidential HPIRs to the State Water Board Financial Assistance Applications Submittal Tool (FAAST). Instead, send HPIRs directly to one of the cultural resources staff listed below that work in the Division of Financial Assistance. Hard copies can be mailed to State Water Resources Control Board, Division of Financial Assistance (Attn: <insert name>) P.O. Box 100 Sacramento CA 95812-0100.

•Wendy Pierce, Senior Environmental Scientist, at (916) 449-5178, or [Wendy.Pierce@Waterboards.ca.gov](mailto:Wendy.Pierce@Waterboards.ca.gov)

•Lisa Machado, Senior Cultural Resources Officer (Senior Environmental Planner) at (916) 323-0626, or [Lisa.Machado@Waterboards.ca.gov](mailto:Lisa.Machado@Waterboards.ca.gov)

## Section III

---

### Mitigation Monitoring and Reporting Program

## **MITIGATION MONITORING AND REPORTING PROGRAM PURIFIED WATER REPLENISHMENT PROJECT**

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document which includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a reporting or monitoring program. This requirement ensures that environmental impacts found to be significant will be mitigated. The reporting or monitoring program must be designed to ensure compliance during project implementation (Public Resources Code Section 21081.6).

In compliance with Public Resources Code Section 21081.6, the following Mitigation Monitoring and Reporting Checklist has been prepared for the Purified Water Replenishment Project. This Mitigation Monitoring and Reporting Checklist is intended to provide verification that applicable Conditions of Approval relative to significant environmental impacts are monitored and reported. Monitoring will include: (1) verification that each mitigation measure has been implemented; (2) recordation of the actions taken to implement each mitigation measure; and (3) retention of records in the Purified Water Replenishment project file.

This Mitigation Monitoring and Reporting Program delineates responsibilities for monitoring the Program, but also allows Eastern Municipal Water District (District) flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. Adequate monitoring consists of demonstrating that monitoring procedures took place and that mitigation measures were implemented.

Reporting consists of establishing a record that a mitigation measure is being implemented and generally involves the following steps:

- The District distributes reporting forms to the appropriate persons for verification of compliance.
- Departments/agencies with reporting responsibilities will review the Environmental Impact Report (EIR), which provides background information on the reasons for including specified mitigation measures.
- Problems or exceptions to compliance will be addressed to the District as appropriate.
- Periodic meetings may be held during project implementation to report on compliance of mitigation measures.
- Responsible parties provide the District with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented. Monitoring compliance may be documented through existing review and approval programs such as field inspection reports and plan review.
- The District prepares a reporting form periodically during the construction phase and an annual report summarizing project mitigation monitoring efforts.

Appropriate mitigation measures will be included in construction documents and/or conditions of permits/approvals.

Minor changes to the Mitigation Monitoring and Reporting Program, if required, would be made in accordance with CEQA and would be permitted after further review and approval by the District. Such changes could include reassignment of monitoring and reporting responsibilities, program redesign to make any appropriate improvements, and/or modification, substitution, or deletion of mitigation measures subject to conditions described in CEQA Guidelines Section 15162. No change will be permitted unless the Mitigation Monitoring and Reporting Program continues to satisfy the requirements of Public Resources Code Section 21081.6.

**MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST  
PURIFIED WATER REPLENISHMENT PROJECT**

<b>Standard Construction Practice/Design Feature</b>	<b>Monitoring Process</b>	<b>Monitoring Timing</b>	<b>Monitoring Responsibility</b>	<b>Date Completed</b>
<b><i>Air Quality</i></b>				
Standard dust control measures shall be implemented in accordance with South Coast Air Quality Management District (SCAQMD) Rule 403, such as watering two times daily during excavation.	Site Inspection	During Construction	Construction Contractor, Field Engineer (F.E.) Inspector	Date: _____
The District shall obtain a Permit to Construct and a Permit to Operate from the SCAQMD.	Permitting	Prior to Construction	Project Manager, F.E. Inspector	Date: _____
<b><i>Hydrology and Water Quality</i></b>				
A Stormwater Pollution Prevention Plan (SWPPP) shall be implemented in accordance with the State Water Resources Control Board's Construction General Permit (CGP) for stormwater discharges associated with construction activities. The SWPPP shall include erosion and sedimentation control measures to minimize on-site erosion and off-site transportation of eroded materials.	Site Inspection	During Construction	Construction Contractor, F.E. Inspector	Date: _____
The District shall obtain a Riverside County Flood Control and Water Conservation District Encroachment Permit for the construction activities to occur within Riverside County Flood Control and Water Conservation District right-of-way.	Permitting	Prior to Construction	Project Manager, F.E. Inspector	Date: _____
If groundwater disposal during construction is necessary, the contractor shall comply with Santa Ana Regional Water Quality Control Board Order No. R8-2020-0006, NPDES No. CAG998001, General Waste Discharge Requirements for Insignificant Threat Discharges to Surface Waters.	Permitting	Prior to Discharge	Construction Contractor, F.E. Inspector	Date: _____
<b><i>Land Use and Planning</i></b>				
The District shall obtain temporary easements for construction activities to occur with private property.	Permitting	Prior to Construction	Construction Contractor, F.E. Inspector	Permitting
<b><i>Traffic</i></b>				
The District shall obtain a City of San Jacinto Public Works Department Encroachment and Excavation Permit for construction activities to occur within City of San Jacinto right-of-way.	Permitting	Prior to Construction	Project Manager, F.E. Inspector	Date: _____
The District shall obtain a County of Riverside Transportation Department Encroachment and Excavation Permit for construction activities to occur within County of Riverside right-of-way.	Permitting	Prior to Construction	Project Manager, F.E. Inspector	Date: _____

**MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST  
PURIFIED WATER REPLENISHMENT PROJECT**

Standard Construction Practice/Design Feature	Monitoring Process	Monitoring Timing	Monitoring Responsibility	Date Completed
<i><b>Traffic (cont.)</b></i>				
The District shall obtain a California Department of Transportation (Caltrans) Encroachment Permit for construction activities to occur within the Caltrans right-of-way.	Permitting	Prior to Construction	Project Manager, F.E. Inspector	Date: _____
Mitigation Measure	Monitoring Process	Monitoring Timing	Monitoring Responsibility	Date Completed
<i><b>Biological Resources</b></i>				
<b>MM-BIO-1, Temporary Construction Fencing.</b> Prior to construction, to help ensure inadvertent impacts to environmentally sensitive areas outside of the approved impact footprint are avoided, temporary construction fencing, including silt fencing, as appropriate and where determined necessary by the SWPPP, shall be installed at the edges of the approved impact limits for the project. Temporary fencing shall be installed at locations where the project components occur adjacent to resources depicted on Figure 4.3-1, <i>Vegetation and Sensitive Resources/Land Use Impacts</i> , and Figure 4.3-2, <i>Aquatic Resources Avoidance</i> , in addition to locations at the proposed Alessandro Blending Facility and the proposed 36-inch pipeline trenching along Ramona Expressway, from Vernon Avenue to Old Mountain Avenue. A qualified biologist shall be retained to monitor the installation of the temporary construction fencing wherever it would abut environmentally sensitive areas. Construction activities shall be restricted to areas within the approved impact limits at all times during construction.	Installation of Construction Fencing	Prior to and During Construction	Construction Contractor, F.E. Inspector, Qualified Biologist	Date: _____
<b>MM-BIO-2, Biological Monitoring.</b> A qualified biologist will conduct a pre-construction environmental training session for construction personnel to inform them of the sensitive biological resources in the local area and the avoidance measures in place to remain in compliance. The biologist will periodically monitor construction activities where temporary construction fencing has been installed in accordance with mitigation measure MM-BIO-1.	Biological monitoring	Prior to and During Construction	Construction Contractor, F.E. Inspector, Qualified Biologist	Date: _____
<b>MM-BIO-3, Nesting Bird and Raptor Avoidance.</b> Trimming, grubbing, and clearing of vegetation shall be avoided during the general avian breeding season (January 15 to July 15 for raptors; February 15 to August 31 for other avian species) to the extent feasible and shall not occur within sensitive vegetation communities or suitable habitat for sensitive bird species. If trimming, grubbing, or clearing of vegetation is proposed to occur during the general avian breeding season, a pre-construction survey shall be conducted by a qualified biologist no more than 7 days prior to vegetation clearing to determine if active bird nests are present in the	Pre-construction Survey	Prior to Construction	Qualified Biologist, Project Manager	Date: _____

**MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST  
PURIFIED WATER REPLENISHMENT PROJECT**

Standard Construction Practice/Design Feature	Monitoring Process	Monitoring Timing	Monitoring Responsibility	Date Completed
<i>Biological Resources (cont.)</i>				
<p><b>MM-BIO-3 (cont.)</b> affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, trimming, grubbing, and clearing of vegetation shall be allowed to proceed. If active bird nests are confirmed to be present during the pre-construction survey, a buffer zone will be established by the biologist. Construction activities shall avoid any active nests until a qualified biologist has verified that the young have fledged, or the nest has otherwise become inactive.</p>				
<p><b>MM-BIO-4, Burrowing Owl Pre-Construction Take Avoidance Survey.</b> Prior to construction, the District shall retain a qualified biologist to conduct required pre-construction take avoidance surveys for the burrowing owl in accordance with the protocol described in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). The initial take avoidance survey shall occur no less than 14 days prior to initiating ground-disturbing activities, with a final survey conducted within 24 hours prior to initiating ground disturbing activities. If, after the initial take avoidance survey, no suitable burrowing owl habitat, including burrows, is present, then the second survey 24 hours prior to ground disturbance would not be required. If no active burrowing owl burrows (nesting sites) are identified within the potential impact area of the project during the take avoidance surveys, then no additional action would be required. If active burrowing owl burrows are identified within the potential impact area, the project shall avoid disturbing active burrowing owl burrows (nesting sites) and burrowing owl individuals. Buffers shall be established around occupied burrows in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) based on the proposed level of disturbance. For low disturbance projects, initial setback distances for avoidance of active burrows shall be 200 meters (approximately 656 feet) from April 1 to October 15 and 50 meters (approximately 164 feet) from October 16 to March 31. Exceptions can be made to the avoidance distance for areas with natural (hills, trees) or artificial (buildings, walls) barriers in place. The final avoidance buffer shall be at the discretion of the biologist. If, after consideration of a reduced buffer, an adequate avoidance buffer cannot be provided between an occupied burrow and required ground-disturbing activities, then passive relocation activities during the non-breeding season (September 1 through January 31) may be authorized in consultation with CDFW, which would include preparation, approval, and implementation of a Burrowing Owl Exclusion Plan in accordance with protocol</p>	Pre-construction Survey	Prior to Construction	Qualified Biologist, Project Manager	Date: _____

**MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST  
PURIFIED WATER REPLENISHMENT PROJECT**

Standard Construction Practice/Design Feature	Monitoring Process	Monitoring Timing	Monitoring Responsibility	Date Completed
<b>Biological Resources (cont.)</b>				
described in the CDFW Staff Report on Burrowing Owl Mitigation.				
<b>Cultural Resources</b>				
<b>MM-CUL-1, Cultural Resources Treatment and Monitoring Agreement.</b> At least 30 days prior to the start of ground-disturbing activities, the District shall contact the Consulting Tribe(s) to develop Cultural Resource Treatment Monitoring Agreement(s) (“Agreement”). The Agreement(s) shall address the treatment of archaeological resources inadvertently discovered on the project site; project grading; ground disturbance and development scheduling; the designation, responsibilities, and participation of tribal monitor(s) during grading, excavation, and ground-disturbing activities; and compensation for the tribal monitors, including overtime, weekend rates, and mileage reimbursements.	Develop a Monitoring Agreement	Prior to Construction	Project Manager, Tribal Monitor(s)	Date: _____
<b>MM-CUL-2, Develop a Cultural Resources Monitoring Plan.</b> Prior to grading activities, a Cultural Resources Monitoring Plan shall be prepared by a qualified archaeologist in consultation with the Consulting Tribe(s). The plan shall also identify the location and timing of cultural resources monitoring. The plan shall contain an allowance that the qualified archaeologist, based on observations of subsurface soil stratigraphy or other factors during initial grading, and in consultation with the Native American monitor and the lead agency, may reduce or discontinue monitoring as warranted if the archaeologist determines that the possibility of encountering archaeological deposits is low. The plan shall outline the appropriate measures to be followed in the event of unanticipated discovery of cultural resources during project implementation (including during the survey to occur following vegetation removal and monitoring during ground-disturbing activities). The plan shall identify avoidance as the preferred manner of mitigating impacts to cultural resources. The plan shall establish the criteria utilized to evaluate the historic significance (per CEQA) of the discoveries, methods of avoidance consistent with <i>CEQA Guidelines</i> Section 15126.4(b)(3), as well as identify the appropriate data recovery methods and procedures to mitigate the effect of the project if avoidance of significant historical or unique archaeological resources is determined to be infeasible. The plan shall also include reporting of monitoring results within a timely manner, disposition of artifacts, curation of data, and dissemination of reports to local and state repositories, libraries, and interested professionals. A qualified archaeologist and Consulting Tribe(s) tribal monitor shall attend a pre-grade meeting with District staff, the contractor, and appropriate subcontractors to discuss the monitoring program, including protocols to be followed in the event that cultural material is encountered.	Develop a Monitoring Plan	Prior to Construction	Project Manager, Qualified Archaeologist, Tribal Monitor(s)	Date: _____

**MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST  
PURIFIED WATER REPLENISHMENT PROJECT**

Standard Construction Practice/Design Feature	Monitoring Process	Monitoring Timing	Monitoring Responsibility	Date Completed
<i><b>Cultural Resources (cont.)</b></i>				
<p><b>MM-CUL-3, Tribal Monitoring Agreements.</b> A qualified archaeological monitor and a Consulting Tribe(s) monitor shall be present for ground-disturbing activities associated with the Project, and both the project archaeologist and Tribal Monitor(s) will make a determination as to the areas with a potential for encountering cultural material. At least seven business days prior to project grading, the District shall contact the tribal monitors to notify the Tribe of grading/ excavation and the monitoring program/schedule, and to coordinate with the Tribe on the monitoring work schedule. Both the archaeologist and the tribal monitor shall have the authority to stop and redirect grading activities in order to evaluate the nature and significance of any archaeological resources discovered within the project limits. Such evaluation shall include culturally appropriate temporary and permanent treatment pursuant to the Cultural Resources Treatment and Monitoring Agreement, which may include avoidance of cultural resources, in-place preservation, data recovery, and/or reburial so the resources are not subject to further disturbance in perpetuity. Any reburial shall occur at a location predetermined between the District and the Consulting Tribe(s), details of which shall be addressed in the Cultural Resources Treatment and Monitoring Agreement in MM-CUL-1. Treatment may also include curation of the cultural resources at a tribal curation facility, as determined in discussion among the District, the project archaeologist, and the tribal representatives and addressed in the Cultural Resources Treatment and Monitoring Agreement referenced in MM-CUL-1.</p>	Archaeological Monitoring	During Construction	Project Manager, F.E. Inspector, Qualified Archaeologist, Tribal Monitor(s)	Date: _____
<p><b>MM-CUL-4, Evaluation of Discovered Artifacts.</b> All artifacts discovered at the development site shall be inventoried and analyzed by the project archaeologist and tribal monitor(s). A monitoring report will be prepared, detailing the methods and results of the monitoring program, as well as the disposition of any cultural material encountered. If no cultural material is encountered, a brief letter report will be sufficient to document monitoring activities.</p>	Proper Assessment and Documentation of Cultural Resource(s)	During Construction	Project Manager, Qualified Archaeologist, Tribal Monitor(s)	Date: _____
<p><b>MM-CUL-5, Disposition of Inadvertent Discoveries.</b> In the event that Native American cultural resources are recovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries with the tribe. The District shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources, and adhere to the following:</p>	Proper Treatment and Disposition of Cultural Resources(s)	During Construction	Project Manager, Qualified Archaeologist, Tribal Monitor(s)	Date: _____

**MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST  
PURIFIED WATER REPLENISHMENT PROJECT**

Standard Construction Practice/Design Feature	Monitoring Process	Monitoring Timing	Monitoring Responsibility	Date Completed
<b>Cultural Resources (cont.)</b>				
<p>1. Preservation-in-place is the preferred option; preservation-in-place means avoiding the resources and leaving them in the place where they were found with no development affecting the integrity of the resource.</p> <p>2. If preservation-in-place is not feasible, on-site reburial of the discovered items as detailed in the Monitoring Plan required pursuant to MM-CUL-2 is the next preferable treatment measure. This shall include measures and provisions to protect the future reburial area from future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments.</p> <p>3. In the event that on-site reburial is not feasible, the District shall enter into a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 Code of Federal Regulations 800 Part 79 and therefore would be curated and made available to other archaeologists/ researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.</p>				
<p><b>MM-CUL-6, Non-Disclosure of Reburial Locations.</b> It is understood by all parties that unless otherwise required by law, the site of any reburial of culturally sensitive resources shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254(r), parties, and Lead Agencies will be asked to withhold public disclosure information related to such reburial.</p>	Non-disclosure of Resource Reburials	During and After Construction	Project Manager, Riverside County Coroner	Date: _____
<p><b>MM-CUL-7, Procedure to Address Inadvertent Disturbance of Human Remains.</b> If Native American human remains are encountered, PRC Section 5097.98 and California Health and Safety Code Section 7050.5 will be followed. If human remains are encountered no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California PRC Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native</p>	Proper Assessment, Treatment, and Disposition of Human Remains	During Construction	Project Manager, F.E. Inspector, Construction Contractor, Riverside County Coroner	Date: _____

**MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST  
PURIFIED WATER REPLENISHMENT PROJECT**

Standard Construction Practice/Design Feature	Monitoring Process	Monitoring Timing	Monitoring Responsibility	Date Completed
<b><i>Cultural Resources (cont.)</i></b>				
American, the coroner shall contact the NAHC within 24 hours. Subsequently, the NAHC shall identify the person or persons it believes to be the “most likely descendant.” The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in PRC Section 5097.98.				
<b><i>Geology and Soils</i></b>				
<p><b>MM-GEO-1, Paleontological Resources Mitigation and Monitoring Plan.</b> A Paleontological Resources Mitigation and Monitoring Plan shall be prepared prior to commencing construction activities that would exceed four feet in depth that could directly affect geologic formations with high paleontological resource sensitivity. A qualified paleontologist shall be retained to carry out and manage the plan. Fieldwork may be carried out by a qualified paleontological monitor working under the direction of the paleontologist.</p> <p>Components of the Paleontological Resources Mitigation and Monitoring Plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• The paleontologist shall attend all pre-grading meetings to inform the grading and excavation contractors of the paleontological resource mitigation program and shall consult with them with respect to its implementation.</li> <li>• The paleontological monitor shall be on site at all times during the original cutting of previously undisturbed sediments of high resource sensitivity formation at a subsurface depth of four feet or greater to inspect cuts for contained fossils.</li> <li>• If fossils are discovered, the paleontologist or monitor shall recover them. In instances where recovery requires an extended salvage time, the paleontologist or monitor shall be allowed to temporarily direct, divert, or halt ground-disturbing activities to allow recovery of fossil remains in a timely manner. Where deemed appropriate by the paleontologist or monitor, a screen-washing operation for small fossil remains shall be set up.</li> </ul>	Proper Assessment, Treatment, and Disposition of Paleontological Resources	During Construction	Project Manager, F.E. Inspector, Construction Contractor, Qualified Paleontologist	Date: _____

**MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST  
PURIFIED WATER REPLENISHMENT PROJECT**

Standard Construction Practice/Design Feature	Monitoring Process	Monitoring Timing	Monitoring Responsibility	Date Completed
<b>Geology and Soils (cont.)</b>				
<ul style="list-style-type: none"> <li>• <b>Recovered</b> fossils, along with copies of pertinent field notes, photographs, and maps, shall be deposited in a scientific institution with paleontological collections. A final summary report that outlines the results of the mitigation program shall be completed. This report shall include discussion of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.</li> </ul>				
<b>Noise</b>				
<b>MM-NOI-1, Construction Noise Hours.</b> Construction activities in the City of San Jacinto within the construction noise time restriction areas depicted on Figure 4.9-1, <i>Construction Noise Time Restriction Areas</i> , shall occur only on weekdays and Saturdays between the hours of 7:00 a.m. and 7:00 p.m.	Construction Noise Hour Restrictions	During Construction	Project Manager, Construction Contractor	Date: _____
<b>Transportation</b>				
<b>MM-TRA-1, Traffic Control Plan.</b> Prior to the start of construction of the portions of the conveyance facilities that would be located within roadway rights-of-way, the District shall require the construction contractor to prepare a Traffic Control Plan (TCP) and coordinate with the agency of jurisdiction (City of San Jacinto or County of Riverside), as applicable, to address vehicular traffic during construction of the project within the public rights-of-way of the affected jurisdiction(s), including bicycle, pedestrian, and transit facilities. The TCP shall show all signage, striping, delineated detours, flagging operations, and any other devices that will be used during construction to guide motorists, bicyclists, and pedestrians safely through the construction area and allow for adequate access and circulation. The TCP shall also ensure that congestion and traffic delay are not substantially increased as a result of the construction activities. Further, the TCP shall include detours and/or alternative routes for bicyclists using on-street bicycle lanes as well as for pedestrians using adjacent sidewalks. The District shall provide written notice at least two weeks prior to the start of construction to owners/ occupants along roadways to be affected during construction.  During construction, the District shall maintain continuous vehicular and pedestrian access to affected residential driveways from the public right-of-way to the private property line, except where necessary construction precludes such continuous access for reasonable periods of time. Access shall be reestablished at the end of the workday. If a driveway needs to be closed or interfered with as described above, the District shall notify the owner or occupant of the closure of the driveway at least	Develop a Traffic Control Plan	Prior to and During Construction	Project Manager, F.E. Inspector, Construction Contractor	Date: _____

**MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST  
PURIFIED WATER REPLENISHMENT PROJECT**

Standard Construction Practice/Design Feature	Monitoring Process	Monitoring Timing	Monitoring Responsibility	Date Completed
<i>Transportation (cont.)</i>				
<p><b>MM-TRA-1 (cont.)</b></p> <p>five working days prior to the closure. The TCP shall include provisions to ensure that the construction of the conveyance pipelines do not interfere unnecessarily with the work of other agencies such as mail delivery, school buses, and municipal waste services.</p> <p>The District shall also notify local emergency responders of planned partial or full lane closures or blocked access to roadways or driveways 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 for emergency response providers adequate time to prepare for lane closures.</p>				

This page intentionally left blank

## Section IV

---

### Final Environmental Impact Report

This page intentionally left blank

# Purified Water Replenishment Project

## SCH No. 2020049002

### Final Environmental Impact Report

*Prepared for:*

**Eastern Municipal Water District**  
2270 Trumble Road  
Perris, CA 92570

*Prepared by:*

**HELIX Environmental Planning, Inc.**  
7578 El Cajon Boulevard  
La Mesa, CA 91942

May 2021 | EMW-20

This page intentionally left blank

# TABLE OF CONTENTS

---

<b><u>Section</u></b>	<b><u>Page</u></b>
ES	EXECUTIVE SUMMARY ..... ES-1
ES.1	Overview ..... ES-1
ES.2	Project Background..... ES-1
ES.3	Project Objectives..... ES-2
ES.4	Project Description ..... ES-2
ES.5	Impact Summary..... ES-3
ES.6	Alternatives to the Project..... ES-4
ES.7	Areas of Known Controversy ..... ES-4
1.0	INTRODUCTION..... 1-1
1.1	Purpose and Intended Use of the Draft EIR..... 1-1
1.2	Prior Environmental Review ..... 1-2
1.3	Environmental Review Process..... 1-2
1.3.1	Lead, Responsible, and Trustee Agencies..... 1-2
1.3.2	Notice of Preparation/Scoping Process of the Draft EIR ..... 1-2
1.3.3	Public Review of the Draft EIR ..... 1-5
1.3.4	Final EIR and the Public Hearing Process..... 1-5
1.4	Required Public Actions and Approvals ..... 1-6
1.5	Organization of the EIR ..... 1-7
2.0	PROJECT DESCRIPTION..... 2-1
2.1	Project Background and Context ..... 2-1
2.2	Project Location ..... 2-2
2.3	Project Objectives..... 2-2
2.4	Purpose and Need of the Proposed Project ..... 2-2
2.5	Description of Proposed Project Components ..... 2-3
2.5.1	Advanced Water Treatment Facility ..... 2-3
2.5.2	Brine Management System ..... 2-4
2.5.3	Alessandro Blending Station..... 2-6
2.5.4	Conveyance Pipelines ..... 2-6
2.5.5	Mountain Avenue West Recharge Basin ..... 2-6
2.6	Drainage Plan..... 2-7
2.7	Geotechnical Design Considerations ..... 2-7
2.8	Project Phasing ..... 2-7
2.9	Construction Methods..... 2-8
2.9.1	Project Construction Features/Practices ..... 2-10
3.0	ENVIRONMENTAL SETTING..... 3-1
3.1	District Setting ..... 3-1
3.2	Project Area Characteristics..... 3-1
3.3	Local and Regional Planning Context..... 3-3
3.3.1	City of San Jacinto General Plan ..... 3-3

3.3.2	County of Riverside General Plan .....	3-3
3.3.3	San Jacinto Valley Area Plan .....	3-3
3.3.4	Western Riverside Multiple Species Habitat Conservation Plan .....	3-4
3.4	Standard Regulatory Requirements.....	3-4
3.4.1	Aesthetics.....	3-4
3.4.2	Air Quality .....	3-4
3.4.3	Cultural Resources .....	3-4
3.4.4	Geology .....	3-5
3.4.5	Hydrology and Water Quality .....	3-5
3.4.6	Hazards and Hazardous Materials .....	3-5
4.0	ENVIRONMENTAL ANALYSIS .....	4-1
4.1	Agricultural and Forestry Resources.....	4.1-1
4.1.1	Existing Conditions.....	4.1-1
4.1.2	Regulatory Framework .....	4.1-6
4.1.3	Thresholds of Significance .....	4.1-7
4.1.4	Project Impacts and Mitigation .....	4.1-8
4.2	Air Quality .....	4.2-1
4.2.1	Existing Conditions.....	4.2-1
4.2.2	Regulatory Framework .....	4.2-4
4.2.3	Thresholds of Significance .....	4.2-8
4.2.4	Project Impacts and Mitigation .....	4.2-10
4.3	Biological Resources .....	4.3-1
4.3.1	Existing Conditions.....	4.3-1
4.3.2	Regulatory Framework .....	4.3-7
4.3.3	Thresholds of Significance .....	4.3-9
4.3.4	Project Impacts and Mitigation .....	4.3-10
4.4	Cultural Resources and Tribal Cultural Resources .....	4.4-1
4.4.1	Existing Conditions.....	4.4-1
4.4.2	Regulatory Framework .....	4.4-6
4.4.3	Thresholds of Significance .....	4.4-8
4.4.4	Project Impacts and Mitigation .....	4.4-9
4.5	Energy .....	4.5-1
4.5.1	Existing Conditions.....	4.5-1
4.5.2	Regulatory Framework .....	4.5-5
4.5.3	Thresholds of Significance .....	4.5-6
4.5.4	Project Impacts and Mitigation .....	4.5-6
4.6	Geology and Soils.....	4.6-1
4.6.1	Existing Conditions.....	4.6-1
4.6.2	Regulatory Framework .....	4.6-4
4.6.3	Thresholds of Significance .....	4.6-7
4.6.4	Project Impacts and Mitigation .....	4.6-7

4.7	Greenhouse Gas Emissions .....	4.7-1
4.7.1	Existing Conditions.....	4.7-1
4.7.2	Regulatory Framework .....	4.7-5
4.7.3	Thresholds of Significance .....	4.7-10
4.7.4	Project Impacts and Mitigation .....	4.7-11
4.8	Hydrology and Water Quality .....	4.8-1
4.8.1	Existing Conditions.....	4.8-1
4.8.2	Regulatory Framework .....	4.8-6
4.8.3	Thresholds of Significance .....	4.8-10
4.8.4	Project Impacts and Mitigation .....	4.8-10
4.9	Noise .....	4.9-1
4.9.1	Existing Conditions.....	4.9-1
4.9.2	Regulatory Framework .....	4.9-4
4.9.3	Thresholds of Significance .....	4.9-9
4.9.4	Project Impacts and Mitigation .....	4.9-10
4.10	Transportation .....	4.10-1
4.10.1	Existing Conditions.....	4.10-1
4.10.2	Regulatory Framework .....	4.10-3
4.10.3	Thresholds of Significance .....	4.10-4
4.10.4	Project Impacts and Mitigation .....	4.10-5
5.0	ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT .....	5-1
5.1	Aesthetics.....	5-1
5.2	Hazards and Hazardous Materials .....	5-2
5.3	Land Use and Planning.....	5-4
5.4	Mineral Resources .....	5-5
5.5	Population and Housing.....	5-5
5.6	Public Services.....	5-6
5.7	Recreation.....	5-6
5.8	Utilities and Service Systems .....	5-8
5.9	Wildfire .....	5-9
6.0	CUMULATIVE IMPACT ANALYSIS .....	6-1
6.1	Introduction .....	6-1
6.2	Cumulative Projects .....	6-3
6.3	Impact Analysis .....	6-10
6.3.1	Agricultural Resources .....	6-10
6.3.2	Air Quality .....	6-10
6.3.3	Biological Resources .....	6-11
6.3.4	Cultural Resources and Tribal Cultural Resources .....	6-13
6.3.5	Energy .....	6-14
6.3.6	Geology and Soils.....	6-14
6.3.7	Greenhouse Gas Emissions.....	6-15
6.3.8	Hydrology and Water Quality .....	6-15
6.3.9	Noise .....	6-16

6.3.10	Transportation .....	6-17
6.4	Conclusion.....	6-18
7.0	OTHER CEQA-RELATED SECTIONS.....	7-1
7.1	Growth Inducement.....	7-1
7.1.1	Introduction .....	7-1
7.1.2	Project Area Population Projections.....	7-2
7.1.3	Water Supply and Demand.....	7-2
7.1.4	Growth Inducement Potential .....	7-3
7.2	Significant and Unavoidable Environmental Impacts.....	7-5
7.3	Significant Irreversible Environmental Effects.....	7-5
8.0	ALTERNATIVES .....	8-1
8.1	Scope of Alternatives Analysis .....	8-1
8.2	Project Objectives.....	8-1
8.3	Alternatives Considered but Rejected .....	8-2
8.3.1	24-inch Advanced Treated Water Conveyance Pipeline .....	8-2
8.3.2	36-inch Conveyance Pipeline Along the San Jacinto River .....	8-2
8.4	Alternatives Analyzed .....	8-2
8.4.1	Alternative 1: No Project .....	8-2
8.4.2	Alternative 2: Brine Discharge Pipeline .....	8-3
8.4.3	Summary.....	8-7
8.5	Environmentally Superior Alternative .....	8-9
9.0	REFERENCES.....	9-1
10.0	LIST OF PREPARERS.....	10-1

**LIST OF APPENDICES**

A	NOP and Comments
B	Air Quality/Greenhouse Gas Emissions Technical Report
C	Biological Technical Report
D	Cultural Resources Survey
E	Preliminary Design Report

**LIST OF FIGURES**

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Follows Page</u></b>
2-1	District Service Area .....	2-10
2-2	Regional Location .....	2-10
2-3	Project Components.....	2-10
2-4	Advanced Water Treatment Facility Conceptual Site Plan.....	2-10
2-5	Process and Control Building Conceptual Elevations.....	2-10
2-6	Brine Management System Conceptual Site Plan.....	2-10
2-7	Alessandro Blending Station Conceptual Site Plan .....	2-10
2-8a-g	Conceptual Conveyance Pipeline Alignments.....	2-10
4.1-1	Farmland Designations and Soils.....	4.1-18
4.1-2	Agricultural Zone of Influence .....	4.1-18
4.3-1a-i	Vegetation and Sensitive Resources/Land Use Impacts .....	4.3-18
4.3-2a-i	Aquatic Resources Avoidance .....	4.3-18
4.6-1	Earthquake Faults.....	4.6-14
4.8-1	San Jacinto Valley Hydrologic Unit .....	4.8-20
4.8-2	San Jacinto Groundwater Basin.....	4.8-20
4.8-3	Groundwater Management Zones.....	4.8-20
4.8-4	Clean Water Act Impaired Water Bodies .....	4.8-20
4.9-1	Construction Noise Time Restriction Areas.....	4.9-14
4.10-1a-f	Pipeline Impacts within the Public Right-of-Way.....	4.10-8
6-1	Cumulative Projects.....	6-18
8-1	Brine Discharge Pipeline Alternative.....	8-10

**LIST OF TABLES**

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
S-1	Summary of Environmental Impacts and Mitigation Measures .....	ES-6
S-2	Summary of Cumulative Impacts .....	ES-23
1-1	NOP Comment Letter Issue Area.....	1-3
1-2	Anticipated Regulatory Permits and Approvals .....	1-6
2-1	Process and Control Building Space Requirements.....	2-4
2-2	Brine Ponds Characteristics.....	2-5
2-3	PWR Project Capacity Goals .....	2-8
2-4	Construction Schedule and Equipment.....	2-9
4.1-1	Important Farmland within the Subject Site .....	4.1-2
4.1-2	California LESA Model Scoring Thresholds.....	4.1-8
4.1-3	Numeric Conversion of Land Capability Classification Units.....	4.1-9
4.1-4	Project Size Scoring .....	4.1-9
4.1-5	Water Resource Availability Scoring .....	4.1-10
4.1-6	Surrounding Agricultural Land Scoring.....	4.1-11
4.1-7	Surrounding Protected Resource Land Scoring.....	4.1-12
4.1-8	Land Capability Classification and Storie Index Scores for the Subject Site.....	4.1-13
4.1-9	Project Size Score for the Subject Site .....	4.1-13

**LIST OF TABLES (cont.)**

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
4.1-10	Water Resource Availability Score for the Subject Site.....	4.1-14
4.1-11	Agricultural Production within the Zone of Influence.....	4.1-14
4.1-12	Protected Resource Land within the Zone of Influence.....	4.1-14
4.1-13	Final LESA Score for the Subject Site.....	4.1-15
4.2-1	Summary of Common Sources and Human Health Effects of Criteria Air Pollutants .....	4.2-2
4.2-2	Air Quality Monitoring Data .....	4.2-4
4.2-3	Ambient Air Quality Standards.....	4.2-5
4.2-4	South Coast Air Basin Attainment Status .....	4.2-8
4.2-5	SCAQMD Air Quality Significance Thresholds .....	4.2-9
4.2-6	Maximum Daily Phase I Construction Emissions.....	4.2-12
4.2-7	Maximum Daily Phase I (2024) Operational Emissions.....	4.2-13
4.2-8	Concurrent Phase I Operational and Phase II Construction Emissions .....	4.2-13
4.2-9	Maximum Daily Phase II Operational Emissions .....	4.2-14
4.2-10	Maximum Localized Daily Construction Emissions .....	4.2-16
4.3-1	Vegetation Communities and Land Covers .....	4.3-1
4.4-1	Native American Tribal Consultation Summary .....	4.4-14
4.5-1	California Electricity Sources 2018 .....	4.5-2
4.5-2	Riverside County Electricity Consumption 2014-2018 .....	4.5-4
4.5-3	Riverside County Gas Consumption 2014-2018.....	4.5-4
4.5-4	Estimated Energy Consumption from Construction Equipment and Vehicles.....	4.5-7
4.6-1	Fault Zones in the Project Vicinity.....	4.6-2
4.7-1	Global Warming Potentials and Atmospheric Lifetimes .....	4.7-3
4.7-2	California GHG Emissions by Sector .....	4.7-3
4.7-3	2017 County-wide GHG Emissions by Source .....	4.7-4
4.7-4	Western Riverside Council of Governments 2010 GHG Emissions by Sector .....	4.7-4
4.7-5	Estimated Phase I Construction GHG Emissions .....	4.7-12
4.7-6	Total Estimated Phase I Operational GHG Emissions.....	4.7-14
4.7-7	Estimated Phase II Construction GHG Emissions .....	4.7-15
4.7-8	Total Estimated Phase II Operational GHG Emissions.....	4.7-16
4.8-1	Water Bodies within the San Jacinto River Watershed Identified as Impaired under the Clean Water Act .....	4.8-3
4.9-1	Typical A-Weighted Noise Levels .....	4.9-1
4.9-2	Vibration Damage Potential Threshold Criteria .....	4.9-5
4.9-3	Vibration Annoyance Potential Threshold Criteria .....	4.9-5
4.9-4	City of San Jacinto Exterior Noise Level Standards .....	4.9-6
4.9-5	City of San Jacinto General Plan Interior and Exterior Noise Standards .....	4.9-7
4.9-6	County of Riverside Exterior Sound Level Standards .....	4.9-7
4.9-7	County of Riverside Land Use Compatibility for Community Noise Exposure .....	4.9-9
4.9-8	Stationary Source Residential Land Use Standards.....	4.9-9
4.9-9	Typical Noise Levels from Anticipated Construction Equipment .....	4.9-10
6-1	Geographic Scope of Cumulative Impact Analyses .....	6-1
6-2	List of Cumulative Projects.....	6-4

**LIST OF TABLES (cont.)**

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
7-1	Population Projections .....	7-2
7-2	District Projected Water Supply and Demand .....	7-3
8-1	Summary of Analysis for Alternatives to the Project .....	8-7
8-2	Summary of Project Objectives .....	8-9

# ACRONYMS AND ABBREVIATIONS

---

AB	Assembly Bill
ACBCI	Agua Caliente Band of Cahuilla Indians
ADA	Americans with Disabilities Act
AFY	acre-feet per year
AMSL	above mean sea level
APCD	air pollution control district
AQMP	Air Quality Management Plan
AWTF	Advanced Water Treatment Facility
BACM	Best Available Control Measures
BCC	Bird of Conservation Concern
bcf	billion cubic feet
BMPs	best management practices
BOR	Bureau of Reclamation
BTU	British thermal unit
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CASGEM	California Statewide Groundwater Elevation Monitoring
CBC	California Building Code
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CED	California Energy Demand
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG Code	California Fish and Game Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH <sub>4</sub>	methane
CHRIS	California Historical Resources Information System
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society

CNRP	Comprehensive Nutrient Reduction Plan
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSMP	Construction Site Monitoring Program
CWA	Clean Water Act
CY	cubic yard
dB	decibel
dba	A-weighted decibel
DDW	Division of Drinking Water
DEH	Department of Environmental Health
District	Eastern Municipal Water District
DOI	Department of the Interior
DPM	diesel particulate matter
DSOD	Division of Safety of Dams
DTSC	California Department of Toxic Substances Control
DWR	Department of Water Resources
EIC	Eastern Information Center
EIR	Environmental Impact Report
EO	Executive Order
ERRP	Enhanced Recharge and Recovery Program
ESA	federal Endangered Species Act
FEMA	Federal Emergency Management Administration
FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gas emissions
GRP	Groundwater Reliability Plus
GSF	gross square foot/feet
GWh	gigawatt hour
GWP	global warming potential
H <sub>2</sub> S	hydrogen sulfide
HA	hydrologic area
HAPs	hazardous air pollutants
HCP	Habitat Conservation Plan
HDPE	high density polyethylene
HFCs	hydrofluorocarbons
HMBP	Hazardous Materials Business Plan
HRA	health risk assessment
HSA	hydrologic subarea
HSC	Health and Safety Code
HU	hydrologic unit
HVAC	heating, ventilation, and air conditioning

Hz	hertz
I-	Interstate
IBC	International Building Code
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resources Plan
kV	kilovolt
kW	kilowatt
kWh	kilowatt hour
LCC	Land Capability Classification
LCFS	Low Carbon Fuel Standard
LCRS	Leachate Collection and Removal System
L <sub>DN</sub>	Day-Night Sound Level
L <sub>EQ</sub>	Equivalent Sound Level
LESA	Land Evaluation and Site Assessment
LHMP	Local Hazard Mitigation Plan
L <sub>MAX</sub>	Maximum Sound Level
LOS	level of service
LST	localized significance threshold
LUP	linear underground project
MBTA	Migratory Bird Treaty Act
MCLs	maximum contaminant levels
MCV	Manual of California Vegetation
MEI	maximally exposed individual
MF	membrane filtration
mg/L	milligrams/liter
MGD	million gallons per day
MLD	Most Likely Descendant
MMT	million metric tons
mph	miles per hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton
MW	megawatt
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration

NO <sub>2</sub>	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSLU	noise-sensitive land use
NVCS	National Vegetation Classification System
O <sub>3</sub>	ozone
OHP	Office of Historic Preservation
OHWM	ordinary high water mark
OPR	Office of Planning and Research
PCBs	polychlorinated biphenyls
PCE	Primary Constituent Element
PFCs	perfluorocarbons
PGA	peak ground acceleration
PM	particulate matter
PM <sub>10</sub>	respirable PM equal to or less than 10 microns in diameter
PM <sub>2.5</sub>	fine PM equal to or less than 2.5 microns in diameter
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PSMZ	Perris South Management Zone
PVRWRF	Perris Valley Regional Water Reclamation Facility
PWR	Purified Water Replenishment
RCP	Regional Comprehensive Plan
RCTC	Riverside County Transportation Commission
REAP	Rain Event Action Plan
RMP	Risk Management Plan
RMS	root mean square
RO	reverse osmosis
ROGs	reactive organic gasses
RTA	Riverside Transit Agency
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SAFE	Safer Affordable Fuel-Efficient
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCC	Species of Special Concern

SCE	Southern California Edison
SCEDC	Southern California Earthquake Data Center
SCH	State Clearinghouse
SCS	Soil Conservation Service
SCS	Sustainable Communities Strategy
SDC	seismic design category
SF <sub>6</sub>	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SJP	San Jacinto Power
SJUPMZ	San Jacinto Upper Pressure Management Zone
SJV	San Jacinto Valley
SJVRWRF	San Jacinto Valley Regional Water Reclamation Facility
SLC	State Lands Commission
SLR	San Luis Rey
SO <sub>2</sub>	sulfur dioxide
SOC	Statement of Overriding Considerations
SoCalGas	Southern California Gas Company
SR	State Route
SRA	source receptor area
SSC	Species of Special Concern
SUV	sports utility vehicle
SWAMP	Surface Water Ambient Monitoring Program
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TCP	Traffic Control Plan
TCR	Tribal Cultural Resource
TDS	total dissolved solids
TMDL	total maximum daily load
TOC	total organic carbon
U.S.	United States
UBC	Uniform Building Code
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
VOCs	volatile organic compounds
VZMS	Vadose Zone Monitoring System

WLA	waste load allocation
WMA	Watershed Management Area
WQCP	Water Quality Control Plan
WQIP	Water Quality Improvement Plan
WRCC	Western Regional Climate Center
WRCOG	Western Riverside Council of Governments
ZEV	zero emissions vehicle
ZOI	zone of influence

This page intentionally left blank

# EXECUTIVE SUMMARY

---

This chapter presents an executive summary of the Environmental Impact Report (EIR) for implementation of Eastern Municipal Water District's (District's) Purified Water Replenishment (PWR) Project (proposed project), prepared in compliance with the California Environmental Quality Act (CEQA). The project proposes to construct and operate facilities that would replenish the San Jacinto Upper Pressure Groundwater Management Zone (SJUPMZ) aquifer with a combination of recycled water and advanced treated water to reduce reliance on imported water sources, provide improved drought resiliency, and potentially improve the quality of the groundwater basin utilized by the District. This summary provides a brief description of the project, including the project's background and objectives, outlines the alternatives to the project, and identifies areas of known controversy. In addition, this chapter provides tables that summarize: (1) the direct and indirect impacts that would occur from implementation of the project; (2) the level of impact significance before mitigation; (3) the recommended mitigation measures that would avoid or reduce significant environmental impacts; (4) the level of impact significance after mitigation measures are implemented; and (5) cumulative impacts.

## ES.1 OVERVIEW

As required by CEQA, this EIR: (1) assesses the potentially significant direct, indirect, and cumulative environmental effects of the project; (2) identifies potential feasible means of avoiding or substantially lessening significant adverse impacts; (3) identifies significant and unavoidable adverse impacts that cannot be mitigated to below a less than significant level; and (4) evaluates a range of reasonable alternatives to the project, including the required No Project Alternative. The District is the "Lead Agency" for this EIR for the implementation of the project. The District has the principal responsibility for certifying the EIR and approving the project.

## ES.2 PROJECT BACKGROUND

In 2011, the District completed the Integrated Resources Plan (IRP) to address future water supply challenges and develop an overall strategy for future water supply. The IRP is a flexible long-term strategy for the development of water supplies, implementation of key facilities, and execution of inter-agency agreements needed to expand and operate the District's water, recycled water, and wastewater system. The IRP recommended strategies for both expanded local water supplies and imported water supplies. The proposed PWR project, which would use recycled water to recharge groundwater basins, was recommended as a key local water supply strategy for the District's future water supply portfolio.

The PWR project began with the preparation of the SJUPMZ Indirect Potable Reuse Phase I Study (CDM Smith 2014). The Phase I Study included an evaluation of five PWR project alternatives for recharge into the SJUPMZ and provided recommendations related to recycle water treatments, recharge method and locations, conveyance, and brine management for each alternative. Two alternatives were recommended in the Phase I Study: (1) a blend of recycled water and reverse osmosis (RO) permeate and (2) a phased approach with Phase I including only recharge of recycled water and Phase II including recharge of a blend of recycled water and RO permeate.

Following the Phase I Study, a PWR Program Definition Study (Phase II Study) was prepared and included a comparison of projects for both the SJUPMZ and the Perris South Management Zone (PSMZ);

CDM Smith 2016). The Phase II study evaluated five alternatives with varying recharge into the SJUPMZ and/or the PSMZ. Recharge into the SJUPMZ with a blend of recycled water and RO permeate was recommended.

The District subsequently established the goal of a two-phase implementation program with a Phase I recharge capacity of 4,000 acre-feet per year (AFY) and a Phase II expansion of 11,000 AFY for a 15,000-AFY total recharge PWR project. The recharge flow would consist of RO permeate and tertiary media filtered recycled water (tertiary recycled water).

### **ES.3 PROJECT OBJECTIVES**

Specific key objectives of the proposed project are to:

- Produce advanced treated water and combine it with tertiary recycled water for recharge into, and replenishment of, the SJUPMZ;
- Contribute to establishing a local, long-term sustainable water supply for the District's service area;
- Provide increased water supply reliability during droughts and emergencies;
- Increase the amount of groundwater that can be pumped seasonally through recharge and storage of a combination of advanced treated water and tertiary recycled water; and
- Utilize recycled water in an environmentally responsible manner (i.e., no recycled water is discharged outside of the District's service area).

### **ES.4 PROJECT DESCRIPTION**

The proposed project would occur as part of the District's Groundwater Reliability Plus (GRP) initiative. GRP encompasses the District's actions and investments aimed at improving the quality and quantity of water in local groundwater basins, also called aquifers. The benefits of GRP include improved groundwater quality and reduced water salinity, higher groundwater levels resulting in lower pumping costs, increased groundwater availability, and drought-resilient supply reliability. The District previously initiated the San Jacinto Valley Water Banking – ERRP as part of the GRP initiative. The purpose of the San Jacinto Valley Water Banking – ERRP is to aid in enhancing current and future water supplies by recharging imported water into the local groundwater basin. Groundwater produced (extracted) by the San Jacinto Valley Water Banking – ERRP would be used within the District's service area. The groundwater could also be made available to the District's sub-agencies or other regional water agencies through an exchange, with no physical export of local supplies.

The proposed project would replenish the SJUPMZ aquifer with a combination of recycled water and advanced treated water to reduce reliance on imported water sources, provide improved drought resiliency, and potentially improve the quality of the groundwater basin utilized by the District. The project would work in conjunction with the San Jacinto Valley Water Banking – ERRP by utilizing the existing Mountain Avenue West Recharge Basin, which was developed as part of the San Jacinto Valley Water Banking – ERRP, for recharge of the proposed project's combined tertiary recycled water and advanced treated water.

The proposed project would include the following components:

- Construction of an Advanced Water Treatment Facility (AWTF) near the District’s existing San Jacinto Valley Regional Water Reclamation Facility (SJVRWRF);
- Construction of a brine management system north of the AWTF site that would include five interconnected evaporation ponds with a total evaporation surface area of approximately 20 acres;
- Construction of Alessandro Blending Station facilities that would blend advanced treated water and tertiary recycled water;
- Relining of an existing 18-inch-diameter pipeline that would convey advanced treated water from the AWTF site to the proposed Alessandro Blending Station; and
- Construction of a new 36-inch-diameter pipeline that would convey blended water from the Alessandro Blending Station to the existing Mountain Avenue West Recharge Basin.

## ES.5 IMPACT SUMMARY

The EIR examines the potential environmental effects from implementation of the proposed project, including information related to existing site conditions, analyses of the types and magnitude of individual and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts. In accordance with Appendix G of the *CEQA Guidelines*, the potential environmental effects of the proposed project were analyzed for the following areas:

- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Noise
- Transportation

Table S-1, *Summary of Environmental Impacts and Mitigation Measures*, presented at the end of this chapter provides a summary of the environmental impacts that could result from implementation of the project and feasible mitigation measures that could reduce or avoid environmental impacts. Table S-2, *Summary of Cumulative Impacts*, summarizes cumulative impacts and whether the project would result in a cumulatively considerable contribution to a cumulative impact.

Impacts to aesthetics, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, utilities and service systems, and wildfire are considered to be “Effects Found Not to be Significant,” according to Section 15128 of the *CEQA Guidelines*. These issues are discussed further in Chapter 5, *Environmental Effects Found Not to be Significant*, of this EIR.

## ES.6 ALTERNATIVES TO THE PROJECT

The following two alternatives are analyzed in detail in Chapter 8, *Alternatives*, of this EIR. The objective of the alternatives analysis is to consider a reasonable range of potentially feasible alternatives to foster informed decision-making and public participation. The alternatives include:

- **No Project.** Under the “No Project” alternative, the District would not implement the proposed project.
- **Brine Discharge Pipeline.** This alternative would include the installation of a force main for the disposal of project-generated brine waste instead of the brine ponds that are included as part of the proposed project. Other facilities included under the proposed project would remain the same.

*CEQA Guidelines* Section 15126.6(e)(2) requires that an EIR identify the environmentally superior alternative among the alternatives that are evaluated. Under the No Project Alternative, the proposed project would not be implemented, and the alternative would therefore avoid potentially significant environmental impacts to biological resources, cultural resources and tribal cultural resources, geology and soils (paleontological resources), noise, and transportation identified for the proposed project. In the short term, the No Project Alternative would result in reduced impacts related to construction with respect to air quality, energy, GHG emissions (despite impacts related to air quality, energy, and GHG emissions being less than significant under the proposed project), and hydrology and water quality. However, in the long term, regional benefits related to energy use and reduction in indirect GHG emissions from lowering the amount of water needed to be transported from Northern California would not be realized. Further, long term benefits from improving groundwater quality would also not be achieved. In addition, the No Project Alternative would not meet any of the project objectives.

*CEQA Guidelines* Section 15126.6(e)(2) also requires that an EIR identify another alternative as environmentally superior, besides the No Project Alternative. In this case, the next environmentally superior alternative is the Brine Discharge Pipeline Alternative. The Brine Discharge Pipeline Alternative would still incur impacts related to construction and operation; however, impacts related to air quality, GHG emissions, and noise would be substantially reduced due to less grading, which would result in reduced use of off-road heavy equipment, haul truck trips, and dust generation. While some impacts would occur closer to residences, such impacts are anticipated to be less than significant.

## ES.7 AREAS OF KNOWN CONTROVERSY

To initiate the public scoping process for this EIR in accordance with CEQA, the District circulated a Notice of Preparation (NOP) on April 2, 2020. The 60-day<sup>1</sup> public review period for the NOP ended on June 1, 2020. Commenters on the NOP expressed concerns related to potential impacts to Native American human remains and tribal cultural resources; dam safety (if dams are to be included in the project, which they are not); conflict with San Jacinto Valley Master Drainage Plan facilities, easements and encroachment permits, and Multiple Species Habitat Conservation Plan (MSHCP) consistency for encroachment permits; and potential impacts to biological resources. These concerns have been

---

<sup>1</sup> State law mandates that responses to the NOP must be sent at the earliest possible date but postmarked within 30 days from distribution of the NOP; however, in light of the COVID-19 pandemic, which may have limited ability for NOP review and comment and which resulted in the District not being able to hold a scoping meeting, responses postmarked within 60 days from distribution of the NOP, or through June 1, 2020, were accepted.

identified as areas of known controversy and are addressed throughout this EIR. Comment letters received in response to the NOP are included in Appendix A of this EIR.

**Table S-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>4.1 Agricultural and Forestry Resources</b>				
Conversion of Prime Farmland, Unique Farmland, of Farmland of Statewide Importance	Although the proposed project would convert Unique Farmland and Farmland of Statewide Importance to non-agricultural use, the impact would be less than significant.	Less than Significant	No mitigation is necessary.	Less than Significant
Williamson Act Contract	The proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract.	No Impact	No mitigation is necessary.	No Impact
Zoning for Forest Land	The proposed project would not conflict with land zoned as forest land, timberland, or timberland zoned Timberland Production.	No Impact	No mitigation is necessary.	No Impact
Loss or Conversion of Forest Land	The proposed project would not result in the loss of forest land or the conversion of forest land to non-forest use.	No Impact	No mitigation is necessary.	No Impact
Conversion of Farmland to Non-agricultural Use or Forest Land to Non-forest Use	Although the proposed project would convert agricultural land to non-agricultural use, the impact would be less than significant.	Less than Significant	No mitigation is necessary.	Less than Significant
<b>4.2 Air Quality</b>				
Conflicts with Air Quality Plans	The proposed project would not conflict with obstruct implementation of the applicable air quality plan.	Less than Significant	No mitigation is necessary.	Less than Significant
Air Quality Standards	The proposed project would not result in a cumulatively considerable net increase of	Less than Significant	No mitigation is necessary.	Less than Significant

**Table S-1 (cont.)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	any criteria for which the project region in non-attainment.			
Sensitive Receptors	The proposed project would not expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	No mitigation is necessary.	Less than Significant
Odors	The proposed project would not result in other emissions, such as those leading to odors, affecting a substantial number of people.	Less than Significant	No mitigation is necessary.	Less than Significant
<b>4.3 Biological Resources</b>				
Special Status Species	During construction, the proposed project has the potential to directly and/or indirectly affect special status plant and animal species including smooth tarplant, chaparral sand-verbena, nesting birds and raptors, least Bell's vireo, and burrowing owl.	Potentially Significant	<b>MM-BIO-1 Temporary Construction Fencing.</b> Prior to construction, to help ensure inadvertent impacts to environmentally sensitive areas outside of the approved impact footprint are avoided, temporary construction fencing, including silt fencing, as appropriate and where determined necessary by the SWPPP, shall be installed at the edges of the approved impact limits for the project. Temporary fencing shall be installed at locations where the project components occur adjacent to resources depicted on Figure 4.3-1, <i>Vegetation and Sensitive Resources/Land Use Impacts</i> , and Figure 4.3-2, <i>Aquatic Resources Avoidance</i> , in addition to locations at the proposed Alessandro Blending Facility and the proposed 36-inch pipeline trenching along Ramona Expressway, from Vernon Avenue to Old Mountain Avenue. A qualified biologist shall be retained to monitor the installation of the temporary construction fencing wherever it would abut environmentally sensitive areas. Construction activities	Less than Significant

**Table S-1 (cont.)  
 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			shall be restricted to areas within the approved impact limits at all times during construction.	
			<b>MM-BIO-2 Biological Monitoring.</b> A qualified biologist will conduct a pre-construction environmental training session for construction personnel to inform them of the sensitive biological resources in the local area and the avoidance measures in place to remain in compliance. The biologist will periodically monitor construction activities where temporary construction fencing has been installed in accordance with mitigation measure MM-BIO-1.	
			<b>MM-BIO-3 Nesting Bird and Raptor Avoidance.</b> Trimming, grubbing, and clearing of vegetation shall be avoided during the general avian breeding season (January 15 to July 15 for raptors; February 15 to August 31 for other avian species) to the extent feasible and shall not occur within sensitive vegetation communities or suitable habitat for sensitive bird species. If trimming, grubbing, or clearing of vegetation is proposed to occur during the general avian breeding season, a pre-construction survey shall be conducted by a qualified biologist no more than 7 days prior to vegetation clearing to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, trimming, grubbing, and clearing of vegetation shall be allowed to proceed. If active bird nests are confirmed to be present during the pre-construction survey, a buffer zone will be established by the biologist. Construction activities shall avoid any active nests until a qualified biologist has verified that the young have fledged, or the nest has otherwise become inactive.	

**Table S-1 (cont.)  
 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p><b>MM-BIO-4 Burrowing Owl Pre-Construction Take Avoidance Survey.</b> Prior to construction, the District shall retain a qualified biologist to conduct required pre-construction take avoidance surveys for the burrowing owl in accordance with the protocol described in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). The initial take avoidance survey shall occur no less than 14 days prior to initiating ground-disturbing activities, with a final survey conducted within 24 hours prior to initiating ground disturbing activities. If, after the initial take avoidance survey, no suitable burrowing owl habitat, including burrows, is present, then the second survey 24 hours prior to ground disturbance would not be required. If no active burrowing owl burrows (nesting sites) are identified within the potential impact area of the project during the take avoidance surveys, then no additional action would be required. If active burrowing owl burrows are identified within the potential impact area, the project shall avoid disturbing active burrowing owl burrows (nesting sites) and burrowing owl individuals. Buffers shall be established around occupied burrows in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) based on the proposed level of disturbance. For low disturbance projects, initial setback distances for avoidance of active burrows shall be 200 meters (approximately 656 feet) from April 1 to October 15 and 50 meters (approximately 164 feet) from October 16 to March 31. Exceptions can be made to the avoidance distance for areas with natural (hills, trees) or artificial (buildings, walls) barriers in place. The final avoidance buffer shall be at the discretion of the</p>	

**Table S-1 (cont.)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			biologist. If, after consideration of a reduced buffer, an adequate avoidance buffer cannot be provided between an occupied burrow and required ground-disturbing activities, then passive relocation activities during the non-breeding season (September 1 through January 31) may be authorized in consultation with CDFW, which would include preparation, approval, and implementation of a Burrowing Owl Exclusion Plan in accordance with protocol described in the CDFW Staff Report on Burrowing Owl Mitigation.	
Sensitive Habitats	The proposed project would not have a substantial adverse effect on riparian or other sensitive habitats.	No Impact	No mitigation is necessary.	No Impact
Wetlands	During construction, the proposed project could inadvertently result in indirect impacts to jurisdictional drainage features.	Potentially Significant	MM-BIO-1 and MM-BIO-2	Less than Significant
Wildlife Movement	The proposed project would not interfere with wildlife movement.	Less than Significant	No mitigation is necessary.	Less than Significant
Local Policies	The proposed project would not conflict with local policies protecting biological resources.	No Impact	No mitigation is necessary.	No Impact
Conservation Planning	The District is not a signatory to the Western Riverside Multiple Species Habitat Conservation Plan; regardless, through implementation of mitigation measures, the project would be consistent.	No Impact	No mitigation is required; however, mitigation measures MM-BIO-1 through MM-BIO-4 would ensure consistency with the Western Riverside Multiple Species Habitat Conservation Plan.	No Impact

**Table S-1 (cont.)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>4.4 Cultural and Tribal Cultural Resources</b>				
Historical Resources	The proposed project would not cause a substantial adverse change in the significance of a historical resource.	No Impact	No mitigation is necessary.	No Impact
Archaeological Resources	Based on the cultural sensitivity of the area, the proposed project could affect unidentified archaeological resources during ground-disturbing activities.	Potentially Significant	<b>MM-CUL-1 Cultural Resources Treatment and Monitoring Agreement.</b> At least 30 days prior to the start of ground-disturbing activities, the District shall contact the Consulting Tribe(s) to develop Cultural Resource Treatment Monitoring Agreement(s) (“Agreement”). The Agreement(s) shall address the treatment of archaeological resources inadvertently discovered on the project site; project grading; ground disturbance and development scheduling; the designation, responsibilities, and participation of tribal monitor(s) during grading, excavation, and ground-disturbing activities; and compensation for the tribal monitors, including overtime, weekend rates, and mileage reimbursements.	Less than Significant
			<b>MM-CUL-2 Develop a Cultural Resources Monitoring Plan.</b> Prior to grading activities, a Cultural Resources Monitoring Plan shall be prepared by a qualified archaeologist in consultation with the Consulting Tribe(s). The plan shall also identify the location and timing of cultural resources monitoring. The plan shall contain an allowance that the qualified archaeologist, based on observations of subsurface soil stratigraphy or other factors during initial grading, and in consultation with the Native American monitor and the lead agency, may reduce or discontinue monitoring as warranted if the archaeologist determines that the possibility of encountering archaeological deposits is low. The plan shall outline the appropriate measures to be followed	

**Table S-1 (cont.)  
 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>in the event of unanticipated discovery of cultural resources during project implementation (including during the survey to occur following vegetation removal and monitoring during ground-disturbing activities). The plan shall identify avoidance as the preferred manner of mitigating impacts to cultural resources. The plan shall establish the criteria utilized to evaluate the historic significance (per CEQA) of the discoveries, methods of avoidance consistent with <i>CEQA Guidelines</i> Section 15126.4(b)(3), as well as identify the appropriate data recovery methods and procedures to mitigate the effect of the project if avoidance of significant historical or unique archaeological resources is determined to be infeasible. The plan shall also include reporting of monitoring results within a timely manner, disposition of artifacts, curation of data, and dissemination of reports to local and state repositories, libraries, and interested professionals. A qualified archaeologist and Consulting Tribe(s) tribal monitor shall attend a pre-grade meeting with District staff, the contractor, and appropriate subcontractors to discuss the monitoring program, including protocols to be followed in the event that cultural material is encountered.</p>	
			<p><b>MM-CUL-3 Tribal Monitoring Agreements.</b> A qualified archaeological monitor and a Consulting Tribe(s) monitor shall be present for ground-disturbing activities associated with the Project, and both the project archaeologist and Tribal Monitor(s) will make a determination as to the areas with a potential for encountering cultural material. At least seven business days prior to project grading, the District shall contact the tribal monitors to notify the Tribe of grading/</p>	

**Table S-1 (cont.)  
 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			excavation and the monitoring program/schedule, and to coordinate with the Tribe on the monitoring work schedule. Both the archaeologist and the tribal monitor shall have the authority to stop and redirect grading activities in order to evaluate the nature and significance of any archaeological resources discovered within the project limits. Such evaluation shall include culturally appropriate temporary and permanent treatment pursuant to the Cultural Resources Treatment and Monitoring Agreement, which may include avoidance of cultural resources, in-place preservation, data recovery, and/or reburial so the resources are not subject to further disturbance in perpetuity. Any reburial shall occur at a location predetermined between the District and the Consulting Tribe(s), details of which shall be addressed in the Cultural Resources Treatment and Monitoring Agreement in MM-CUL-1. Treatment may also include curation of the cultural resources at a tribal curation facility, as determined in discussion among the District, the project archaeologist, and the tribal representatives and addressed in the Cultural Resources Treatment and Monitoring Agreement referenced in MM-CUL-1.	
			<b>MM-CUL-4 Evaluation of Discovered Artifacts.</b> All artifacts discovered at the development site shall be inventoried and analyzed by the project archaeologist and tribal monitor(s). A monitoring report will be prepared, detailing the methods and results of the monitoring program, as well as the disposition of any cultural material encountered. If no cultural material is encountered, a brief letter report will be sufficient to document monitoring activities.	

**Table S-1 (cont.)  
 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p><b>MM-CUL-5 Disposition of Inadvertent Discoveries.</b> In the event that Native American cultural resources are recovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries with the tribe. The District shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources, and adhere to the following:</p> <ol style="list-style-type: none"> <li>1. Preservation-in-place is the preferred option; preservation-in-place means avoiding the resources and leaving them in the place where they were found with no development affecting the integrity of the resource.</li> <li>2. If preservation-in-place is not feasible, on-site reburial of the discovered items as detailed in the Monitoring Plan required pursuant to MM-CUL-2 is the next preferable treatment measure. This shall include measures and provisions to protect the future reburial area from future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments.</li> <li>3. In the event that on-site reburial is not feasible, the District shall enter into a curation agreement with an appropriate qualified repository within Riverside County that meets</li> </ol>	

**Table S-1 (cont.)  
 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			federal standards per 36 Code of Federal Regulations 800 Part 79 and therefore would be curated and made available to other archaeologists/ researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.	
			<b>MM-CUL-6 Non-Disclosure of Reburial Locations.</b> It is understood by all parties that unless otherwise required by law, the site of any reburial of culturally sensitive resources shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254(r), parties, and Lead Agencies will be asked to withhold public disclosure information related to such reburial.	
Human Remains	The proposed project could inadvertently disturb unidentified human remains during ground-disturbing activities.	Potentially Significant	<b>MM-CUL-7 Procedure to Address Inadvertent Disturbance of Human Remains.</b> If Native American human remains are encountered, PRC Section 5097.98 and California Health and Safety Code Section 7050.5 will be followed. If human remains are encountered no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California PRC Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours. Subsequently, the NAHC shall identify	Less than Significant

**Table S-1 (cont.)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			the person or persons it believes to be the “most likely descendant.” The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in PRC Section 5097.98.	
Tribal Cultural Resources	Based on the cultural sensitivity of the area, the proposed project could affect unidentified tribal cultural resources during ground-disturbing activities.	Potentially Significant	MM-CUL-1 through MM-CUL-7	Less than Significant
<b>4.5 Energy</b>				
Wasteful, Inefficient, or Unnecessary Energy Consumption	The proposed project would not use energy in a wasteful, inefficient, or unnecessary manner.	Less than Significant	No mitigation is necessary.	Less than Significant
Conflict with Energy Plans	The proposed project would not conflict with state or local plan for renewable energy or energy efficiency.	Less than Significant	No mitigation is necessary.	Less than Significant
<b>4.6 Geology and Soils</b>				
Seismic Hazards	With incorporation of site-specific design measures, the proposed project would not cause potential adverse effects related to seismic hazards.	Less than Significant	No mitigation is necessary.	Less than Significant
Erosion and Sedimentation	The proposed project would not result in substantial erosion or the loss of topsoil.	Less than Significant	No mitigation is necessary.	Less than Significant
Geologic Instability	The proposed project would not result in substantial effects associated with geologic instability.	Less than Significant	No mitigation is necessary.	Less than Significant

**Table S-1 (cont.)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Expansive Soil	The proposed project would not cause substantial risks related to expansive soils.	Less than Significant	No mitigation is necessary.	Less than Significant
Septic Tanks	The proposed project would not require the use of septic tanks.	No Impact	No mitigation is necessary.	Less than Significant
Paleontological Resources	The project is located in an area of high paleontological sensitivity; therefore, the proposed project could affect buried paleontological resources during excavation activities.	Potentially Significant	<p><b>MM-GEO-1 Paleontological Resources Mitigation and Monitoring Plan.</b> A Paleontological Resources Mitigation and Monitoring Plan shall be prepared prior to commencing construction activities that would exceed four feet in depth that could directly affect geologic formations with high paleontological resource sensitivity. A qualified paleontologist shall be retained to carry out and manage the plan. Fieldwork may be carried out by a qualified paleontological monitor working under the direction of the paleontologist.</p> <p>Components of the Paleontological Resources Mitigation and Monitoring Plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• The paleontologist shall attend all pre-grading meetings to inform the grading and excavation contractors of the paleontological resource mitigation program and shall consult with them with respect to its implementation.</li> <li>• The paleontological monitor shall be on site at all times during the original cutting of previously undisturbed sediments of high resource sensitivity formation at a subsurface depth of four feet or greater to inspect cuts for contained fossils.</li> </ul>	Less than Significant

**Table S-1 (cont.)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> <li>• If fossils are discovered, the paleontologist or monitor shall recover them. In instances where recovery requires an extended salvage time, the paleontologist or monitor shall be allowed to temporarily direct, divert, or halt ground-disturbing activities to allow recovery of fossil remains in a timely manner. Where deemed appropriate by the paleontologist or monitor, a screen-washing operation for small fossil remains shall be set up.</li> <li>• Recovered fossils, along with copies of pertinent field notes, photographs, and maps, shall be deposited in a scientific institution with paleontological collections. A final summary report that outlines the results of the mitigation program shall be completed. This report shall include discussion of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.</li> </ul>	
<b>4.7 Greenhouse Gas Emissions</b>				
Greenhouse Gas Emissions	The proposed project would not generate greenhouse gas emissions that would have a significant impact on the environment.	Less than Significant	No mitigation is necessary.	Less than Significant
Conflict with Plans or Policies	The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions.	Less than Significant	No mitigation is necessary.	Less than Significant

**Table S-1 (cont.)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>4.8 Hydrology and Water Quality</b>				
Water Quality	The proposed project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	Less than Significant	No mitigation is necessary.	Less than Significant
Groundwater Supply	The proposed project would not substantially decrease groundwater supplies or interfere with groundwater recharge.	Less than Significant	No mitigation is necessary.	Less than Significant
Drainage	The proposed project could result in impacts associated with increased impervious surfaces, runoff generation, hydromodification, and erosion/sedimentation.	Less than Significant	No mitigation is necessary.	Less than Significant
Flood Hazard Areas	The proposed project would not risk release of pollutants due to project inundation.	Less than Significant	No mitigation is necessary.	Less than Significant
Water Quality Plan	The proposed project would not conflict with or obstruct implementation of a water quality plan or sustainable groundwater management plan.	Less than Significant	No mitigation is necessary.	Less than Significant
<b>4.9 Noise</b>				
Increase in Ambient Noise	Proposed project construction could occur outside of allowable construction hours per the City of San Jacinto's Municipal Code, which would	Potentially Significant	<b>MM-NOI-1 Construction Noise Hours.</b> Construction activities in the City of San Jacinto within the construction noise time restriction areas depicted on Figure 4.9-1, <i>Construction Noise Time Restriction Areas</i> ,	Less than Significant

**Table S-1 (cont.)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	result in the generation of a substantial temporary increase in ambient noise levels in excess of standards.		shall occur only on weekdays and Saturdays between the hours of 7:00 a.m. and 7:00 p.m.	
Vibration	The proposed project would not generate excessive groundborne vibration or groundborne noise levels.	Less than Significant	No mitigation is necessary.	Less than Significant
Aircraft Noise	The proposed project would not expose people to excessive aircraft noise.	Less than Significant	No mitigation is necessary.	Less than Significant
<b>4.10 Transportation</b>				
Traffic Circulation	Proposed project construction would occur within the public right-of-way, temporarily requiring vehicle lane, bicycle lane and sidewalk closures, thus affecting the circulation system.	Potentially Significant	<b>MM-TRA-1 Traffic Control Plan.</b> Prior to the start of construction of the portions of the conveyance facilities that would be located within roadway rights-of-way, the District shall require the construction contractor to prepare a Traffic Control Plan (TCP) and coordinate with the agency of jurisdiction (City of San Jacinto or County of Riverside), as applicable, to address vehicular traffic during construction of the project within the public rights-of-way of the affected jurisdiction(s), including bicycle, pedestrian, and transit facilities. The TCP shall show all signage, striping, delineated detours, flagging operations, and any other devices that will be used during construction to guide motorists, bicyclists, and pedestrians safely through the construction area and allow for adequate access and circulation. The TCP shall also ensure that congestion and traffic delay are not substantially increased as a result of the construction activities. Further, the TCP shall include detours and/or alternative routes for bicyclists using on-street bicycle lanes as well as for pedestrians using adjacent sidewalks. The District shall provide written notice at	Less than Significant

**Table S-1 (cont.)  
 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>least two weeks prior to the start of construction to owners/occupants along roadways to be affected during construction.</p> <p>During construction, the District shall maintain continuous vehicular and pedestrian access to affected residential driveways from the public right-of-way to the private property line, except where necessary construction precludes such continuous access for reasonable periods of time. Access shall be reestablished at the end of the workday. If a driveway needs to be closed or interfered with as described above, the District shall notify the owner or occupant of the closure of the driveway at least five working days prior to the closure. The TCP shall include provisions to ensure that the construction of the conveyance pipelines do not interfere unnecessarily with the work of other agencies such as mail delivery, school buses, and municipal waste services.</p> <p>The District shall also notify local emergency responders of planned partial or full lane closures or blocked access to roadways or driveways 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 for emergency response providers adequate time to prepare for lane closures.</p>	
Vehicle Miles Traveled	The proposed project would not generate substantial vehicle miles traveled.	Less than Significant	No mitigation is necessary.	Less than Significant

**Table S-1 (cont.)  
 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
Hazardous Design Features	Proposed project construction would occur within the public right-of-way, which could result in hazardous roadway conditions.	Potentially Significant	MM-TRA-1	Less than Significant
Emergency Access	Proposed project construction would occur within the public right-of-way, which could result in inadequate emergency access.	Potentially Significant	MM-TRA-1	Less than Significant

**Table S-2  
SUMMARY OF CUMULATIVE IMPACTS**

Issue	Geographic Scope of the Cumulative Analysis	Potentially Significant Cumulative Impact?	Project Contribution
<b>4.1 Agricultural and Forestry Resources</b>			
Conversion of Prime Farmland, Unique Farmland, of Farmland of Statewide Importance	Agricultural land adjacent to and nearby the proposed project.	No	No cumulative impact.
Williamson Act Contract	Agricultural land adjacent to and nearby the proposed project.	No	No cumulative impact.
Zoning for Forest Land	There is no forest land in the project vicinity that could be cumulatively affected.	No	No cumulative impact.
Loss or Conversion of Forest Land	There is no forest land in the project vicinity that could be cumulatively affected.	No	No cumulative impact.
Conversion of Farmland to Non-agricultural Use or Forest Land to Non-forest Use	Agricultural land adjacent to and nearby the proposed project.	No	No cumulative impact.
<b>4.2 Air Quality</b>			
Conflicts with Air Quality Plans	The South Coast Air Basin (SCAB).	Yes	Not cumulatively considerable.
Air Quality Standards	The SCAB.	Yes	Not cumulatively considerable.
Sensitive Receptors	The area in the immediate vicinity of the proposed project components.	No	No cumulative impact.
Odors	The area immediately surrounding potential odor sources.	No	No cumulative impact.
<b>4.3 Biological Resources</b>			
Special Status Species	The cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and surrounding lands that support native plant and animal species.	Yes	Not cumulatively considerable with implementation of MM-BIO-1 through MM-BIO-3.
Sensitive Habitats	The cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and surrounding lands that support native habitats.	No	No cumulative impact.
Wetlands	The cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and surrounding lands that support potentially jurisdictional waters.	Yes	Not cumulatively considerable with implementation of MM-BIO-1 and MM-BIO-2.

**Table S-2 (cont.)  
SUMMARY OF CUMULATIVE IMPACTS**

Issue	Geographic Scope of the Cumulative Analysis	Potentially Significant Cumulative Impact?	Project Contribution
Wildlife Movement	The cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and surrounding lands that support native habitats and native plant and animal species.	Yes	Not cumulatively considerable.
Local Policies	The cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and surrounding lands that support native habitats, native plant and animal species, and potentially jurisdictional waters.	No	No cumulative impact.
Conservation Planning	Land within the Western Riverside Multiple Species Habitat Conservation Plan area.	No	No cumulative impact.
<b>4.4 Cultural and Tribal Cultural Resources</b>			
Historical Resources	The cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County.	Yes	Not cumulatively considerable.
Archaeological Resources	The cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and the traditional use areas of local tribes.	Yes	Not cumulatively considerable with implementation of MM-CUL-1 through MM-CUL-6.
Human Remains	The cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and the traditional use areas of local tribes.	Yes	Not cumulatively considerable with implementation of MM-CUL-7.
Tribal Cultural Resources	The cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and the traditional use areas of local tribes.	Yes	Not cumulatively considerable with implementation of MM-CUL-1 through MM-CUL-6.
<b>4.5 Energy</b>			
Wasteful, Inefficient, or Unnecessary Energy Consumption	The service areas of the energy (electricity and natural gas) providers in the project area.	No	No cumulative impact.
Conflict with Energy Plans	The service areas of the energy (electricity and natural gas) providers in the project area.	No	No cumulative impact.

**Table S-2 (cont.)  
SUMMARY OF CUMULATIVE IMPACTS**

Issue	Geographic Scope of the Cumulative Analysis	Potentially Significant Cumulative Impact?	Project Contribution
<b>4.6 Geology and Soils</b>			
Seismic Hazards	Impacts are generally site-specific and not cumulative in nature.	No	No cumulative impact.
Erosion and Sedimentation	The watersheds downstream from the project's construction sites.	No	No cumulative impact.
Geologic Instability	Impacts are generally site-specific and not cumulative in nature.	No	No cumulative impact.
Expansive Soil	Impacts are generally site-specific and not cumulative in nature.	No	No cumulative impact.
Septic Tanks	Impacts are generally site-specific and not cumulative in nature.	No	No cumulative impact.
Paleontological Resources	The cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County.	Yes	Not cumulatively considerable with implementation of MM-GEO-1.
<b>4.7 Greenhouse Gas Emissions</b>			
Greenhouse Gas Emissions	The global atmosphere.	Yes	Not cumulatively considerable.
Conflict with Plans or Policies	The global atmosphere.	Yes	Not cumulatively considerable.
<b>4.8 Hydrology and Water Quality</b>			
Water Quality	The receiving waters downstream of the project alignment and the entire San Jacinto Groundwater Basin.	No	No cumulative impact.
Groundwater Supply	The San Jacinto Groundwater Basin.	Yes	Not cumulatively considerable
Drainage	The receiving waters downstream of the project alignment.	No	No cumulative impact.
Flood Hazard Areas	The floodplains within the cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County.	No	No cumulative impact.
Water Quality Plan	The receiving waters downstream of the project alignment and the entire San Jacinto Groundwater Basin.	No	No cumulative impact.

**Table S-2 (cont.)  
SUMMARY OF CUMULATIVE IMPACTS**

Issue	Geographic Scope of the Cumulative Analysis	Potentially Significant Cumulative Impact?	Project Contribution
<b>4.9 Noise</b>			
Increase in Ambient Noise	The immediate vicinity of the proposed project locations and any adjacent noise sensitive land uses.	Yes	Not cumulatively considerable with implementation of MM-NOI-1.
Vibration	The immediate vicinity of the proposed project locations and any adjacent noise sensitive land uses.	No	No cumulative impact.
Aircraft Noise	Projects located within the mapped aircraft noise contours of the Hemet-Ryan Airport.	No	No cumulative impact.
<b>4.10 Transportation</b>			
Traffic Circulation	The circulation network within and adjacent to the city of San Jacinto.	Yes	Not cumulatively considerable with implementation of MM-TRA-1.
Vehicle Miles Traveled	The circulation network within and adjacent to the city of San Jacinto.	Yes	Not cumulatively considerable.
Hazardous Design Features	The circulation network within and adjacent to the city of San Jacinto.	Yes	Not cumulatively considerable with implementation of MM-TRA-1.
Emergency Access	The circulation network within and adjacent to the city of San Jacinto.	Yes	Not cumulatively considerable with implementation of MM-TRA-1.

This page intentionally left blank.

This page intentionally left blank.

# 1.0 INTRODUCTION

---

This Environmental Impact Report (EIR) analyzes the environmental effects associated with the Eastern Municipal Water District (District) Purified Water Replenishment (PWR) Project, referred to herein as “proposed project” or “project.” The project proposes to construct and operate facilities that would replenish the San Jacinto Upper Pressure Groundwater Management Zone (SJUPMZ) aquifer with a combination of recycled water and advanced treated water to reduce reliance on imported water sources, provide improved drought resiliency, and potentially improve the quality of the groundwater basin utilized by the District.

As described in the California Environmental Quality Act (CEQA) Statutes and Guidelines, public agencies are charged with the duty to avoid or substantially lessen significant environmental effects, with consideration of other conditions, including economic, social, technological, legal, and other benefits. This EIR is an informational document. As required by CEQA, this EIR:

- Assesses the potentially significant direct and indirect environmental effects of the proposed project as well as the potentially significant cumulative impacts that could occur from implementation of the project;
- Describes potential feasible means of avoiding or substantially lessening significant adverse impacts;
- Identifies any significant and unavoidable adverse impacts that cannot be mitigated to below a less than significant level; and
- Evaluates a range of reasonable and feasible alternatives to the project that would avoid or substantially lessen any significant adverse environmental effects.

## 1.1 PURPOSE AND INTENDED USE OF THE DRAFT EIR

The District, as the Lead Agency, has prepared this Draft EIR in accordance with CEQA, as codified in California Public Resources Code (PRC) Section 21000 et. seq., and the State *CEQA Guidelines* in the Code of Regulations, Title 14, Division 6, Chapter 3. The EIR process and the information it generates are used for the following purposes:

- To give responsible and trustee agencies, other governmental bodies, and the public the opportunity to provide input to the decision-making process;
- To provide public agencies with the information necessary for them to determine if they have jurisdiction over some aspect of implementation of the project, and, if so, to identify any requirements they may have for project permits, approvals, licenses, or other entitlements;
- To inform the public as well as the decision makers of the potential consequences of the implementation of the project, and alternatives, and to assist the District in making decisions and taking actions to avoid or reduce environmental effect to a less-than-significant level; and
- To assist the public in understanding the expected environmental effects and how decision-makers plan to respond and mitigate such effects.

## 1.2 PRIOR ENVIRONMENTAL REVIEW

The proposed project would utilize the Mountain Avenue West Recharge Basin, which is currently under construction, where treated water would be stored, percolate into the belowground aquifer, and eventually be recovered for use as potable water. The Mountain Avenue West Recharge Basin is part of the District's San Jacinto Valley Water Banking – Enhanced Recharge and Recovery Program (ERRP) which has been previously analyzed in compliance with CEQA in an EIR that was certified by the District Board of Directors on June 20, 2018 (State Clearinghouse [SCH] # 2015071002). Because the potentially significant impacts (and mitigation measures where necessary) of the San Jacinto Valley Water Banking ERRP, including the Mountain Avenue West Recharge Basin, have been identified in a prior CEQA document, this component of the proposed project is not included in the analysis in this EIR.

## 1.3 ENVIRONMENTAL REVIEW PROCESS

### 1.3.1 Lead, Responsible, and Trustee Agencies

The District has the principal responsibility of carrying out or approving the project and is therefore considered to be the Lead Agency for this EIR. CEQA requires the Lead Agency to consider the information in the EIR prior to project approval and make findings regarding each significant impact identified in the EIR. Public agencies, other than the lead agency, that have discretionary authority over a project, are considered responsible agencies. For example, the State Water Resources Control Board (SWRCB) is considered a responsible agency. Federal agencies are not responsible agencies under CEQA; however, federal agencies may also have discretionary authority over a project. A trustee agency is a state agency that has jurisdiction by law over natural resources affected by a project that are held in trust for the people of the state of California. As listed in *CEQA Guidelines* Section 15386, trustee agencies include the California Department of Fish and Wildlife (CDFW), the State Lands Commission (SLC), the State Department of Parks and Recreation, and the University of California. For the proposed project, the applicable trustee agency would be CDFW. For a list of agency permits and approvals for the project, please see Table 1-2, *Anticipated Regulatory Permits and Approvals*.

### 1.3.2 Notice of Preparation/Scoping Process of the Draft EIR

In accordance with Section 15082 of the *CEQA Guidelines*, the District circulated a Notice of Preparation (NOP) of a Draft EIR on April 2, 2020 for review by applicable local, state, and federal agencies and the public. The NOP was published in The Press-Enterprise newspaper and on the District's website and submitted to the State Clearinghouse for distribution to relevant state agencies.

The NOP provided a general description of the facilities associated with the project, a summary of the probable environmental effects of the project to be addressed in the Draft EIR, and figures showing the project location. The NOP provided the public and interested public agencies with the opportunity to review the facilities to be constructed as part of the project and to provide comments or concerns on the scope and content of the Draft EIR.

State law mandates that responses to the NOP must be sent at the earliest possible date but postmarked within 30 days from distribution of the NOP; however, in light of the COVID-19 pandemic, which may have limited ability for NOP review and comments and which resulted in the District not being able to hold a scoping meeting, responses postmarked within 60 days from distribution of the NOP, or through June 1, 2020, were accepted. During the scoping period, four comment letters were

received from CDFW, the California Department of Water Resources (DWR) Division of Safety of Dams (DSOD), the Native American Heritage Commission (NAHC), and the Riverside County Flood Control and Water Conservation District. The comment letters are included in Appendix A along with the NOP. The main issues raised in the comment letters, and where they are discussed in the EIR, are shown in Table 1-1, *NOP Comment Letter Issue Areas*.

**Table 1-1  
NOP COMMENT LETTER ISSUE AREAS**

<b>Agency of Letter Received</b>	<b>Issue Area(s)</b>	<b>Where Addressed in EIR</b>
Native American Heritage Commission (NAHC)	1. The project could impact tribal cultural resources; in which case it would be considered to have a significant effect on the environment.	1. Section 4.4.4.2, <i>Issue 2: Archaeological Resources</i> , and Section 4.4.4.4, <i>Issue 4: Tribal Cultural Resources</i>
	2. The proposed project may be subject to Assembly Bill (AB) 52 and Senate Bill (SB) 18. Consultation per AB 52 and SB 18 with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the project is recommended to occur as early as possible to avoid inadvertent discoveries of human remains and best protect tribal cultural resources.	2. Section 4.4.4.4, <i>Issue 4: Tribal Cultural Resources</i>
	3. The project should perform a cultural resources assessment that includes an archaeological record search at the California Historical Research Information System (CHRIS); a report detailing the findings and recommendations of the records search and field survey; a Sacred Lands File Search; and a mitigation and monitoring reporting program plan.	3. Section 4.4, <i>Cultural Resources and Tribal Cultural Resources</i> , and Appendix D
Department of Water Resources (DWR) Division of Safety and Dams (DSOD)	1. The project includes bioretention basins and evaporation ponds that may be subject to state jurisdiction for dam safety.	1. The project does not include construction of dams (see Chapter 2.0, <i>Project Description</i> ).
Riverside County Flood Control and Water Conservation District	1. The project is located within the Riverside County Flood Control and Water Conservation District's San Jacinto Valley Master Drainage Plan area. Portions of the project which may conflict with the Master Drainage Plan include Ramona Expressway, State Street, Olmstead Street, the Casa Loma Canal at San Jacinto Reservoir, and the proposed brine ponds.	1. Section 4.8.4.3, <i>Issue 3: Drainage</i>
	2. The project may impact existing Riverside County Flood Control and Water Conservation District easement, which would require encroachment permits.	2. Section 1.4, <i>Required Public Action and Approvals</i>

**Table 1-1 (cont.)  
NOP COMMENT LETTER ISSUE AREAS**

Agency of Letter Received	Issue Area(s)	Where Addressed in EIR
	<p>3. The Riverside County Flood Control and Water Conservation District is a permittee under the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). The project will need to demonstrate consistency with the MSHCP for work activities within Riverside County Flood Control and Water Conservation District right-of-way/easements.</p>	<p>3. Section 4.3.4.6, <i>Issue 6: Conservation Planning</i></p>
<p>California Department of Fish and Wildlife (CDFW)</p>	<p>1. The project may impact environmental resources that are rare or unique to the region. A complete assessment of flora and fauna within the project footprint should be included with particular emphasis on identifying rare, threatened, endangered, or other sensitive species and their associated habitats.</p>	<p>1. Section 4.3, <i>Biological Resources</i></p>
	<p>2. The project may result in direct, indirect, and cumulative impacts to biological resources.</p>	<p>2. Section 4.3, <i>Biological Resources</i>, and Section 6.3.3, <i>Biological Resources</i></p>
	<p>3. The project should identify mitigation measures that are appropriate and adequate to avoid or minimize potential impacts to biological resources, including fully protected species, sensitive plant communities, California Species of Special Concern, and nesting birds protected under the Migratory Bird Treaty Act (MBTA). Mitigation should empathize avoidance and impact reduction. For unavoidable impacts, habitat restoration, enhancement, and/or preservation should be evaluated.</p>	<p>3. Section 4.3.4.1, <i>Issue 1: Special Status Species</i></p>
	<p>4. If the project has the potential to result in “take” of state-listed California Endangered Species Act (CESA) species, a CESA Incidental Take Permit should be obtained.</p>	<p>4. Section 4.3.4.1, <i>Issue 1: Special Status Species</i></p>
	<p>5. The project may result in impacts to San Bernardino kangaroo rat, which has been documented in the project area and is a candidate species for listing under CESA.</p>	<p>5. Section 4.3.4.1, <i>Issue 1: Special Status Species</i></p>
	<p>6. The project area is within the MSHCP but the District is not a signatory to the MSHCP. Policies and procedures of the MSHCP may apply to the project if the District chooses to participate in the MSHCP as a Participating Special Entity.</p>	<p>6. Section 4.3.4.6, <i>Issue 6: Conservation Planning</i></p>

**Table 1-1 (cont.)  
 NOP COMMENT LETTER ISSUE AREAS**

Agency of Letter Received	Issue Area(s)	Where Addressed in EIR
	7. The project may be subject to notification to CDFW pursuant to Fish and Game Code section 1602. The project may require a Lake and Streambed Alteration Agreement for substantial adverse effects to fish and wildlife resources.	7. Section 4.3.4.3, <i>Issue 3: Wetlands</i>

### 1.3.3 Public Review of the Draft EIR

When a Draft EIR is submitted to the State Clearinghouse for review by state agencies, the public review period shall not be less than 45 days, unless the SCH approves a shorter period. During public review, the Draft EIR is circulated to responsible agencies and trustee agencies with resources affected by the project, state agencies with jurisdiction by law, federal agencies, and interested parties and individuals. The purpose of public and agency review of the Draft EIR includes sharing expertise, disclosing agency analysis, checking for accuracy, detecting omissions, discovering public concerns, and soliciting comments. In reviewing the Draft EIR, reviewers should focus on the sufficiency of the document in identifying and analyzing potentially significant effects on the environment and avoiding or mitigating the significant effects on the proposed project.

### 1.3.4 Final EIR and the Public Hearing Process

Following completion of the public review period for the Draft EIR, a Final EIR will be prepared to address the written comments received on the Draft EIR during the public review period. Responses to comments made by public agencies on the Draft EIR will be provided by the District at least 10 days prior to the scheduled District Board of Directors hearing to consider certification of the Final EIR and approval or denial of the proposed project.

As the decision-making body of the lead agency the District Board of Director’s will consider the Final EIR for certification per *CEQA Guidelines* Section 15090. The District Board of Director’s will certify that it has reviewed and considered the information contained in the Final EIR, that the Final EIR reflects the lead agency’s independent judgement and analysis, and that the Final EIR has been completed in compliance with CEQA. Once the Final EIR has been certified, the lead agency may proceed to consider approval of the proposed project. Prior to approval, the lead agency must make written findings regarding each significant environmental effect identified in the Draft EIR in accordance with *CEQA Guidelines* Section 15091.

CEQA requires that the lead agency neither approve nor implement a project unless the project’s significant environmental effects have been reduced to a less-than-significant level, essentially “eliminating, avoiding, or substantially lessening” the expected impacts. If the lead agency approves the project despite residual significant impacts that cannot be mitigated to a less-than-significant level, the agency must state the reasons for its action in writing in a Statement of Overriding Considerations (SOC). As defined in *CEQA Guidelines* Section 15093, a SOC balances the benefits of a project against its unavoidable environmental consequences. The SOC must be included in the record of the proposed project approval.

After the District Board of Directors has approved the proposed project, the lead agency will file a Notice of Determination with the Riverside County Clerk and the State Clearinghouse per *CEQA Guidelines* Section 15094.

## 1.4 REQUIRED PUBLIC ACTIONS AND APPROVALS

The adoption of the proposed project requires the affirmative vote from the District’s Board of Directors; however, implementation of the proposed project may require that the District obtain approval, permits, licenses, certifications, or other entitlements from various state and local agencies, as shown in Table 1-2, *Anticipated Regulatory Permits and Approvals*.

**Table 1-2  
ANTICIPATED REGULATORY PERMITS AND APPROVALS**

<b>Responsible Agency</b>	<b>Permit/Approval</b>
<b>State</b>	
California Department of Transportation (Caltrans)	Encroachment Permit*
State Water Resources Control Board Division of Drinking Water	Title 22 Engineering Report, Summary of Public Hearing, Conditional Approval
State Water Resources Control Board/Regional Water Quality Control Board	NPDES – Industrial General Permit, <sup>1</sup> Storm Water Pollution Prevention Plan (SWPPP)
	NPDES – Construction General Permit, SWPPP
Regional Water Quality Control Board	Producer/User Water Recycling Requirements
	Order No. R8-2020-0006, NPDES No. CAG998001, General Waste Discharge Requirements for Insignificant Threat Discharges to Surface Waters
	Title 27 – Environmental Protection – Division 2, Solid Waste – Waste Management Units, Facilities and Disposal Sites
<b>Regional</b>	
South Coast Air Quality Management District	Permits to Construct and Operate
<b>Local</b>	
County of Riverside and/or Division of Drinking Water	Cross-connection and Backflow Prevention
County of Riverside	Encroachment Permit(s)
Riverside County Flood Control and Water Conservation District	Encroachment Permit*
City of San Jacinto	Building Permits*
	Encroachment Permits
Private Property Owner(s)	Temporary Easements*

<sup>1</sup> This would not be a new permit. The project’s Advanced Water Treatment Facility (AWTF), which requires the permit, would be added to the existing permit for the San Jacinto Valley Regional Water Reclamation Facility (SJRWRWF).

\* if necessary

Additionally, an application for a Title XVI Water Reclamation and Reuse Grant has been submitted to the U.S. Department of the Interior (DOI) Bureau of Reclamation (BOR) for the project in order to pursue funding through the WaterSMART Program. Therefore, documentation would be required to identify project impacts subject to federal regulations compliant with the National Environmental Policy Act (NEPA).

## 1.5 ORGANIZATION OF THE EIR

The content and format of this EIR are designed to meet the requirements of CEQA. The EIR includes the following chapters:

- **Executive Summary.** Summarizes the proposed project, environmental impacts that would result from implementation of the project, recommended mitigation measures that would avoid or reduce impacts, and the levels of significance of impacts both before and after mitigation. Also identifies areas of controversy known to the lead agency and issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.
- **Chapter 1, Introduction.** Provides an introduction and overview describing the purpose and intended use of the EIR, prior environmental review related to the project, the EIR's compliance with CEQA, and the scope and organizational format of the EIR. This section also includes a list of public actions and approvals that would be required to approve the proposed project by the lead agency and other responsible and trustee agencies.
- **Chapter 2, Project Description.** Provides a detailed description of the proposed project, including the project's background, location, major objectives, purpose and need, components, and phasing.
- **Chapter 3, Environmental Setting.** Provides a description of the physical environmental conditions in the vicinity of the project as they exist at the time the NOP was published. This setting establishes baseline physical conditions by which the significance of potential impacts is evaluated.
- **Chapter 4, Environmental Analysis.** Contains project-level analysis for the various environmental resource topics. The subsection for each environmental resource topic contains a description of the existing conditions, regulatory framework, impacts, and mitigation measures.
- **Chapter 5, Environmental Effects Found Not to be Significant.** Contains discussion of environmental resource topics for which no significant impacts would occur.
- **Chapter 6, Cumulative Impact Analysis.** Contains a discussion of cumulative impacts for each environmental resource topic covered in Chapter 4.
- **Chapter 7, Other CEQA-Related Sections.** Provides discussions required by *CEQA Guidelines* Sections 15126 and 15128, including growth-inducing impacts, significant environmental effects, and significant irreversible environmental changes that would result from implementation of the proposed project.
- **Chapter 8, Alternatives.** Describes alternatives to the proposed project that could avoid or substantially lessen significant effects and evaluates their environmental effects in comparison to the proposed project.
- **Chapter 9, References.** Provides a list of the references used in preparation of this EIR.

- **Chapter 10, List of Preparers.** Provides a list of the EIR preparers and persons consulted during EIR preparation.

Supporting materials and technical appendices include the following:

- **Appendix A** Notice of Preparation and Comments
- **Appendix B** Air Quality and GHG Emissions Technical Report
- **Appendix C** Biological Technical Report
- **Appendix D** Cultural Resources Survey
- **Appendix E** Preliminary Design Report

The Final EIR will contain the Mitigation Monitoring and Reporting Program (MMRP) for the Project, the comments received on the Draft EIR and responses, and any changes or clarifications to the Draft EIR that were made in response to public comments.

## 2.0 PROJECT DESCRIPTION

---

This section provides a description of the project, including discussion of the project background and context, location, objectives, purpose and need, components, and construction methods.

### 2.1 PROJECT BACKGROUND AND CONTEXT

The District was organized as a municipal water district in 1950 for the primary purpose of importing Colorado River water to its service area to augment local water supplies. Today, the District is California's sixth-largest water retail agency, providing water, wastewater, and recycled water services to 825,000 people in a 555-square mile service area located in western Riverside County (Figure 2-1, *District Service Area*). Approximately 49 percent of the District's water supply is provided by the Metropolitan Water District of Southern California through the Colorado River Aqueduct and State Water Project. The remaining 51 percent of the District's potable water demand is supplied by District-owned groundwater wells located mostly in the Hemet and San Jacinto areas. The District's water supply is a critical issue as there are limited local surface and groundwater resources.

In 2011, the District completed the Integrated Resources Plan (IRP) to address future water supply challenges and develop an overall strategy for future water supply. The IRP is a flexible long-term strategy for the development of water supplies, implementation of key facilities, and execution of inter-agency agreements needed to expand and operate the District's water, recycled water, and wastewater system. The IRP recommended strategies for both expanded local water supplies and imported water supplies. The proposed PWR project, which would use recycled water to recharge groundwater basins, was recommended as a key local water supply strategy for the District's future water supply portfolio.

The PWR project began with the preparation of the SJUPMZ Indirect Potable Reuse Phase I Study (CDM Smith 2014). The Phase I Study included an evaluation of five PWR project alternatives for recharge into the SJUPMZ and provided recommendations related to recycle water treatments, recharge method and locations, conveyance, and brine management for each alternative. Two alternatives were recommended in the Phase I Study: (1) a blend of recycled water and reverse osmosis (RO) permeate and (2) a phased approach with Phase I including only recharge of recycled water and Phase II including recharge of a blend of recycled water and RO permeate.

Following the Phase I Study, a PWR Program Definition Study (Phase II Study) was prepared and included a comparison of projects for both the SJUPMZ and the Perris South Management Zone (PSMZ; CDM Smith 2016). The Phase II study evaluated five alternatives with varying recharge into the SJUPMZ and/or the PSMZ. Recharge into the SJUPMZ with a blend of recycled water and RO permeate was recommended.

The District subsequently established the goal of a two-phase implementation program with a Phase I recharge capacity of 4,000 acre-feet per year (AFY) and a Phase II expansion of 11,000 AFY for a 15,000-AFY total recharge PWR project. The recharge flow would consist of RO permeate and tertiary media filtered recycled water (tertiary recycled water).

## 2.2 PROJECT LOCATION

The proposed project would be located at multiple sites predominantly within the city of San Jacinto, with one location just outside the eastern city limits in unincorporated Riverside County (Figure 2-2, *Regional Location*, and Figure 2-3, *Project Components*). The project's proposed aboveground facilities would be located adjacent to the northern boundary of the District's existing San Jacinto Valley Regional Water Reclamation Facility (SJVRWRF) at 770 North Sanderson Avenue and at the District's existing Alessandro Ponds site near the intersection of West Ramona Parkway and North Vernon Avenue. The project has two belowground pipeline segments. One of the project's belowground pipelines, the advanced treated water pipeline, would slipline an existing 18-inch pipeline with a new 16-inch pipeline following a route northeast from the SJVRWRF in an unpaved roadway, northeast along North Lyon Avenue, and southeast along Ramona Expressway, where it would turn off northeast to near the District's existing Alessandro Ponds site. The project's second pipeline would convey blended advanced treated water and tertiary recycled water and run from near the Alessandro Ponds site southeast along Ramona Expressway to the District's existing Mountain Avenue West Recharge Basin at the intersection of Ramona Expressway and East Esplanade Court (see Figure 2-3).

## 2.3 PROJECT OBJECTIVES

Specific key objectives of the proposed project are to:

- Produce advanced treated water and combine it with tertiary recycled water for recharge into, and replenishment of, the SJUPMZ;
- Contribute to establishing a local, long-term sustainable water supply for the District's service area;
- Provide increased water supply reliability during droughts and emergencies;
- Increase the amount of groundwater that can be pumped seasonally through recharge and storage of a combination of advanced treated water and tertiary recycled water; and
- Utilize recycled water in an environmentally responsible manner (i.e., no recycled water is discharged outside of the District's service area).

## 2.4 PURPOSE AND NEED OF THE PROPOSED PROJECT

The proposed project would occur as part of the District's Groundwater Reliability Plus (GRP) initiative. GRP encompasses the District's actions and investments aimed at improving the quality and quantity of water in local groundwater basins, also called aquifers. The benefits of GRP include improved groundwater quality and reduced water salinity, higher groundwater levels resulting in lower pumping costs, increased groundwater availability, and drought-resilient supply reliability. The District previously initiated the San Jacinto Valley Water Banking ERRP as part of the GRP initiative. The purpose of the San Jacinto Valley Water Banking – ERRP is to aid in enhancing current and future water supplies by recharging imported water into the local groundwater basin. Groundwater produced (extracted) by the San Jacinto Valley Water Banking – ERRP would be used within the District's service area. The groundwater could also be made available to the District's sub-agencies or other regional water agencies through an exchange, with no physical export of local supplies.

The proposed project would replenish the SJUPMZ aquifer with a combination of recycled water and advanced treated water to reduce reliance on imported water sources, provide improved drought resiliency, and potentially improve the quality of the groundwater basin utilized by the District. The project would work in conjunction with the San Jacinto Valley Water Banking – ERRP by utilizing the existing Mountain Avenue West Recharge Basin, which was developed as part of the San Jacinto Valley Water Banking – ERRP, for recharge of the proposed project’s combined tertiary recycled water and advanced treated water.

## 2.5 DESCRIPTION OF PROPOSED PROJECT COMPONENTS

The proposed project would include the following components:

- Construction of an Advanced Water Treatment Facility (AWTF) near the District’s existing SJVRWRF;
- Construction of a brine management system north of the AWTF site that would include five interconnected evaporation ponds with a total evaporation surface area of approximately 20 acres;
- Construction of Alessandro Blending Station facilities that would blend advanced treated water and tertiary recycled water;
- Relining of an existing 18-inch-diameter pipeline that would convey advanced treated water from the AWTF site to the proposed Alessandro Blending Station; and
- Construction of a new 36-inch-diameter pipeline that would convey blended water from the Alessandro Blending Station to the existing Mountain Avenue West Recharge Basin.

Project components are shown on Figure 2-3 and are described in detail below.

### 2.5.1 Advanced Water Treatment Facility

The proposed AWTF would be constructed on a portion of an approximately five-acre site located adjacent to the northern boundary of the existing SJVRWRF (see Figure 2-4, *Advanced Water Treatment Facility Conceptual Site Plan*). The AWTF site would initially (during Phase I) include an approximately 20,800-gross-square-foot (GSF) Process and Control Building (see Figure 2-5, *Process and Control Building Conceptual Elevations*) that would be divided into two main areas: a control area and a process area. A breakdown of the anticipated space requirements of the Process and Control Building are shown in Table 2-1, *Process and Control Building Space Requirements*.

**Table 2-1  
 PROCESS AND CONTROL BUILDING SPACE REQUIREMENTS**

<b>Component</b>	<b>Area (GSF)</b>
<b>Control Area</b>	
Public Area	3,050
Administrative Staff Area	1,850
<i>Control Area Subtotal</i>	<i>4,900</i>
<b>Process Area</b>	
Major Process Area	10,200
Ancillary Facilities Area	3,700
Chemical Pump Area	2,000
<i>Process Area Subtotal</i>	<i>15,900</i>
<b><i>Process and Control Building Total</i></b>	<b><i>20,800</i></b>

GSF = gross square feet

The control area would contain a public area and a District administrative staff area. The public area would include an entry lobby, an education/exhibit area, a conference and public meeting room, restrooms, and a private District outreach staff person’s office. The administrative staff area would contain an operations supervisor’s office, control room, break room, server room, storage room, and mechanical/rise room. Within the process area, the major process area would house a membrane filtration (MF) system and a high-recovery RO facility that would be used for the advanced treatment of recycled water. The ancillary facilities area would contain the electrical, MF compressor, and building mechanical rooms. The chemical pump area would include the AWTF’s chemical pumps. Upon implementation of Phase II of the project, the process area would accommodate a 10,400-GSF expansion. Other proposed facilities at the AWTF site outside of the Process and Control Building would include a chemical storage facility, emergency generator, standby generator, transformer, four new pump stations, paved access with parking, and two stormwater bioretention basins.

During operation of the AWTF, the tertiary recycled water produced at the SJVRWRF would be further treated through the new MF/RO process, which would reduce total organic carbon (TOC), totaled dissolved solids (TDS), and nitrogen concentrations creating advanced treated water, or what is referred to as “RO permeate.” The tertiary recycled water would first be pumped from the existing SJVRWRF site via an influent pump station to automatic strainers at the AWTF. Before reaching the strainers, the water would undergo pretreatment chemical injections to remove free chlorine and control biological fouling<sup>1</sup> of the MF system. The automatic strainers would further protect the downstream MF system by removing large particles from the water. Once at the MF system, water would be treated utilizing microfiltration or ultrafiltration membrane systems and stored in a MF break tank. Water from the tank would then be transferred to the RO system where dissolved organic material would be removed via the RO process.

## **2.5.2 Brine Management System**

Concentrated brine generated during the RO process would be managed and stored using a system of five interconnected evaporation ponds that would have a total surface area of approximately 20 acres and be located north of the proposed AWTF site (see Figure 2-6, *Brine Management System Conceptual*

<sup>1</sup> As related to the proposed project, biological fouling, also known as biofouling, is the accumulation of microorganisms on a membrane surface, which reduces membrane permeability and function.

*Site Plan*). The surfaces areas, depths, and volumes of the five ponds are shown in Table 2-2, *Brine Ponds Characteristics*.

**Table 2-2  
 BRINE PONDS CHARACTERISTICS**

Pond	Surface Area <sup>1</sup> Acres	Surface Area <sup>1</sup> Square Feet	Maximum Operating Depth <sup>2</sup> (ft)	Total Depth <sup>3</sup>	Maximum Operating Volume (MG)	Total Volume (MG)
A	2.94	128,100	8.3	11	7.95	10.54
B	4.80	208,900	8.3	11	12.97	17.19
C	2.28	99,300	8.3	11	6.17	8.17
D	4.42	192,700	8.3	11	11.97	15.86
E	5.61	244,100	8.3	11	15.16	20.09
Total	20.05	873,100	8.3	11	54.22	71.85

<sup>1</sup> Area at mid height of the pond.

<sup>2</sup> Does not account for sloping of the pond floor.

<sup>3</sup> As measured from the top of the embankment. Includes maximum operating depth, 1,000-year, 24-hour storm of 8.3 inches, and 2-foot freeboard.

ft = feet; MG = million gallons

The brine solution would be pumped from the AWTF to the brine management system where it would be managed by evaporating the water and leaving the concentrated brine for storage in the ponds. Floating mechanical spray evaporators would be used within Ponds B, D, and E to enhance natural evaporation. Spray evaporators work by pumping water from a pond through a series of nozzles into an air flow stream that generates and discharges a fine mist plume into the air. The fine composition of the mist increases the surface area of the water stream, which substantially accelerates the evaporation rate of the water droplets. Drift from the mechanical spray evaporators would be contained within the ponds and access roads that would be constructed between the individual ponds. Additional access roads would be provided on the perimeter of the ponds and would be elevated higher than the inner access roads to capture drift, retain on-site stormwater runoff within the brine evaporation pond facility, and prevent off-site stormwater runoff from inundating the ponds.

The three semi-enhanced evaporation ponds (Ponds B, D, and E) would be the primary ponds receiving brine concentrate from the AWTF. The water level in each pond would be monitored and the selection of the ponds to be filled would be based on the water level in each of the ponds. Because Ponds B, D, and E would be the primary ponds receiving brine concentrate and would evaporate pond water faster than Ponds A and C, they would accumulate salts more rapidly than Ponds A and C. When the salt concentration in the pond water of Ponds B, D, and E reaches a desired level, inter-pond transfer pumps would be used to transfer highly concentrated salt water from Ponds B, D, and E to Ponds A and C, where the highly concentrated salt water would continue evaporating to achieve a slurry-like brine solution.

Each of the five ponds would include a leak detection monitoring system with a Leachate Collection and Removal System (LCRS), a Vadose Zone Monitoring System (VZMS), and a groundwater detection monitoring program. The LCRS would consist of an upper layer primary liner, a bottom layer drain liner, and a sump to collect any liquid that leaks through the upper primary liner. The VZMS would consist of a gravel layer and lined sump directly below the LCRS sump and along the centerline of each pond where leaks are most likely to occur. The VZMS would be designed for moisture detection and monitoring,

collection, and removal. Additional monitoring would occur for groundwater at various nearby monitoring stations.

### **2.5.3 Alessandro Blending Station**

Advanced treated water from the AWTF and tertiary recycled water from the SJVRWRF would be conveyed, via two separate existing pipelines (one of which would be sliplined as part of the project), to the Alessandro Blending Station where they would be blended in-pipe before the combined flow is conveyed to the Mountain Avenue West Recharge Basin, via a new pipeline to be constructed as part of the project. The blending facility pipes, including the two inflow pipes, connection pipes, and one outflow pipe, would be located on an approximately 48-foot by 34-foot concrete equipment pad southeast of the existing pressure regulating station downstream of the Alessandro Pump Station (see Figure 2-7, *Alessandro Blending Station Conceptual Site Plan*). A pressure regulating valve would be provided at the blending facility for the option to discharge advanced treated water into the adjacent existing Alessandro Ponds forebay for operational storage.

### **2.5.4 Conveyance Pipelines**

The project would require pipelines to convey advanced treated water from the AWTF to the Alessandro Blending Station as well as blended water from the Alessandro Blending Station to the Mountain Avenue West Recharge Basin (see Figure 2-3). Advanced treated water would be conveyed from the AWTF to the Alessandro Blending Station via an existing 4.1-mile (21,700-linear foot) 18-inch diameter recycled water pipeline that extends east from the southern side of the SJVRWRF to approximately the intersection of Alessandro Avenue North and Ramona Expressway (see to Figure 2-8, *Conceptual Conveyance Pipeline Alignments*). The existing cement-mortar-lined steel pipeline would be sliplined with new 16-inch diameter high density polyethylene (HDPE) pipe. The space between the existing 18-inch diameter pipe and the new 16-inch-diameter HDPE pipe would be grouted. The advanced treated water would be conveyed from the AWTF to the start of the 18-inch-diameter pipeline to be sliplined (located on the southern side of the SJVRWRF) via a pipeline that would be installed within the SJVRWRF.

Blended water from the Alessandro Blending Station would be conveyed to the Mountain Avenue West Recharge Basin via a new approximately 2.7-mile (14,200-linear-foot) 36-inch-diameter HDPE pipeline that would be constructed within the eastern shoulder of Ramona Expressway (see Figure 2-8). The new pipeline would be located under four feet of cover. Isolation valves, air valves, and blow-offs would be included along the new pipeline per District standards.

### **2.5.5 Mountain Avenue West Recharge Basin**

Combined flows from the Alessandro Blending Facility would be conveyed, via the above-mentioned proposed 36-inch-diameter pipeline, to the District's existing Mountain Avenue West Recharge Basin, where the water would be stored, percolate into the aquifer, and eventually be recovered for use as potable water. The Mountain Avenue West Recharge Basin is part of the San Jacinto Valley Water Banking – ERRP, which was previously evaluated in a separate EIR (refer to Section 1.2).

## 2.6 DRAINAGE PLAN

The Preliminary Design Report for the project, attached to this EIR as Appendix E, notes that rainwater from the Process and Control Building would be collected in gutters and discharged at ground level. This rainwater, along with other miscellaneous site drainage, would be collected in a site drainage system and discharged to two on-site stormwater bioretention basins. The drainage system may consist of a combination of pipes, catch basins, manholes, dry conveyance/storage swales, overflow structures and wet retention/detention basins. Capture runoff would be routed to the stormwater bioretention basins. One basin may be located south of the Process and Control Building while the second basin may be located between the AWTF and the brine evaporation ponds. Final design of the stormwater management system would be coordinated with the stormwater management system from the future solar site. In addition, the brine evaporation basins would be designed to withstand a potential 1,000-year storm.

All applicable results and recommendations from the Preliminary Design Report would be incorporated into the associated final design documents to address identified potential hydrologic concerns, including, but not necessarily limited to drainage alteration, runoff rates/amounts, stormwater management and hydromodification. The final project design documents would also encompass applicable standard design and construction practices from sources including NPDES (with related requirements to be included in applicable engineering/design drawings and/or construction contract specifications). Remedial measures typically associated with identified potential hydrologic concerns, pursuant to applicable regulatory and industry standards, includes: (1) minimize the installation of new impervious surfaces (e.g., by surfacing with pervious pavement, gravel or decomposed granite); (2) use flow regulation facilities (e.g., detention/retention basins) and velocity control structures (e.g., riprap dissipation aprons at drainage outlets), to maintain pre-development runoff rates and amounts for design storm events, if applicable; and (3) utilize additional and/or enlarged drainage facilities to ensure adequate on- and off-site storm drain system capacity, if applicable.

## 2.7 GEOTECHNICAL DESIGN CONSIDERATIONS

The project would incorporate the recommendations provided in the Geotechnical Engineering Services Report prepared for the project by Kleinfelder (2017). This report confirmed that the site is geotechnically suitable for the proposed project provided the recommendations in the report are incorporated into project design and construction. The AWTF site is located in a seismically active region subject to ground shaking and is underlain by undocumented fill, which is highly compressible and susceptible to excessive differential settlement. The report therefore recommends the overexcavation and recompaction of upper soils to support shallow spread foundations for the structures associated with the AWTF.

## 2.8 PROJECT PHASING

As mentioned above in Section 2.1, the District established a goal of a two-phase implementation program with a Phase I recharge capacity of 4,000 AFY and a Phase II expansion of 11,000 AFY for a 15,000-AFY total recharge project. With design flows of a 50 percent advanced treated water and 50 percent tertiary recycled water blend, Phase I would involve 2,000 AFY for both advanced treated water and tertiary recycled water, and Phase II would involve 7,500 AFY for both. Table 2-3, *PWR Project Capacity Goals*, summarizes the PWR project's recharge capacity goals.

**Table 2-3  
 PWR PROJECT CAPACITY GOALS**

	<b>Phase I</b>	<b>Phase II</b>
Total Recharge Capacity (AFY)	4,000	15,000
Tertiary Recycled Water Contribution (AFY)	2,000	7,500
Advanced Treated Water Contribution (AFY)	2,000	7,500

AFY = acre-feet per year

Accordingly, the AWTF would be sized to accommodate 2.0 million gallons per day (MGD) for Phase I and 7.5 MGD for Phase II. Phase I of the project is anticipated to be operational in 2023 and Phase II of the project is anticipated to be operational in 2035.

## **2.9 CONSTRUCTION METHODS**

Construction of Phase I of the project would involve three general components: (1) construction of the AWTF; (2) construction of the brine management system; and (3) construction and modification of the conveyance pipelines and Alessandro Blending Station. Construction of Phase II of the project would involve expansion of the AWTF. Construction equipment would be used at the various sites and along the pipeline alignments. Excavators, loaders, forklifts, pavers, generators, rollers, air compressors, backhoes, dozers, graders, dump trucks, compactors, welders, pumps, and cranes would be the primary equipment used for project construction.

Phase I construction of the AWTF would generally consist of site preparation, grading, installing underground utilities, constructing the Process and Control Building and associated facilities, paving the roadway and parking lot, and applying architectural coatings. Phase II construction at the AWTF site would involve the 10,400-GSF expansion of the process area of the Process and Control Building.

The primary construction activity for the brine management system would be excavation and grading to construct the ponds, berms, and access roads. The ponds would be excavated to a depth of approximately five feet, resulting in 170,500 cubic yards (CY) of cut. The excavated material would be temporarily stockpiled on District-owned land northwest of the brine management system site. This material would then be used to construct the berms and access roads in between and around the ponds, resulting in balanced site cut/fill with no export of material required. During the temporary stockpile period, best management practices (BMPs) for dust control and erosion prevention would be implemented, such as covering the stockpile with erosion control blankets, installing fiber rolls, and/or applying soil binders.

Construction at both the AWTF site and brine management system would require the installation of connection pipes to adjacent facilities.

Modification of the existing 18-inch-diameter pipeline would involve sliplining the existing pipeline with the new 16-inch-diameter pipeline. The sliplining process would require access pits at various locations along the pipeline alignment, including within the right-of-way of Ramona Expressway, for inserting and receiving the sliplining pipe. Depending on location, the insertion pits would range from 25 to 55 feet in length and 10 feet in width. The receiving pits are anticipated to be approximately 15 feet in length and 10 feet in width. The depth of the insertion and receiving pits would vary based on the existing pipeline, the majority of which is located at a depth of approximately 5.5 feet.

The new 36-inch pipeline would be constructed via open trench methods, with an approximate trench width of five feet. The majority of the trench would be located within the dirt shoulder along the east side of Ramona Expressway. In general, open-cut trenches with laid back walls would be used. In areas that are confined due to existing utilities, roadway intersections, easements, or right-of-way where there is insufficient lateral space to allow for laid back trench walls, trench-box excavation would be used to keep the trench as narrow as feasible. Approximately 80 feet of the 36-inch pipeline would be constructed per day on average.

The total duration for construction of Phase I is anticipated to be approximately one and a half years (April 2022 through August 2023), with the individual construction component durations anticipated to be 15 months for the AWTF, 12 months for the brine management system, and 12 months for the conveyance pipelines and Alessandro Blending Station. Construction of the three Phase I components would overlap. Construction of Phase II is anticipated to last approximately one year (January through December 2024). For the purposes of analysis, an anticipated construction schedule, duration, and equipment list for each project component is provided in Table 2-4, *Construction Schedule and Equipment*.

**Table 2-4  
CONSTRUCTION SCHEDULE AND EQUIPMENT**

<b>Project Component</b>	<b>Activity</b>	<b>Equipment</b>	<b>Construction Period Start</b>	<b>Construction Period End</b>
<b>PHASE I</b>				
AWTF	Site Preparation	2 Tractor/Loader/Backhoe	June 2022	June 2022
	Grading	1 Dozer; 1 Grader; 1 Excavator; 1 Dump Truck	June 2022	July 2022
	Underground Utilities	2 Excavator; 2 Tractor/ Loader/Backhoe	July 2022	August 2022
	Construction	1 Crane; 2 Excavator; 2 Tractor/ Loader/Backhoe; 1 Boom Forklift; 1 Roller; 1 Dump Truck; 1 Plate Compactor	August 2022	July 2023
	Paving	2 Roller; 2 Paver	August 2023	August 2023
	Architectural Coatings	2 Air Compressor	August 2023	August 2023
Brine Management System	Site Preparation	2 Tractor/Loader/Backhoe	June 2022	July 2022
	Grading	2 Dozer; 2 Grader; 2 Excavator; 2 Tractor/Loader/Backhoe; 3 Dump Truck	July 2022	December 2022
	Underground utilities/ infrastructure (lining system)	1 Crane; 2 Excavator; 2 Tractor/ Loader/Backhoe	January 2023	May 2023
Conveyance Pipelines*	Insertion/Receiving Pits Excavation	1 Excavator; 1 Tractor/Loader/Backhoe	April 2022	March 2023
	Pipeline Sliplining	1 Excavator; 1 Generator; 1 Welder	April 2022	March 2023
	Trenching	1 Excavator; 1 Tractor/Loader/Backhoe	April 2022	March 2023
	Pipeline Installation	1 Excavator; 1 Tractor/Loader/Backhoe; 1 Generator; 1 Welder	April 2022	March 2023

**Table 2-4 (cont.)  
 CONSTRUCTION SCHEDULE AND EQUIPMENT**

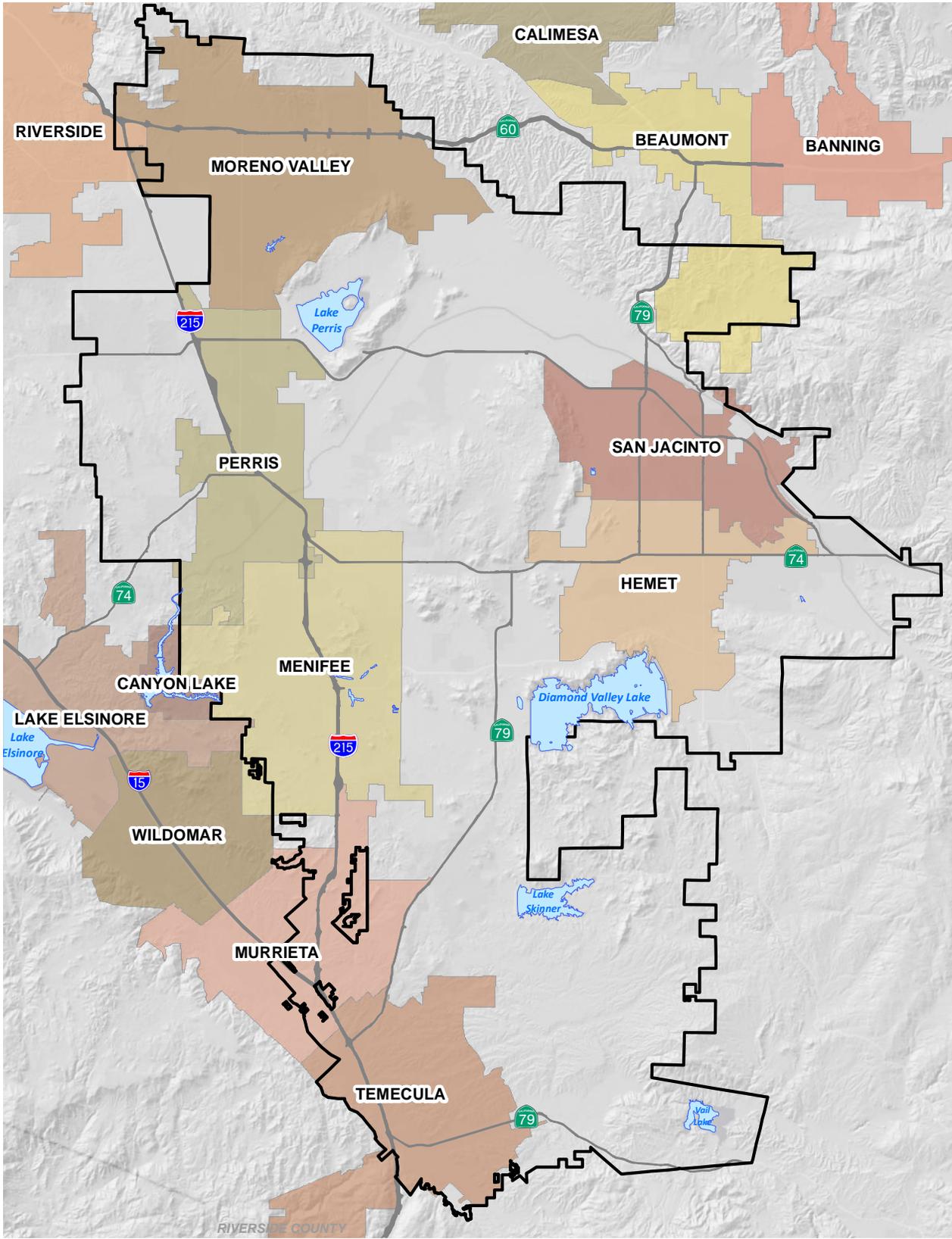
<b>Project Component</b>	<b>Activity</b>	<b>Equipment</b>	<b>Construction Period Start</b>	<b>Construction Period End</b>
<b>PHASE II</b>				
AWTF Expansion	Underground Utilities	1 Excavator; 1 Tractor/Loader/Backhoe	January 2034	February 2034
	Construction	1 Crane; 2 Excavator; 2 Tractor/Loader/Backhoe; 1 Boom Forklift; 1 Roller; 1 Dump Truck; 1 Plate Compactor	February 2034	November 2034
	Architectural Coatings	2 Air Compressor	December 2034	December 2034

\*Based on the linear alignment, it is assumed that these activities are not phased, but rather occur simultaneously.

### 2.9.1 Project Construction Features/Practices

Project construction would include the following features/practices:

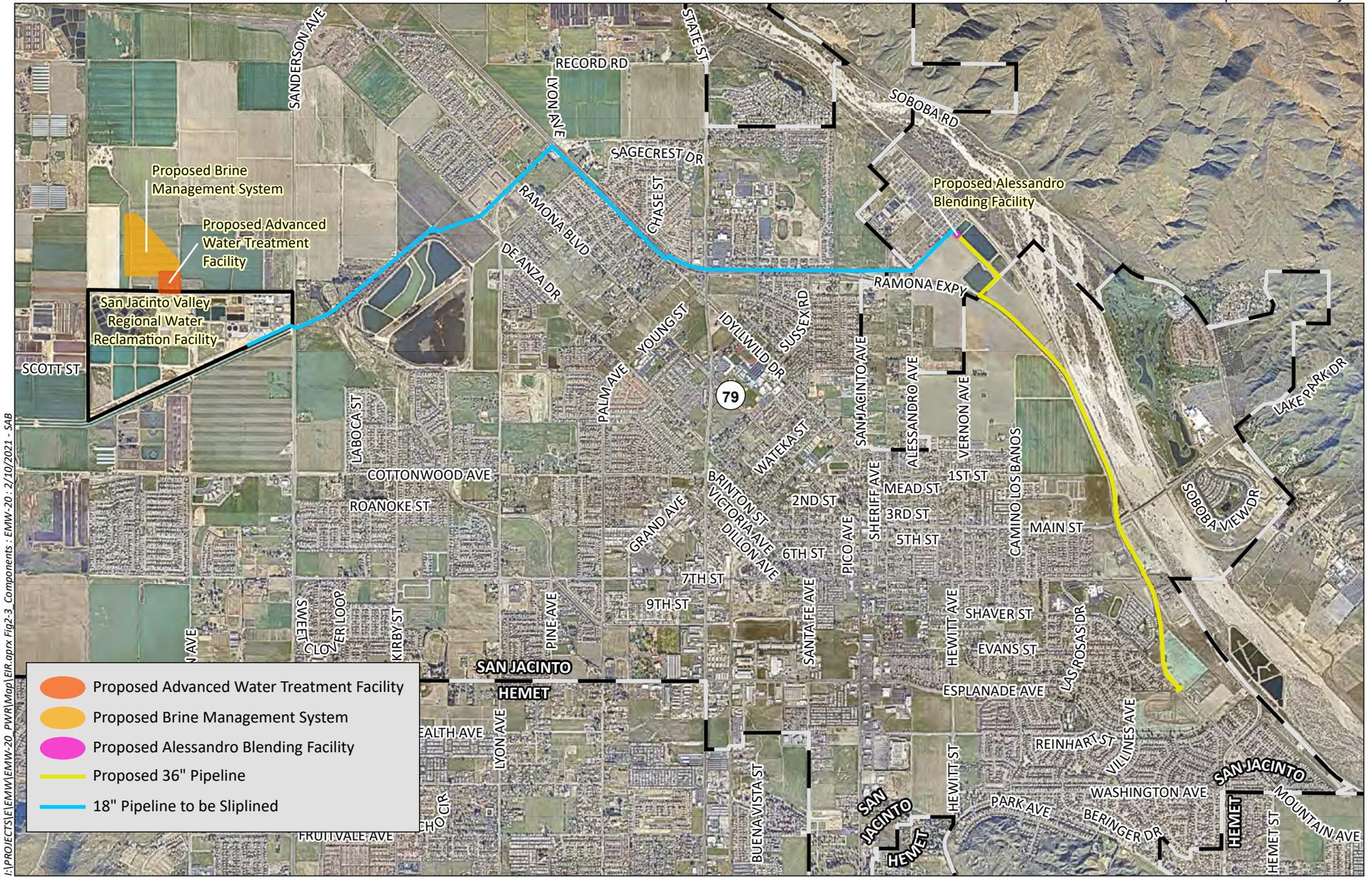
- Implement standard dust control measures in accordance with South Coast Air Quality Management District (SCAQMD) Rule 403, such as watering two times daily during excavation.
- Implement measures included within the project’s Geotechnical Engineering Services Report (Kleinfelder 2017), including, but not limited to, the following:
  - Strip existing vegetation, compressible topsoil, debris, and oversized materials;
  - Over-excavate at the AWTF site to remove undocumented fill that is not suitable to support the proper foundations; and
  - Scarify (break up), moisture-condition, and compact engineered fill.
- Implement a Storm Water Pollution Prevention Plan (SWPPP) and associated BMPs during construction.



I:\PROJECTS\EMW\EMW-20\_PWR\Map\EIR\_Fig2-1\_Regional.indd EMW-20 5/26/2020 - SAB

Source: CDMSmith (2020)



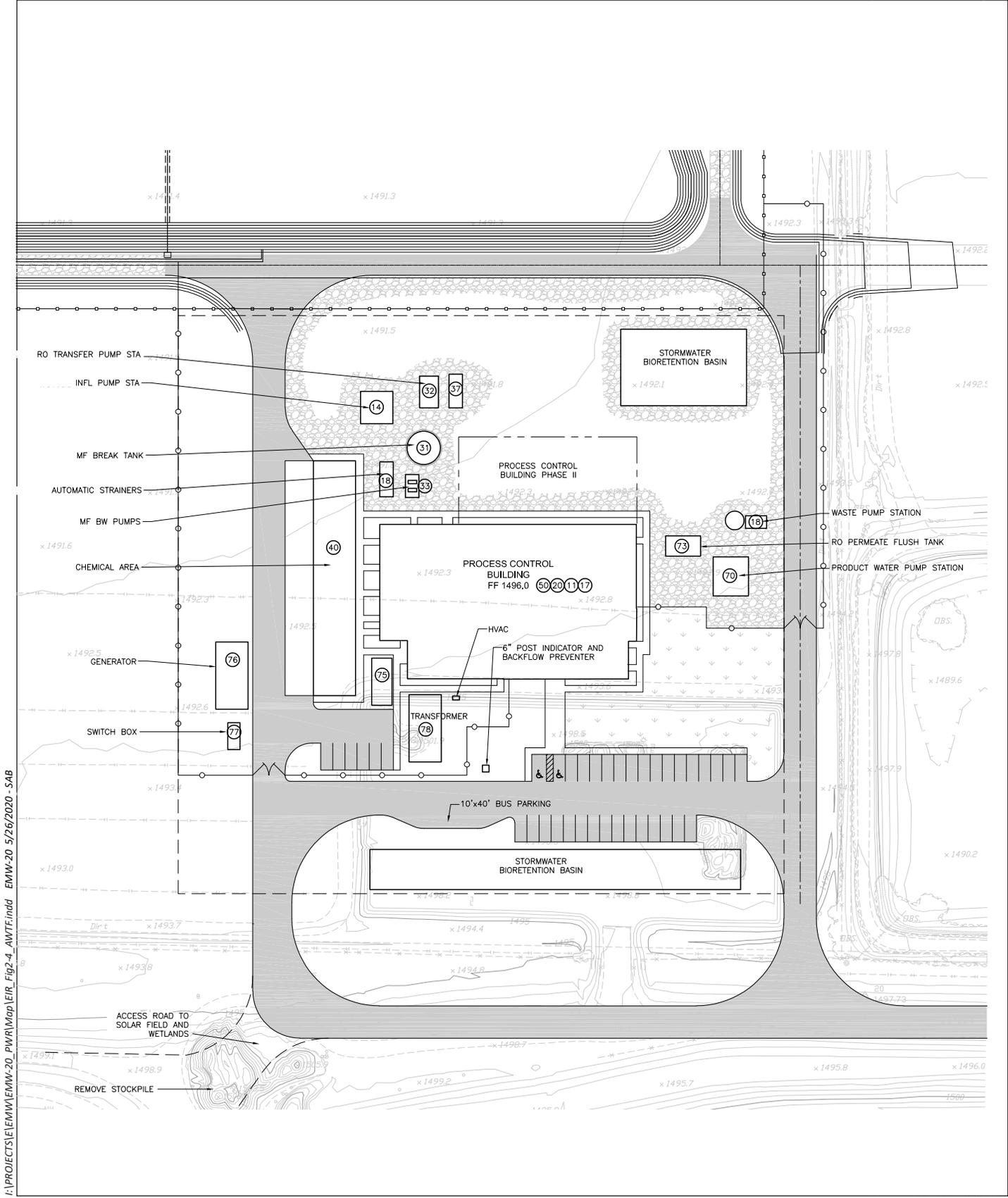


I:\PROJECTS\EMM\EMM-20\_PWRI\Map\EIR.aprx Fig-3 Components : EMM-20 : 2/10/2021 - SAB

- Proposed Advanced Water Treatment Facility
- Proposed Brine Management System
- Proposed Alessandro Blending Facility
- Proposed 36" Pipeline
- 18" Pipeline to be Sliplined

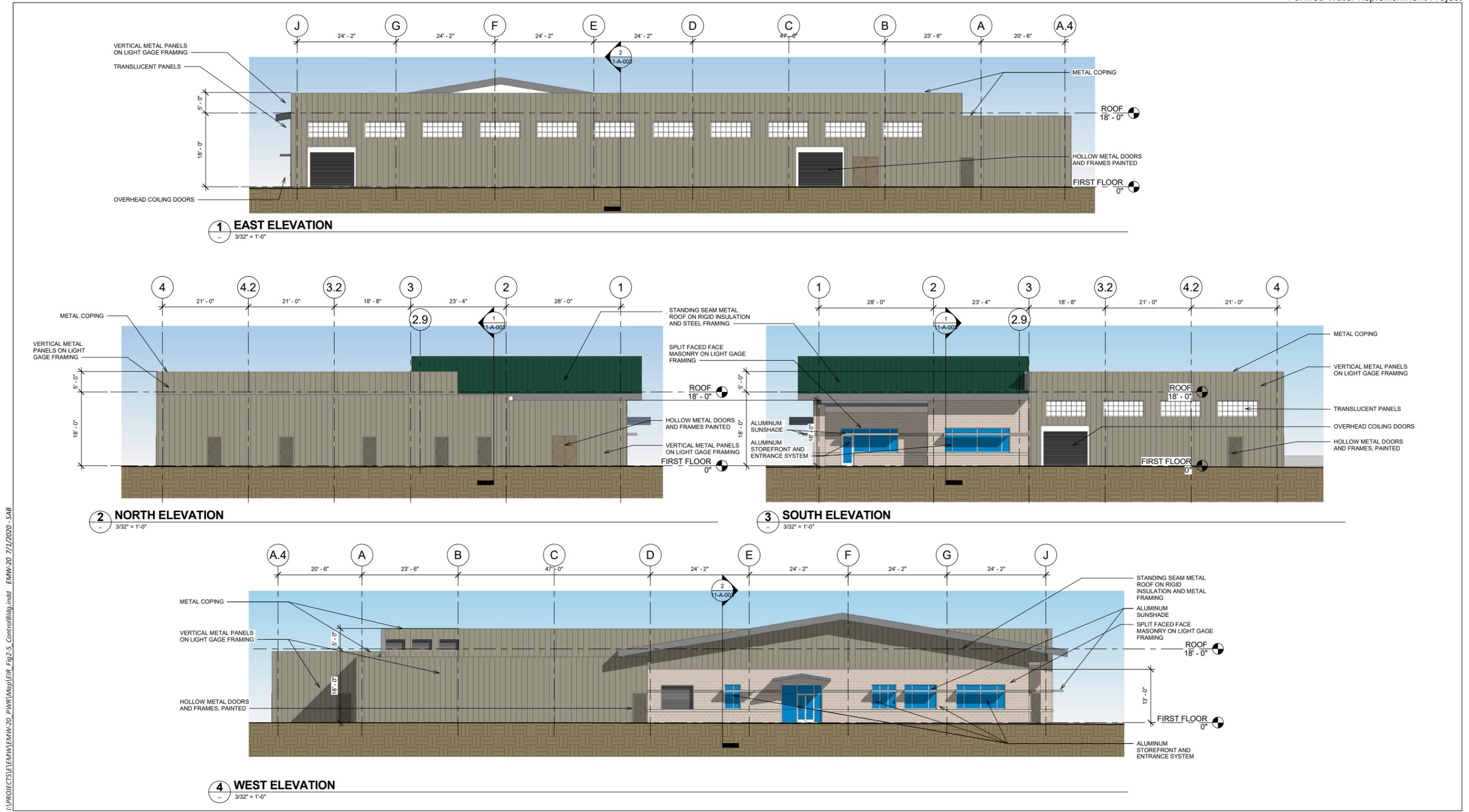


Source: Aerial (NearMap, 2020)



I:\PROJECTS\EMW\EMW-20\_PWR\Map\EIR\_Fig2-4\_AWTE.mxd EMW-20\_5/26/2020 - SAB

Source: CDMSmith (2020)

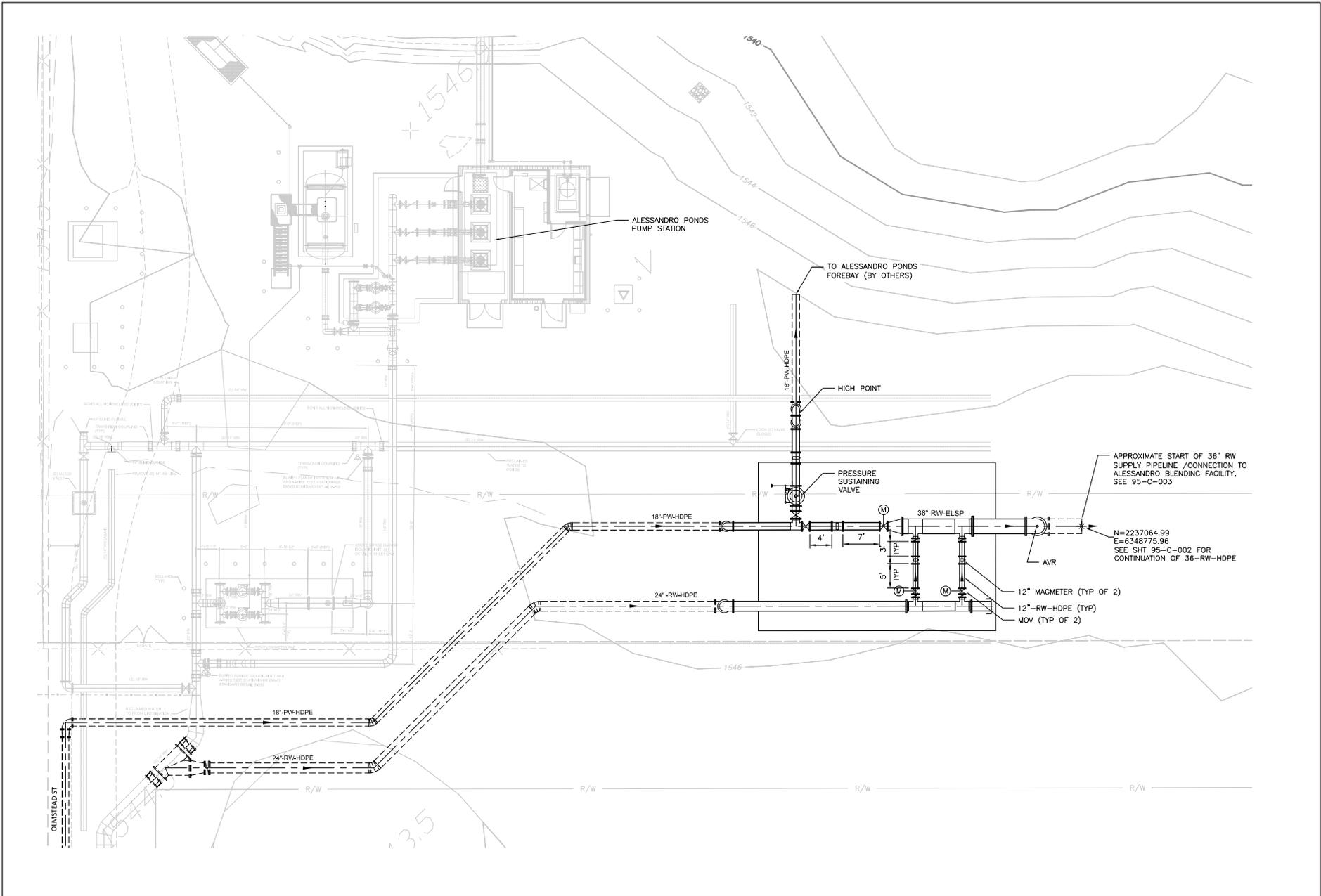


I:\PROJECTS\EMW\EMW-20\_PWR\Map\EIR\_Fig2-5\_ControlBldg.indd EMW-20\_7/1/2020\_548

Source: CDMSmith (2020)



I:\PROJECTS\EMW\EMW-20\_PWR\Map\EIR\_Fig2-7\_Alessandro.indd EMW-20 5/26/2020 - SAB



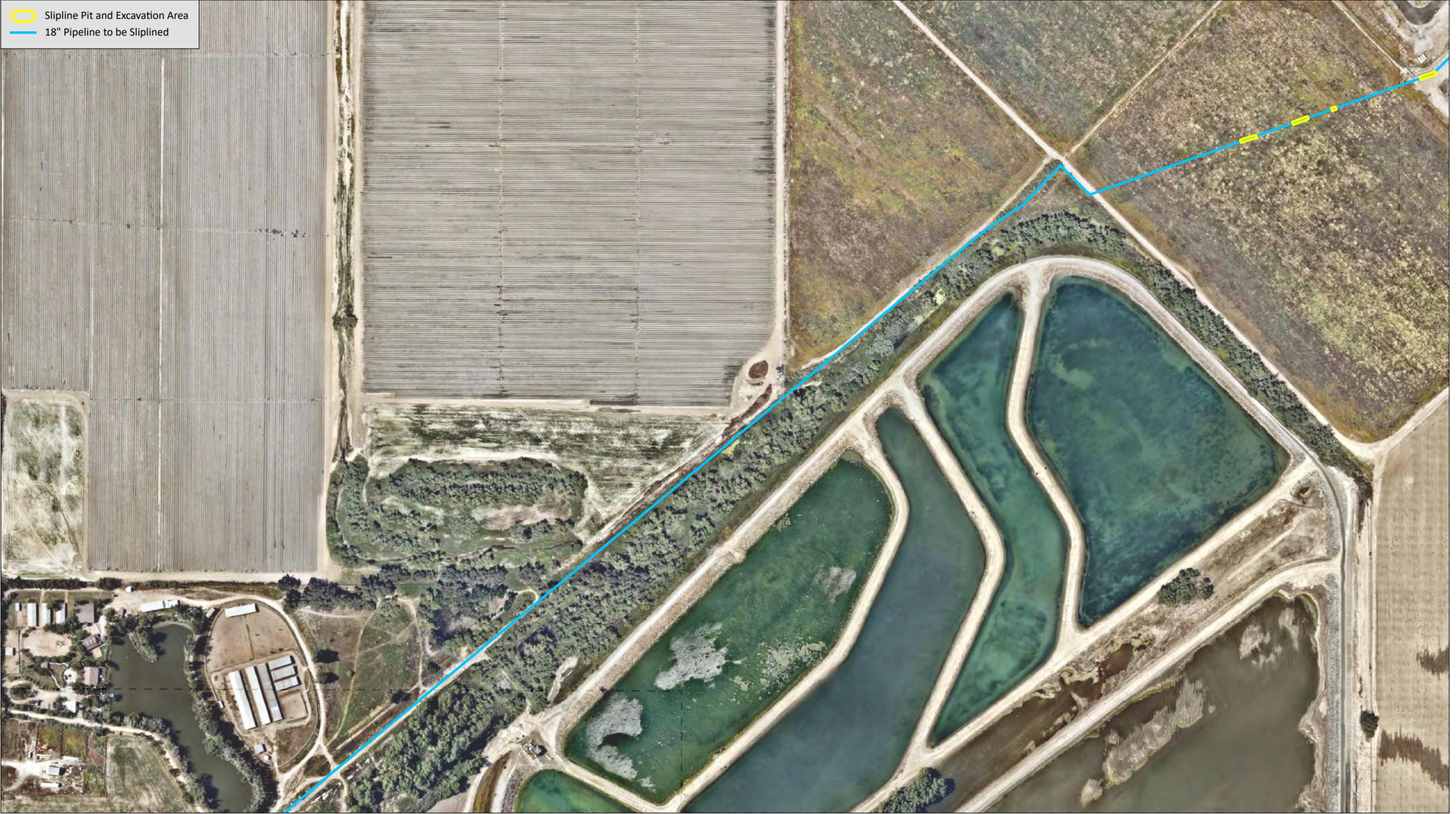
Source: CDMSmith (2020)



I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER.aprx Fig.2-8 Conveyance Pipelines : EMW-20 : 2/10/2021 - SAB



Source: Aerial (NearMap, 2020)



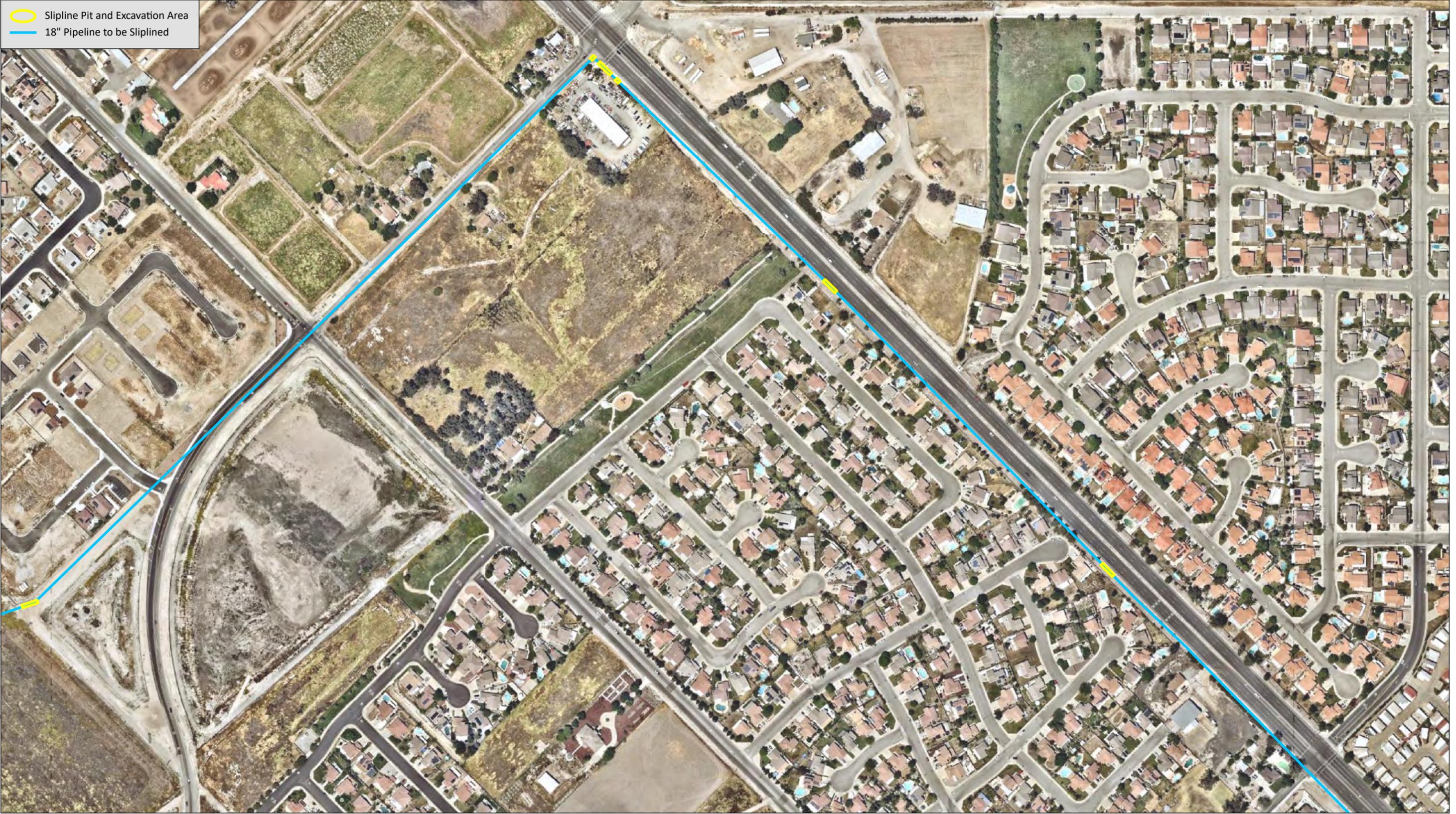
○ Slipline Pit and Excavation Area  
— 18" Pipeline to be Sliplined

I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\Map\Fig2-8\_ConveyancePipelines : EMW-20 : 2/10/2021 - SAB

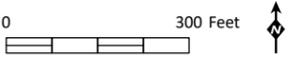


Source: Aerial (NearMap, 2020)

 Slipline Pit and Excavation Area  
 18" Pipeline to be Sliplined



I:\PROJECTS\EMM\EMW-20\_PWR\Map\LEIR\aprx\_Fig2-8\_ConveyancePipelines : EMW-20 : 2/10/2021 - SAB



Source: Aerial (NearMap, 2020)



I:\PROJECTS\EMW\EMW-20\_PWR\Map\LEIR\aprx\_Fig2-8\_ConveyancePipelines : EMW-20 : 2/10/2021 - SAB

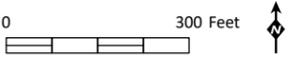


Source: Aerial (NearMap, 2020)

-  Slipline Pit and Excavation Area
-  Proposed 36" Pipeline
-  Proposed Alessandro Blending Facility
-  18" Pipeline to be Sliplined



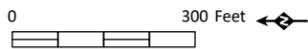
I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\aprx\_Fig2-8\_ConveyancePipelines : EMW-20 : 2/10/2021 - SAB



Source: Aerial (NearMap, 2020)



I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\aprx\_Fig2-8\_ConveyancePipelines : EMW-20 : 2/10/2021 - SAB



Source: Aerial (NearMap, 2020)

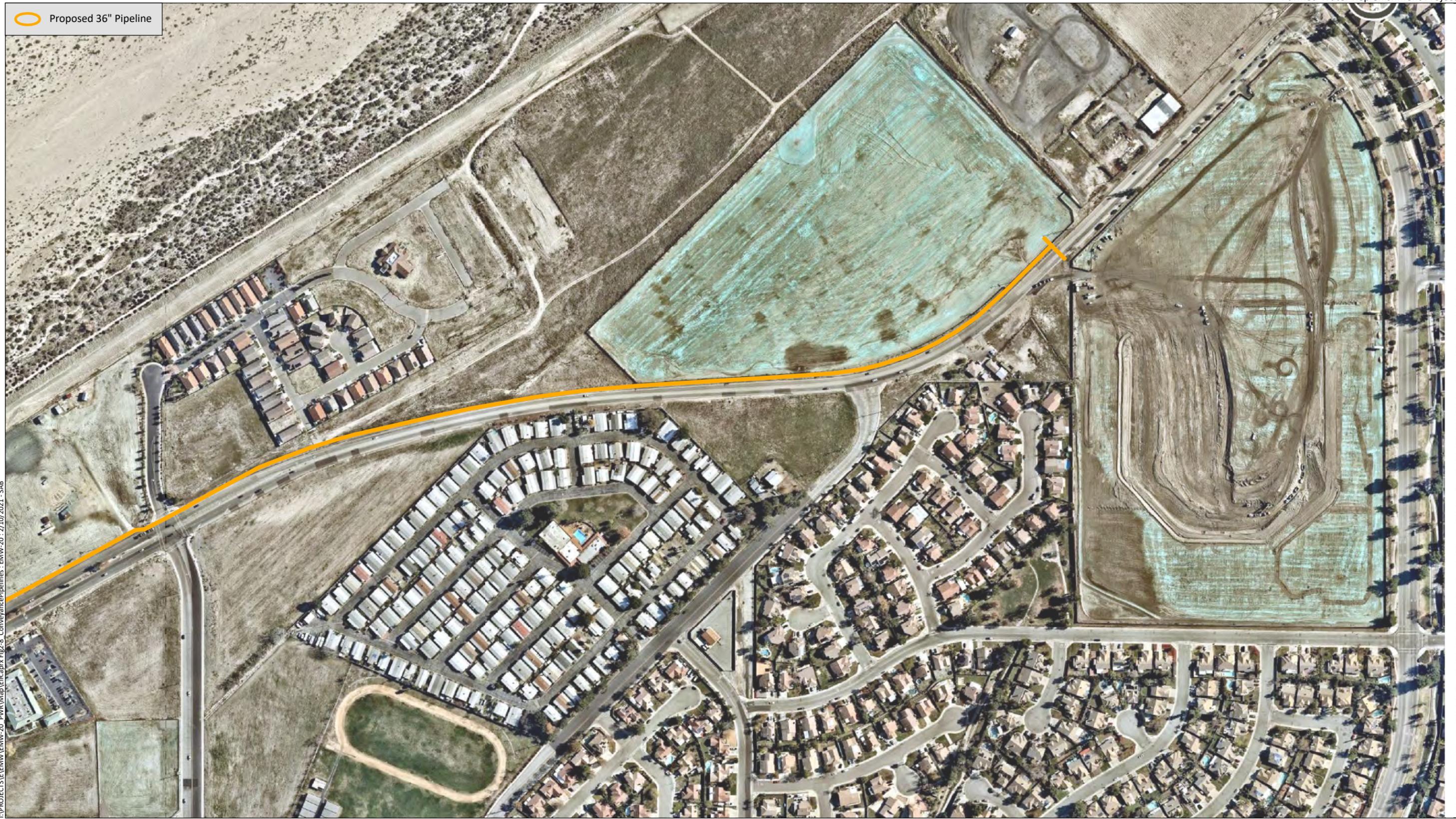


I:\PROJECTS\EMW\EMW-20\_PWR\Map\EIR\aprx\Fig2-8\_ConveyancePipelines : EMW-20 : 2/10/2021 - SAB

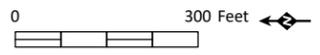
0 300 Feet

Source: Aerial (NearMap, 2020)

Proposed 36" Pipeline



I:\PROJECTS\EMM\EMW-20\_PWR\Map\LEIR\aprx\_Fig2-8\_ConveyancePipelines : EMW-20 : 2/10/2021 - SAB



Source: Aerial (NearMap, 2020)

## **3.0 ENVIRONMENTAL SETTING**

---

### **3.1 DISTRICT SETTING**

The District provides water, wastewater, and recycled water services to 825,000 people in a 555-square mile service area located in western Riverside County, approximately 75 miles east of the City of Los Angeles (refer to Figure 2-1). The District's service area includes retail customers located within the cities of Canyon Lake, Hemet, San Jacinto, Menifee, Moreno Valley, Murrieta, Perris, and Temecula, as well as the unincorporated communities of French Valley, Good Hope, Homeland, Lakeview, Mead Valley, Murrieta Hot Springs, Nuevo, Romoland, Valle Vista, and Winchester. The District also supplies water on a wholesale basis to the cities of Hemet, San Jacinto, and Perris; Lake Hemet Municipal Water District; Nuevo Water Company; Rancho California Water District; and Western Municipal Water District.

Water demands within the District's service area are primarily associated with residential, industrial, and agricultural uses. The majority of the demand is from residential uses, and this demand is anticipated to increase as development continues in Riverside County. Approximately 49 percent of the District's potable water demand is supplied by imported water from the Metropolitan Water District of Southern California through its Colorado River Aqueduct and its connections to the State Water Project. The remaining 51 percent is supplied by District-owned groundwater wells, the majority of which are located in the Hemet and San Jacinto area. The District also has wells in the Moreno Valley, Perris Valley, and Murrieta areas.

Groundwater production is a primary reliable water supply located within the District's service area. The northern portion of the District's service area lies within the San Jacinto Groundwater Basin, which is a portion of the greater Santa Ana River Basin. The San Jacinto Groundwater Basin includes eight groundwater management zones, as defined by the Santa Ana Regional Water Quality Control Board. The eight groundwater management zones that are located in the District's service area include the Perris North Management Zone, PSMZ, Lakeview/Hemet North Management Zone, Menifee Management Zone, Hemet South Management Zone, San Jacinto Lower Pressure Management Zone, SJUPMZ, and Canyon Management Zone. As discussed in Chapter 2.0, the proposed project would produce advanced treated water and combine it with tertiary recycled water for recharge into, and replenishment of, the SJUPMZ.

### **3.2 PROJECT AREA CHARACTERISTICS**

The proposed project would be located within the eastern portion of the District's service area, predominantly within the city of San Jacinto, with one portion of the project alignment within unincorporated Riverside County (refer to Figure 2-2 and Figure 2-3).

The project area is located within the San Jacinto Valley (SJV), which is a flat inland area situated at the western base of the San Jacinto Mountains. The SJV includes the cities of San Jacinto and Hemet, as well as several unincorporated communities. Diamond Valley Lake lies approximately six miles to the south and Perris Reservoir is approximately nine miles to the northwest. Elevations in the project area range from approximately 1,615 feet above mean sea level (AMSL) near the eastern project extent to approximately 1,480 feet AMSL in the western portions of the project area. The project area is characterized by agriculture, single-family residential development, and undeveloped lands, with

additional land uses adjacent to or nearby the project alignment including small areas of commercial development, parks, Mt. San Jacinto College, and the Soboba Springs Golf Course. State Route (SR) 79 runs north-south through the San Jacinto Valley, connecting SR 74 in the south to Interstate (I-) 10 in the north.

The project area is within the South Coast Air Basin (SCAB), which consists of all of Orange County and the non-desert regions of Los Angeles County, Riverside County, and San Bernardino County. The SCAB is a coastal plain with connecting broad valleys and low hills that is bound by the Pacific Ocean to the southwest and high mountains around the rest of its perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light, average wind speeds.

The usually mild climatological pattern of the SCAB is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. Winds in the project area are usually driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes. At night, the wind generally slows and reverses direction traveling toward the sea. Local canyons can also alter wind direction, with wind tending to flow parallel to the canyons. The vertical dispersion of air pollutants in the SCAB is hampered by the presence of persistent temperature inversions. High pressure systems, such as the semi-permanent high-pressure zone in which the SCAB is located, are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, and resulting in the formation of subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog.

The highest monthly average maximum temperature (98.9°F) in the project area, as measured at the Hemet climatic station, occurs in August, and the lowest monthly average minimum temperature (37.3°F) occurs in January (Western Regional Climate Center [WRCC] 2016). The average annual precipitation is approximately 11 inches, most of which occurs in the winter months (WRCC 2016).

Vegetation communities and/or land uses that occur within the project alignment include Southern willow scrub, open water, Riversidian sage scrub, field/pasture, disturbed habitat, and urban/developed uses. The project is located within the boundaries of the adopted Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

The project area has an extensive cultural history characterized by early Native American occupation associated with the San Dieguito Tradition, then the Encinitas Tradition, and later the San Luis Rey complex; Spanish exploration and mission development; Mexican independence from Spain and the subsequent dominance of a civilian population and cattle ranching; and the cession of California to the United States, which resulted in high population growth and a predominantly agricultural society. Prominent historic-age resources in the project area include the Colorado River Aqueduct and San Diego Aqueduct.

Geologically, the project alignment and surrounding areas are situated within the Peninsular Ranges geomorphic province, which is a region characterized by northwest-trending mountain ranges and intervening, generally parallel, long valleys, formed from faults branching from the San Andreas Fault. The province spans from the Transverse Ranges in the north to the southern tip of Baja California. The

province varies in width from approximately 30 to 100 miles and is bounded by the Colorado Desert to the east.

Hydrologically, the project is located in the San Jacinto River Watershed, which is a tributary to the Santa Ana River and encompasses 780 square miles on the western flanks of the San Jacinto Mountains. Lakes and reservoirs within the San Jacinto River Watershed include Lake Elsinore, Canyon Lake, Lake Perris, and Mystic Lake. Major tributaries include Bautista Creek, Poppet Creek, Potrero Creek, Perris Valley Drain, and Salt Creek. The 293-square mile San Jacinto Groundwater Basin underlies the project alignment and surrounding areas of the San Jacinto, Perris, Moreno, and Menifee Valleys in western Riverside County.

### **3.3 LOCAL AND REGIONAL PLANNING CONTEXT**

The project alignment consists of lands within the jurisdictions of the County of Riverside and the City of San Jacinto. The land use planning documents that pertain to the project include the City of San Jacinto General Plan, County of Riverside General Plan, the San Jacinto Valley Area Plan, and the Western Riverside Multi-Species Habitat Conservation Plan.

#### **3.3.1 City of San Jacinto General Plan**

The City of San Jacinto General Plan was adopted on May 4, 2006, with the land use element being updated in October 2012 and the housing element being updated in September 2013. In addition to the land use and housing elements, the City General Plan includes economic development, community design, transportation, open space, parks and recreation, infrastructure, natural resources, safety, and noise elements. The General Plan is the primary long-range planning document that guides growth and development within the city. It also establishes the community's vision for the future and includes goals, policies, and programs to achieve that vision.

#### **3.3.2 County of Riverside General Plan**

The current County of Riverside General Plan was adopted on December 3, 2015 and contains nine elements, including land use, circulation, multipurpose open space, safety, noise, housing, air quality, healthy communities, and administration. Five of the nine elements, including land use, circulation, safety, housing, air quality, and administration, have been revised since the December 2015 adoption. The County General Plan covers the entire unincorporated portion of the County and is augmented by 19 detailed area plans that cover the County territory except for the undeveloped desert areas and March Air Joint Reserve Base. The purpose of the County General Plan is to manage the overall pattern of development while the area plans provide a focused framework aimed at enhancing individual community identity and stimulating quality of life at the community level.

#### **3.3.3 San Jacinto Valley Area Plan**

The entirety of the project alignment is within the boundaries of the SJV Area Plan of the County of Riverside General Plan. The SJV Area Plan, last revised in December 2016, covers the cities of San Jacinto and Hemet and nearby unincorporated County land. The SJV Area Plan includes a land use plan and sets forth policies related to land use, circulation, multipurpose open space, and hazards, while emphasizing the importance of the area's natural setting.

### **3.3.4 Western Riverside Multiple Species Habitat Conservation Plan**

The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on the conservation of species and their associated habitats in Western Riverside County. The MSHCP allows the County and its incorporated cities to better control local land use decisions and maintain strong economic function in the region while addressing the requirements of the state and federal Endangered Species Acts. Rather than addressing sensitive species on an individual basis, the MSHCP focuses on the conservation of 146 species, proposing a reserve system of approximately 500,000 acres and a mechanism to fund and implement the reserve system. Most importantly, the MSHCP allows participating entities to issue take permits for listed species so that individual applicants need not seek their own permits from the USFWS and/or CDFW. The MSHCP was adopted on June 17, 2003 by the Riverside County Board of Supervisors. The Incidental Take Permit was issued by both the USFWS and CDFW on June 22, 2004.

The District is not a signatory to the MSHCP, and as such is not subject to the requirements of the MSHCP, though a discussion regarding project consistency with the MSHCP is provided in this EIR for informational purposes.

## **3.4 STANDARD REGULATORY REQUIREMENTS**

Standard regulatory requirements are in place for numerous environmental issues that would minimize the proposed project's impacts. Construction and operation of the project would be conducted in compliance with applicable federal, state, and local laws and regulations, including environmental laws and regulations pertaining to various environmental topics that are described below.

Under Section 53091(d) and (e) of the California Government Code, 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 or wastewater. Zoning ordinances of a county or city shall not apply to the location of construction of facilities for the production, generation, storage, treatment, or transmission of water.

### **3.4.1 Aesthetics**

The project would implement lighting in a manner that complies with Riverside County Ordinance No. 655 to minimize nighttime lighting interference with operations of the Mount Palomar Observatory.

### **3.4.2 Air Quality**

To control fugitive dust during construction, the project would implement standard dust control measures in accordance with SCAQMD Rule 403, Fugitive Dust, including watering two times daily during excavation/grading, limiting vehicle speeds to 15 miles per hour (mph) on unpaved surfaces and maintaining a 12 percent moisture content on unpaved roads.

### **3.4.3 Cultural Resources**

During project construction, the District would comply with PRC Section 5097.98 and California State Health and Safety Code (HSC) 7050.5, upon unintentional discovery or disturbance of human remains. California State HSC Section 7050.5 dictates that no further disturbance will occur until the County

Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined by the County Coroner to be Native American, the NAHC will be notified within 24 hours, and the guidelines of the NAHC will be met in the treatment and disposition of the remains. A professional archaeologist with Native American burial experience will conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD), if any, identified by the NAHC. As necessary and appropriate, a professional archaeologist will be retained by the District to provide technical assistance to the MLD, including but not limited to the excavation and removal of the human remains.

### **3.4.4 Geology**

The District would implement relevant regulatory requirements and industry standards into the design and construction of the project, including current versions of the following, as appropriate: (1) International Building Code (IBC; which replaced the Uniform Building Code [UBC]); (2) California Building Code (CBC); (3) Standards and Specifications for Public Works Construction (Greenbook); (4) California Seismic Hazards Mapping Act and related guidelines; (5) Alquist-Priolo Earthquake Fault Zoning Act; and (6) associated local standards, as applicable. Specifically, the IBC provides standard specifications for engineering and construction activities, including measures related to seismic standards. The CBC, which is derived from the IBC, includes criteria specific to California such as geologic and seismic characteristics. The Greenbook provides standard specifications for public works projects, including measures related to geologic issues. The Seismic Hazards Mapping and Alquist-Priolo Earthquake Fault Zoning acts (along with related guidelines) provide guidance for the evaluation and mitigation of earthquake-related hazards in California. In addition, construction activities are also subject to federal and state occupational safety standards for excavation, shoring, and trenching, as specified in Title 29 of the Code of Federal Regulations (CFR), Title 8 of the California Code of Regulations (CCR), and Chapter 33 of the CBC. Additional descriptions of these and other applicable regulatory and industry standards related to geotechnical concerns are provided in Section 4.6, *Geology and Soils*.

### **3.4.5 Hydrology and Water Quality**

Construction and operational activities related to the proposed project would require conformance with applicable requirements of the federal Clean Water Act (CWA), National Pollutant Discharge Elimination System (NPDES), California Porter-Cologne Water Quality Control Act, CCR, associated implementing regulations of the State Water Resources Control Board (SWRCB) and RWQCB, and related local standards, as applicable. These requirements are primarily intended to protect water resources and address potential concerns related to drainage systems/watersheds (e.g., drainage alteration), water quality, flood-related hazards, and groundwater.

### **3.4.6 Hazards and Hazardous Materials**

Construction and operation of the proposed project would be conducted in compliance with all applicable federal, state, and local laws and regulations governing the use, management, handling, storage, release reporting and response actions, transportation, treatment, and disposal of hazardous materials, hazardous substances, and hazardous waste. During construction, these laws govern the manner in which hazardous materials may be transported, used, stored, and disposed of as well as the handling and disposal of demolition debris containing hazardous waste. During operations, these laws

govern the use, management, storage, and transportation of hazardous materials and the management, handling, storage, transportation, and disposal of hazardous wastes.

These laws include:

- U.S. Resource Conservation and Recovery Act (42 U.S.C. Section 6901 et seq.), which provides the ‘cradle to grave’ regulation of hazardous wastes; the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. Section 9601 et seq.), commonly known as the “superfund” law addressing remediation of contaminated sites.
- U.S. Emergency Planning and Community Right-to-Know Act (42 U.S.C. Section 11001 et seq.), which establishes reporting requirements for facilities storing hazardous materials and is designed to help local communities protect public health, safety, and the environment from chemical hazards.
- U.S. Hazardous Materials Transportation Act (49 U.S.C. Section 5101 et seq.), which governs hazardous materials transportation on U.S. roadways.
- California Hazardous Waste Control Law (Health and Safety Code Section 25100 et seq.) and Hazardous Substances Account Act (Health and Safety Code Sections 25300 et seq.), which impose regulatory systems for handling hazardous waste in a manner that protects human health and the environment.
- California Proposition 65, formally known as “The Safe Drinking Water and Toxic Enforcement Act of 1986” (Health and Safety Code, Chapter 6.6, Sections 25249.5 through 25249.13), requiring persons and entities doing business in California using specific listed chemicals known to the state to cause cancer or reproductive harm or birth defects to provide a clear and reasonable warning to individuals entering the site regarding the presence of such chemicals, and the implementing regulations for such laws.

## 4.0 ENVIRONMENTAL ANALYSIS

---

Sections 4.1 through 4.10 of this EIR contain information related to existing environmental conditions, regulatory framework, analyses of the potential impacts that would result from implementation of the proposed project, and feasible mitigation measures that could avoid or reduce environmental impacts to a less-than-significant level.

The environmental factors listed below would be potentially affected by implementation of the project:

- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Noise
- Transportation

The project would not result in one or more potentially significant impacts on the following environmental factors: aesthetics, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, utilities and service systems, and wildfire. The rationale for this determination is described in Chapter 5 of this EIR.

The potentially significant environmental effects are analyzed by considering applicable conditions, principles, and standards, and by using the methodology set forth below.

### **Existing Conditions**

As provided in Section 15125 of the *CEQA Guidelines*, the analysis includes a description of the existing physical environmental conditions in the vicinity of the proposed project, as of the date that the NOP of this EIR was published (April 2, 2020). The environmental baseline is the starting point for the analysis of the project's environmental effects, and it enables a meaningful assessment of the significance of such effects.

### **Regulatory Framework**

The analysis also provides a summary of applicable federal, state, and local laws, regulations, plans, and policies that are relevant to each environmental factor affected by the project.

### **Project Impacts and Mitigation**

#### *Thresholds of Significance*

As the Lead Agency, the District is responsible for determining whether an adverse environmental effect identified in the EIR is potentially significant or less than significant. Significance standards may vary depending on the nature of the area affected and, as a result, the definition of what is a significant

environmental effect must be flexible. In determining standards of significance, Lead Agencies can obtain assistance from experts, a Lead Agency's policies, performance standards adopted by regulatory agencies, significance standards recommended by regulatory agencies, and the Lead Agency's own judgment, among other things. In addition, Lead Agencies may use the standards set forth in Appendix G to the *CEQA Guidelines* as a basis for defining significance thresholds in an EIR.

The thresholds of significance used in this analysis are primarily based upon the recommendations provided in Appendix G of the *CEQA Guidelines*. The threshold of significance defines the type, amount, and/or extent of impact that would be considered a significant adverse change in the environment. The thresholds of significance for some environmental factors, such as air quality and noise, are quantitative, while those for other topics, such as aesthetics, are qualitative. The thresholds of significance are intended to assist the reader in understanding how and why an EIR determines whether an impact is potentially significant or less than significant.

### *Impact Analysis*

As required by *CEQA Guidelines* Section 15126.2, this EIR identifies and focuses on the potentially significant direct and indirect effects of the proposed project. In assessing the impact of the project on the environment, the District limits its examination to changes in the physical environment in the affected area from the environmental baseline discussed within the Existing Conditions section. Both direct and reasonably foreseeable indirect significant effects of the project on the environment are identified and described, giving due consideration to both long-term and short-term effects.

In drawing conclusions concerning an environmental analysis, such as whether a particular environmental effect is significant, CEQA depends upon the accumulation of substantial evidence in the record to support the conclusions, findings, and determinations made by the reviewing agency. In effect, substantial evidence is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though another conclusion might also be reached" (*CEQA Guidelines* Section 15384(a)). Substantial evidence includes facts, reasonable assumptions predicated upon fact, and expert opinion supported by facts; it does not include argument, speculation, conjecture, or unsubstantiated opinion (California PRC Sections 21080(e) and 21082.2(c)).

This EIR utilizes the following terms to describe the level of significance of impacts identified during the course of the environmental analysis:

- ***Less than Significant:*** This term is used when an environmental effect would not exceed the defined thresholds of significance, namely (1) when the effect is not a substantial or potentially substantial adverse change to the environment, and (2) when potentially significant impacts are reduced to a level that is less than significant after implementation of mitigation measures.
- ***Potentially Significant:*** This term is used to refer to impacts on the environment resulting from implementation of the project that exceed the defined thresholds of significance before identification of mitigation measures. A "significant effect" is defined by Section 15382 of the *CEQA Guidelines* 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 [but] may be considered in determining whether the physical change is significant." For impacts that

exceed a threshold of significance, feasible mitigation measures that avoid or reduce the potential impact are identified.

- **Significant and Unavoidable:** This term is used to refer to significant impacts resulting from implementation of the proposed project that cannot be eliminated or reduced to below thresholds of significance through implementation of feasible mitigation measures.

#### *Mitigation Measures*

Section 15126.4 of the *CEQA Guidelines* requires an EIR to “describe feasible measures which could minimize significant adverse impacts.” The *CEQA Guidelines* define “feasible” as a quality attributable to an action capable of being accomplished in a successful manner within a reasonable period of time taking into account economic, legal, social, technological, or other considerations. The EIR identifies and describes mitigation measures that could reduce the severity of potentially significant impacts identified as part of the Impact Analysis.

#### *Significance After Mitigation*

For impacts where mitigation has been identified, the EIR determines the level of significance of the impact following implementation of the identified mitigation measure.

This page intentionally left blank

## 4.1 AGRICULTURAL AND FORESTRY RESOURCES

This section describes the potential impacts of the proposed project to agricultural and forestry resources. The following discussion includes a description of existing conditions as related to agricultural and forestry resources, a summary of applicable regulations, and an evaluation of the proposed project's potential environmental effects associated with agricultural and forestry resources.

### 4.1.1 Existing Conditions

#### 4.1.1.1 Regional Agricultural Setting

The County General Plan identifies widespread and diverse agricultural lands as one of the County's most important land uses in terms of historic character and economic strength. The gross value of all agricultural crops produced during 2018 in the County was approximately \$1.3 billion, with the leading commodity groups by value including vegetable, melons, miscellaneous; livestock and poultry; and tree and vine (County of Riverside Agricultural Commissioner's Office 2019). The lower SJV, which is characterized by agricultural uses and mountainous terrain, is recognized as an area within Western Riverside County, where agricultural land is limited, that could sustain agricultural uses for a considerable period of time (County of Riverside 2016).

Similarly, the city of San Jacinto has historically been an agricultural community, with its rich valley soils providing a wide variety of crops. Primary agricultural uses within San Jacinto include groves and orchards, field and truck crops, and dairy and livestock feed yards (City of San Jacinto 2006).

#### 4.1.1.2 Project Area Conditions and Agricultural Resources

##### Current Agricultural Use

The California Department of Conservation (CDC) Farmland Mapping and Monitoring Program (FMMP) produces Important Farmland maps and statistical data used for categorizing agricultural land and analyzing impacts. Agricultural lands are rated based on soil quality and irrigation status, with Important Farmland maps scheduled for update every two years based on aerial photograph review, computer mapping analysis, public input, and field reconnaissance. The eight use categories identified on the Important Farmland maps are defined below in Section 4.1.1.3. Portions of land in the vicinity of the project alignment are mapped as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, Urban and Built-up Land, and Other Land. Within the project's proposed AWTF site and brine management system footprints, portions of land are designated as Unique Farmland and Farmland of Statewide Importance (CDC 2016). This area is currently utilized as irrigated agricultural land, planted with alfalfa. Because the AWTF and brine management system are components of the proposed project that would permanently convert land from its existing use and would occur on land currently mapped as and utilized for agriculture, the analysis in this section focuses on the combined footprint of the AWTF site and brine management system, referred to herein as the "subject site." Table 4.1-1, *Important Farmland within the Subject Site*, shows the acres and proportions of the subject site mapped as each FMMP land use category. Figure 4.1-1, *Farmland Designations and Soils*, shows the FMMP designations within the subject site.

**Table 4.1-1**  
**IMPORTANT FARMLAND WITHIN THE SUBJECT SITE**

<b>FMMP Land Use Category</b>	<b>Acres</b>	<b>Proportion of the Subject Site</b>
Unique Farmland	30.99	92.0%
Farmland of Statewide Importance	2.50	7.4%
<i>Subtotal</i>	<i>33.49</i>	<i>99.4%</i>
Urban and Built-Up Land	0.19	0.5%
<i>Subtotal</i>	<i>0.19</i>	<i>0.5%</i>
<b>Total</b>	<b>33.67</b>	<b>100%</b>

Source: CDC 2016

Note: Totals may not add due to rounding.

FMMP=Farmland Mapping and Monitoring Program

## Historical Agricultural Use

Historical imagery from Google Earth dating back to 1996 shows the area included ponds/basins from 1996 to 2003 that at times held water and at other times were left empty. The ponds/basins were surrounded by vacant and/or agricultural lands. In 2003, the site began to be used for agricultural crop farming and has been continuously used until the present for agricultural purposes, at times planted and at other times vacant/fallow.

### 4.1.1.3 Soil and Agricultural Land Designations

#### Federal

##### U.S. Natural Resources Conservation Service

The U.S. Natural Resources Conservation Service (NRCS, formerly the Soil Conservation Service [SCS]) maps soils according to distinct soil series and individual soil types. The SCS soil classification system also includes assessments of Land Capability Classification (LCC) and Storie Index ratings; summary definitions are provided below.

#### *Storie Index*

The Storie Index designation “[e]xpresses numerically the relative degree of suitability, or value, of a soil for general intensive agriculture. The rating is based on soil characteristics only. It does not take into account other factors such as the availability of water for irrigation, climate, and distance from markets, which might determine the desirability of growing specific crops in a given locality” (SCS 1971). The four factors that represent the inherent characteristics and qualities of the soil (i.e., profile characteristics, texture of surface soil, slope, and other conditions that limit use of the soil) are considered in the index rating.

#### *Land Capability Classification*

The LCC concept is defined as follows in the Western Riverside Area Soil Survey (SCS 1971):

Capability classifications show, in a general way, the suitability of soils for most kinds of field crops. Soils are classified according to the limitations when used for field crops, the risk of

damage when they are used, and the way they respond to treatment. The LCC system does not take into account major and generally expensive landforming that would change slope, depth, or other characteristics of the soils; does not take into consideration possible but unlikely major reclamation projects; and does not apply to rice, cranberries, horticultural crops, or other crops requiring special management. In the LCC system, all kinds of soils are grouped at three levels: the capability class (Roman numeral designation), the subclass (letter designation), and the unit (Arabic numeral designation).

Soils are divided into Capability Classes I through VIII, with these designations representing a range in quality from Class I soils that have few limitations for agricultural use, to Class VIII soils that have no commercial crop production capability. Capability Classes are further divided into subclasses and capability units which define limitations for agricultural use. Subclasses indicate soil limitations based on erodibility (e), water regime (w), depth and/or texture (s), and climate area (c). Capability units further reveal the main limitation for the placement of a soil into the given class and subclass. Numerals used to designate units within the classes and subclasses include: (0) sand and gravel in the substratum; (1) erosion hazard; (2) wetness caused by poor drainage or flooding; (3) slow or very slow permeability; (4) coarse texture or excessive gravel; (5) fine or very fine textured soil; (6) salts or alkali; (7) cobblestones, stones, or rocks; (8) nearly impervious bedrock or hardpan; and (9) toxicity or low fertility (SCS 1971).

## State

### California Department of Conservation

#### *Farmland Mapping and Monitoring Program*

As described above in Section 4.1.1.2, the CDC FMMP produces Important Farmland maps based on eight land use categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built up Land, Other Land, and Water. The Important Farmland designations are defined below.

#### Prime Farmland

Prime Farmland includes areas that have the best combination of physical and chemical characteristics for the production of crops, including (but not limited to) moisture regime, soil temperature, pH, groundwater depth, sodium content, flooding, erodibility, permeability, rock fragment content, and rooting depth. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for the production of irrigated crops at some time during the two update cycles (i.e., four years) prior to the mapping date.

#### Farmland of Statewide Importance

Farmland of Statewide Importance includes areas other than Prime Farmland that have a good combination of physical and chemical characteristics for the production of crops, but also have constraints to crop production such as greater slopes or less ability to store soil moisture. Areas mapped as Farmland of Statewide Importance must have been used for the production of irrigated crops at some time during the four years prior to the mapping date.

## Unique Farmland

Unique Farmland includes areas that do not meet the criteria for Prime Farmland (areas that have the best combination of physical and chemical characteristics for the production of crops) or Farmland of Statewide Importance (areas other than Prime Farmland that have a good combination of physical and chemical characteristics for the production of crops), but that have been used for the production of specific high economic value crops during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to current farming methods. Examples of such crops may include oranges, olives, avocados, rice, grapes, and cut flowers.

## Farmland of Local Importance

Farmland of Local Importance includes areas other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland that are currently producing crops, have the capability of such production, or are used for the production of confined livestock. Farmland of Local Importance may be important to local economies due to its productivity or value and is defined by each county's local advisory committee and adopted by its Board of Supervisors. For Riverside County, the definition of Farmland of Local Importance is provided by the CDC (2017) as:

- Soils that would be classified as Prime and Statewide but lack available irrigation water. Lands planted to dryland crops of barley, oats, and wheat.
- Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified as permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.
- Dairylands, including corrals, pasture, milking facilities, hay and manure storage areas if accompanied with permanent pasture or hayland of 10 acres or more.
- Lands identified by city of county ordinance as Agricultural Zones or Contracts, which includes Riverside City "Proposition R" lands. Lands planted to jojoba which are under cultivation and are of producing age.

## Grazing Land

Grazing Land includes areas on which the existing vegetation is suited to the grazing of livestock. Grazing Land does not include areas designated as any other Important Farmland categories or lands with restrictions to livestock movements (e.g., steep slopes), and is defined to include areas on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock. The minimum mapping unit for Grazing Land is 40 acres.

## Urban and Built-up Land

Urban and Built-up Land includes areas with a building density of at least one unit per 1.5 acres. This designation is used for residential, industrial, commercial, institutional, and other developed purposes. Transportation facilities (e.g., highways and railroads) and vacant (non-agricultural) areas surrounded by

urban development and less than 40 acres in size are mapped as part of associated Urban and Built-up Land, while uses such as farmsteads, commercial feedlots, and poultry facilities are not included within this designation.

#### Other Land

Land areas not included in any other Important Farmland mapping category are designated as Other Land. Common examples include low-density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; and vacant and non-agricultural areas larger than 40 acres and surrounded by urban development.

#### Water

This category is defined as perennial water bodies with an extent of at least 40 acres.

#### Criteria for Listing as Prime Farmland and Farmland of Statewide Importance

To be shown on FMMP's Important Farmland Maps as Prime Farmland or Farmland of Statewide Importance, land must meet both land use and soil criteria. To meet the land use criteria, the land must have been used for irrigated agricultural production at some time during the four years prior to the Important Farmland Map date. Irrigated land use is determined by FMMP staff by analyzing current aerial photos, local comment letters, and related GIS data, supplemented with field verification. To meet the soil criteria, the soil must meet the physical and chemical criteria for Prime Farmland or Farmland of Statewide Importance as determined by the NRCS, which compiles lists of soil types in each survey area that meet the quality criteria. Factors considered in qualification of a soil by NRCS include:

- Water moisture regimes, available water capacity, and developed irrigation water supply
- Soil temperature range
- Acid-alkali balance
- Water table
- Soil sodium content
- Flooding (uncontrolled runoff from natural precipitation)
- Erodibility
- Permeability rate
- Rock fragment content
- Soil rooting depth

#### *California Land Evaluation and Site Assessment Model*

The Land Evaluation and Site Assessment (LESA) is a point-based approach for rating the relative importance of agricultural land resources based upon specific measurable features. The California LESA Model was developed to provide lead agencies with an optional methodology to ensure that potentially significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process (PRC Section 21095), including in CEQA reviews.

The California Agricultural LESA Model evaluates measures of soil resource quality, a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. For a given project, the factors are rated, weighted, and combined, resulting in a single numeric score. The project score becomes the basis for making a determination of a project's potential significance.

## **4.1.2 Regulatory Framework**

### **4.1.2.1 State**

#### **California Land Conservation Act of 1965 (Williamson Act)**

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act (California Administrative Code §51200 et. seq.), enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. The issuance of such a contract precludes non-agricultural development of the subject property for a period of 10 years. In return, the landowner receives property tax assessments that are lower than normal because the assessments are based on farming and/or open space uses rather than full market value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971. Contracts issued under the Williamson Act automatically renew each year for a new 10-year period unless the landowner files a Notice of Non-renewal to terminate the contract at the end of the current 10-year period. During the 10-year cancellation period, property taxes are gradually raised to the appropriate level for developable land.

The Williamson Act also authorizes cities and counties to establish agricultural preserves, with these areas intended to identify locations wherein the issuing city or county is willing to enter into Williamson Act contracts. Agricultural preserves are generally intended to avoid areas where public utility improvements and related land acquisitions may be required. The Williamson Act does not specifically address the issue of compatible land uses in sites adjacent to agricultural preserves or contract lands, other than to require that “[c]ities and counties shall determine the types of uses to be deemed ‘compatible uses’ in a manner which recognizes that a permanent or temporary population increase often hinders or impairs agricultural operations.” (California Administrative Code §51220.5).

The Williamson Act allows the County of Riverside to designate agricultural preserves wherein agricultural properties are assessed on the basis of agricultural production rather than the current market value. There are no County-designated agricultural preserves within or adjacent to the impact footprint of the proposed project (County of Riverside 2020).

#### **Farmland Security Zone Act**

The Farmland Security Zone Act is similar to the Williamson Act and was passed by the California State Legislature in 1999 to ensure that long-term farmland preservation is part of public policy. Farmland Security Zone Act contracts are sometimes referred to as “Super Williamson Act Contracts.” Under the provisions of this act, a landowner already under a Williamson Act contract can apply for Farmland Security Zone status by entering into a contract with the county. Farmland Security Zone classification automatically renews each year for an additional 20 years. In return for a further 35 percent reduction in the taxable value of land and growing improvements (in addition to Williamson Act tax benefits), the owner of the property promises not to develop the property into nonagricultural uses. Because Farmland Security Zones are created within an agricultural preserve through agreement with the County and, as stated above, there are no County-designated agricultural preserves within or adjacent to the

impact footprint of the proposed project (County of Riverside 2020), there are therefore no Farmland Security Zones adjacent to the impact footprint of the proposed project.

### 4.1.3 Thresholds of Significance

The following criteria from Appendix G of the *CEQA Guidelines* are used as thresholds of significance to determine the impacts of the proposed project as related to agricultural and forestry resources. The proposed project would have a significant impact if it would:

1. 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;<sup>1</sup>
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract;
3. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 1220[g]), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g]);
4. Result in the loss of forest land or conversion of forest land to non-forest use; or
5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

The significance level of impacts to agricultural resources were determined from the results of the California LESA model, which is based on the Federal LESA model released in 1981 by the NRCS (known then as the SCS). The LESA model is a procedural tool that is designed to provide a quantitative method for rating the agricultural suitability of land compared to demands for non-agricultural uses of lands. The formation of a California LESA model is the result of legislation that added Section 21095 to CEQA, which directed the Resources Agency, in consultation with the California Office of Planning and Research, to amend Appendix G of the *CEQA Guidelines* to “provide lead agencies an optional methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environment review process.” Section 21095 also required the California Department of Conservation to develop a state model land evaluation and site assessment system, which in turn could be adopted by the Resources Agency as its amendment to Appendix G.

In 1997, the CDC published the California LESA model. Appendix G of the *CEQA Guidelines*, as revised in October 1998 (and carried forward in subsequent updates), includes the provision that “In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department Conservation as an optional model to use in assessing impacts on agriculture and farmland.”

The LESA model utilizes several basic factors which can capture much of the variability associated with the determination of the relative value of agriculture lands. A point-based approach is used to rate

---

<sup>1</sup> The significance level of impacts related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is dependent on the LESA model scoring.

various factors related to agricultural characteristics that ultimately result with an overall score for the project. This final LESA model score is a tool used by lead agencies to determine whether the conversion of farmland on a project site could be considered a significant impact using the scoring thresholds listed below in Table 4.1-2, *California LESA Model Scoring Thresholds*.

**Table 4.1-2  
CALIFORNIA LESA MODEL SCORING THRESHOLDS**

<b>Total LESA Score</b>	<b>Scoring Decision</b>
0 - 39	Not Considered Significant
40 - 59	Considered Significant <u>only</u> if the Land Evaluation Score <u>and</u> the Site Assessment Score are each greater than or equal to 20
60 - 79	Considered Significant <u>unless</u> either the Land Evaluation Score <u>or</u> the Site Assessment Score are less than 20 points
80 - 100	Considered Significant

Source: Table 9 of CDC 1997

LESA = Land Evaluation and Site Assessment

## 4.1.4 Project Impacts and Mitigation

### 4.1.4.1 LESA Model Methodology

The LESA model breaks project site factors into two categories: land evaluation factors and site assessment factors. Two land evaluation factors measure inherent soil-based qualities of the subject site as they relate to agricultural suitability. Four site assessment factors measure the social, economic, and geographic attributes as they relate or contribute to the overall agricultural value of the subject site. A separate score is determined for each factor. The six factor scores generated from the land evaluation and site assessment are recorded on a final score sheet where they are weighted and summed. The final sum is the LESA score for the project.

According to the CDC, the LESA model is designed to be used as part of the CEQA process to make a determination of the potential significance of a project’s conversion of agricultural lands to non-agricultural uses. The scoring thresholds are based upon the total LESA score as well as the component land calculation and site assessment sub scores. The scoring thresholds depend upon the attainment of a minimum score for the land evaluation and site assessment sub scores so that a single threshold is not the result of heavily skewed sub scores (e.g., a site with a very high Land Evaluation Score, but a very low Site Assessment Score).

### Step 1: Land Evaluation Score

After the soil types on a project site are identified, the LCC and Storie Index scores are calculated to compile the Land Evaluation Score of the LESA model. Table 4.1-3, *Numeric Conversion of Land Capability Classification Units*, lists the LCC Rating for each LCC category. The LCC score is determined by multiplying the LCC Rating by the proportion of the subject site covered by the corresponding soil type. The sum of the LCC scores (i.e., Total LCC Score) is the first half of the Land Evaluation Score and is given a weight of 25 percent of the total LESA score. The Storie Index rating is already based on a 100-point scale; therefore, to calculate the Storie Index score, the Storie Index rating is directly multiplied by the proportion of the subject area covered by the corresponding soil type. The sum of the Storie Index

scores (i.e., total Storie Index score) is the second half of the Land Evaluation Score and is given a weight of 25 percent of the total LESA score.

**Table 4.1-3  
NUMERIC CONVERSION OF LAND CAPABILITY CLASSIFICATION UNITS**

LCC	LCC Rating
I	100
Ile	90
IIs,w	80
IIle	70
IIIs,w	60
IVe	50
IVs,w	40
V	30
VI	20
VII	10
VIII	0

Source: Table 2 of CDC 1997  
LCC = Land Capability Classification

## Step 2: Site Assessment

### Project Size Score

The project size score is included in the LESA model to account for the effect that overall farm size coupled with the quality of the farmland has on the productivity and economic viability of a commercial farming operation. The Project Size Score is calculated by grouping the acreages associated with each LCC into the categories listed in Table 4.1-4, *Project Size Scoring*. The total acreage within each grouping is then tabulated, and the highest category score is selected as the project size score.

**Table 4.1-4  
PROJECT SIZE SCORING**

LCC Class I or II Soils		LCC Class III Soils		LCC Class IV or Lower	
Acres	Score	Acres	Score	Acres	Score
80 or above	100	160 or above	100	320 or above	100
60 - 79	90	120 - 159	90	240 - 319	80
40 - 59	80	80 - 119	80	160 - 239	60
20 - 39	50	60 - 79	70	100 - 159	40
10 - 19	30	40 - 59	60	40 - 99	20
Fewer than 10	0	20 - 39	30	Fewer than 40	0
		10 - 19	10		
		Fewer than 10	0		

Source: Table 3 of CDC 1997  
LCC = Land Capability Classification

### Water Resource Availability Score

The water resource availability score is based on overall water availability on the property, as well as potential restrictions on water availability in drought years compared to non-drought years. Potential restrictions are classified as physical restrictions (i.e., an occasional or regular interruption or reduction in a water supply that forces a change in agricultural practices) and/or economic restrictions (i.e., a rise in the cost of water to a level that forces a reduction in consumption). As shown in Table 4.1-5, *Water Resource Availability Scoring*, the water resource availability score is based on the feasibility of irrigated production and potential restrictions in years of both non-drought and drought.

**Table 4.1-5  
WATER RESOURCE AVAILABILITY SCORING**

Option	Non-Drought Years			Drought Years			Water Resource Availability Score
	Is irrigated production feasible?	Are there physical restrictions?	Are there economic restrictions?	Is irrigated production feasible?	Are there physical restrictions?	Are there economic restrictions?	
1	Yes	No	No	Yes	No	No	100
2	Yes	No	No	Yes	No	Yes	95
3	Yes	No	Yes	Yes	No	Yes	90
4	Yes	No	No	Yes	Yes	No	85
5	Yes	No	No	Yes	Yes	Yes	80
6	Yes	Yes	No	Yes	Yes	No	75
7	Yes	Yes	Yes	Yes	Yes	Yes	65
8	Yes	No	No	No	--	--	50
9	Yes	No	Yes	No	--	--	45
10	Yes	Yes	No	No	--	--	35
11	Yes	Yes	Yes	No	--	--	30
12	†	†	†	†	†	†	25
13	††	††	††	††	††	††	20
14	†††	†††	†††	†††	†††	†††	0

Source: Table 5 of CDC 1997

† Irrigated production not feasible, but rainfall adequate for dryland production in both drought and non-drought years.

†† Irrigated production not feasible, but rainfall adequate for dryland production in non-drought years (but not drought years).

††† Neither irrigated nor dryland production feasible.

### Surrounding Agricultural Land Score

The surrounding agricultural land score is designed to provide a measurement of the level of agricultural land use for lands in close proximity to the subject property site. The LESA model assigns a higher surrounding agricultural land score to projects where the conversion of an agricultural parcel would occur in an area that has a large proportion of surrounding land in agricultural production, as shown in Table 4.1-6, *Surrounding Agricultural Land Scoring*. The procedure for determining the zone of influence (ZOI) is provided by the CDC (CDC 1997) and involves identifying land near a project site that would likely influence or be influenced by the agricultural use on the subject property. For the subject site, the ZOI was determined via the following steps (from CDC 1997):

1. Locate the proposed project on an appropriate map and outline the area and dimensions of the proposed project site.
2. Determine the smallest rectangle that will completely contain the project site (Rectangle A).
3. Create a second rectangle (Rectangle B) that extends 0.25 mile (1,320 feet) beyond Rectangle A on all sides.
4. Identify all parcels that are within or are intersected by Rectangle B.
5. Define the project site's "zone of influence" as the entire area of all parcels identified in Step 4, less the area of the proposed project from Step 1.

**Table 4.1-6  
 SURROUNDING AGRICULTURAL LAND SCORING**

Proportion of ZOI in Agricultural Use	Surrounding Agricultural Land Score
90 – 100%	100
80 – 89%	90
75 – 79%	80
70 – 74%	70
65 – 69%	60
60 – 64%	50
55 – 59%	40
50 – 54%	30
45 – 49%	20
40 – 44%	10
<40%	0

Source: Table 6 of CDC 1997  
 ZOI = Zone of Influence

The ZOI for the proposed project’s subject site is shown on Figure 4.1-2, *Agricultural Zone of Influence*.

**Surrounding Protected Resource Land Score**

The surrounding protected resource land score is an extension of the surrounding agricultural land score and includes lands with long-term use restrictions that are compatible with, or supportive of, agricultural land uses. Examples of lands in this category include:

- Williamson Act contracted lands/agricultural preserves;
- Publicly owned lands maintained as park, forest, or watershed resources; and,
- Lands with agricultural, wildlife habitat, open space, or other natural resource easements that restrict the conversion of such lands to urban or industrial uses.

The LESA model assigns a higher surrounding protected resource land score to projects where the conversion of an agricultural parcel would occur in an area that has a large proportion of surrounding protected resource land, as shown in Table 4.1-7, *Surrounding Protected Resource Land Scoring*.

**Table 4.1-7  
 SURROUNDING PROTECTED RESOURCE LAND SCORING**

Proportion of ZOI Designated as Protected Resource Land	Surrounding Protected Resource Land Score
90 – 100%	100
80 – 89%	90
75 – 79%	80
70 – 74%	70
65 – 69%	60
60 – 64%	50
55 – 59%	40
50 – 54%	30
45 – 49%	20
40 – 44%	10
< 40%	0

Source: Table 7 of CDC 1997  
 ZOI = Zone of Influence

**Step 3: Final LESA Score**

Each of the preceding scores are assigned a weight in the LESA model; half of the final LESA score is attributed to the land evaluation factors, and the other half of the score is attributed to the site assessment factors. The potential significance of a project’s conversion of agricultural lands to non-agricultural use is then determined based on the California LESA Model Scoring Thresholds presented above in Table 4.1-2.

**4.1.4.2 Issue 1: Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance**

*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 a non-agricultural use?*

**Impact Analysis**

Implementation of the project would result in the conversion of the farmland to non-agricultural uses and would result in impacts to agricultural resources. Specifically, land designated as Unique Farmland and Farmland of Statewide Importance within the combined AWTF site and brine management system footprint (subject site) would be converted to non-agricultural uses. The significance of these impacts as assessed based on the LESA model scores, as detailed below.

**Land Evaluation**

Identified soils types within the subject site are shown on Figure 4.1-1 and listed in Table 4.1.8, *Land Capability Classification and Storie Index Scores for the Subject Site*. The LCC rating for each soil type was identified based on Table 4.1-3, and the Storie Index rating was determined based on the Soil Survey for the Western Riverside Area (SCS 1971). Results indicate a total LCC score of 41.6 and a total Storie Index score of 14.0.

**Table 4.1-8  
LAND CAPABILITY CLASSIFICATION AND STORIE INDEX SCORES FOR THE SUBJECT SITE**

Map Symbol – Soil Type	Soil Description	Acres	Proportion of the Subject Site	LCC	LCC Rating	LCC Score	Storie Index Rating	Storie Index Score
Tt2	Traver fine sandy loam, strongly saline-alkali, eroded	31.04	92.18%	IVs	40	36.9	12	11.1
Tr2	Traver loamy fine sand, saline-alkali, eroded	2.63	7.82%	IIIs	60	4.7	37	2.9
<b>Totals</b>		<b>33.67</b>	<b>100%</b>	<b>Total LCC Score</b>		<b>41.6</b>	<b>Total Storie Index Score</b>	<b>14.0</b>

Sources: CDC 1997  
LCC = Land Capability Classification

### Site Assessment

As described in Section 4.1.4.1, scoring for the site assessment involves factors related to project size, water resources availability, and surrounding land uses, as described below.

#### *Project Size Score*

The majority of the subject site is classified as LCC Class IV or lower, as shown in Table 4.1-9, *Project Size Score for the Subject Site*; however, since the score for all categories (as provided in Table 4.1-4) was 0, the project size score for the subject site is 0.

**Table 4.1-9  
PROJECT SIZE SCORE FOR THE SUBJECT SITE**

LCC Class I or II Soils		LCC Class III Soils		LCC Class IV or Lower	
Subject Site Acres	Score	Subject Site Acres	Score	Subject Site Acres	Score
0	0	2.63	0	31.04	<b>0</b>

Note: Bold font indicated the highest score, which becomes the project size score for the Land Evaluation and Site Assessment (LESA) model.

LCC = Land Capability Classification

#### *Water Resource Availability Score*

The subject site is served by the District. A review of aerial images from Google Earth, dated from 1996 to 2018, indicate that portions of the subject site have been farmed during both non-drought and drought years. While water scarcity coupled with high cost of water would most likely result in restrictions to water availability, particularly in drought years, it was conservatively assumed that there are no restrictions to water availability at the subject site. The water resource availability score associated with Option 1 in Table 4.1-5 was selected, resulting in a water resource availability score of 100, as shown in Table 4.1-10, *Water Resource Availability Score for the Subject Site*.

**Table 4.1-10  
WATER RESOURCE AVAILABILITY SCORE FOR THE SUBJECT SITE**

Water Source	Acres	Proportion of Subject Site	Water Resource Availability Score	Weighted Water Resource Availability Score
Eastern Municipal Water District	33.67	100%	100 <sup>1</sup>	100
<b>Total</b>	<b>33.67</b>	<b>100%</b>	<b>Total Water Resource Availability Score</b>	<b>100</b>

<sup>1</sup> Option 1 from Table 4.1-4

*Surrounding Agricultural Land Score*

For this analysis, all land designated as farmland by the CDC’s FMMP was conservatively considered to be actively used for agriculture. This includes approximately 873 acres of land within the 1,076-acre ZOI of the subject site. Table 4.1-11, *Agricultural Production within the Zone of Influence*, shows the surrounding agricultural land score associated with the agricultural uses in the area.

**Table 4.1-11  
AGRICULTURAL PRODUCTION WITHIN THE ZONE OF INFLUENCE**

Total Acres within Zone of Influence	Acres of Agricultural Land	Percent in Agriculture	Surrounding Agricultural Land Score
1,076	837	78	80 <sup>1</sup>

<sup>1</sup> Determined from Table 4.1-6.

*Surrounding Protected Resource Land*

There are no identified protected resources lands or preserves, such as Williamson Act contracted lands/agricultural preserves, publicly owned lands maintained as park, forest, or watershed resources, or lands with agricultural, wildlife habitat, open space, or other natural resource easements that restrict the conversion of such lands to urban or industrial uses within the subject site ZOI. Table 4.1-12, *Protected Resource Land within the Zone of Influence*, shows the surrounding protected resource land score associated with the proposed project’s subject site ZOI.

**Table 4.1-12  
PROTECTED RESOURCE LAND WITHIN THE ZONE OF INFLUENCE**

Total Acres within Zone of Influence	Acres of Protected Resource Land	Percent Protected Resource Land	Surrounding Protected Resource Land Score
1,076	0	0%	0 <sup>1</sup>

<sup>1</sup> Determined from Table 4.1-7.

**Final LESA Score**

The total scores for the land evaluation and site assessment are shown in Table 4.1-13, *Final LESA Score for the Subject Site*. The final LESA score for the proposed project’s subject site is 40.9, which would only be considered significant if the Land Evaluation Score and Site Assessment Score are both equal to or greater than 20 (refer to Table 4.1-2). Since the Land Evaluation Score is less than 20, the LESA model

indicates that the project’s impacts to agricultural resources would not be significant. Factors that resulted in a relatively low score include the absence of soils on the site with a Storie Index rating of 80 or above and absence of soils with an LCC rating of Class I or Class II, as well as the relatively small size of the site. In addition, the lack of identified protected resource lands within the ZOI result in a corresponding score of zero. Based on the results of the LESA model, impacts related to the conversion of farmland to non-agricultural use are less than significant.

**Table 4.1-13  
FINAL LESA SCORE FOR THE SUBJECT SITE**

	<b>Total Scores</b>	<b>Weight</b>	<b>Weighted Scores</b>
<b>Land Evaluation</b>			
Land Capability Classification (LCC)	41.6	0.25	10.4
Storie Index Rating	14.0	0.25	3.5
<i>Land Evaluation Score</i>			<i>13.9</i>
<b>Site Assessment</b>			
Project Size	0	0.15	0.0
Water Resource Availability	100	0.15	15.0
Surrounding Agricultural Lands	80	0.15	12.0
Protected Resource Lands	0	0.05	0
<i>Site Assessment Score</i>			<i>27.0</i>
<b>FINAL LESA Score</b>			<b>40.9</b>

LESA = Land Evaluation and Site Assessment

### Mitigation Measures

Impacts related to the conversion of farmland to a non-agricultural use would be less than significant; therefore, no mitigation is necessary.

#### 4.1.4.3 Issue 2: Williamson Act Contract

*Would the proposed project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

### Impact Analysis

As discussed above under Section 4.1.2.1, Williamson Act contract lands within the county are identified as County-designated agricultural preserves. There are no County-designated agricultural preserves within or adjacent to the impact footprint of the proposed project (County of Riverside 2020). In addition, the proposed project components that would permanently convert land from its existing use and would occur on land currently utilized for agriculture (the AWTF and brine management system; identified above as the subject site for this analysis), would be located on land that is zoned as RM (Residential, Medium Density) by the City; therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impacts would occur.

### Mitigation Measures

No impacts related to conflicting with existing zoning for agricultural use or a Williamson Act contract would occur; therefore, no mitigation is necessary.

#### **4.1.4.4 Issue 3: Zoning for Forest Land**

*Would the proposed project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 1220[g]), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g])?*

##### **Impact Analysis**

There is no land zoned as forest land, timberland, or timberland zoned Timberland Production in the vicinity of the project; therefore, the project would not conflict with such zoning and no impacts would occur.

##### **Mitigation Measures**

No impacts related to conflict with forest land or timberland would occur; therefore, no mitigation is necessary.

#### **4.1.4.5 Issue 4: Loss or Conversion of Forest Land**

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

##### **Impact Analysis**

There is no forest land in the vicinity of the project; therefore, the project would not result in the loss of forest land or conversion of forest land to non-forest use and no impacts would occur.

##### **Mitigation Measures**

No impacts related to the loss of forest land or conversion of forest land to non-forest use would occur; therefore, no mitigation is necessary.

#### **4.1.4.6 Issue 5: Conversion of Farmland to Non-agricultural Use or Forest Land to Non-forest Use**

*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?*

##### **Impact Analysis**

As discussed above, the project's proposed AWTF site and brine management system would be located on land that is currently used for agricultural production and includes land that is mapped by the CDC's FMMP as Unique Farmland and Farmland of Statewide Importance. The project would therefore result in the conversion of farmland to non-agricultural use; however, as detailed in Section 4.1.4.2, the results of the LESA model indicate that impacts related to the conversion of farmland to non-agricultural would be less than significant, primarily due to the relatively small size of the site and types of soils present on site. In addition, as discussed in Sections 4.1.4.4 and 4.1.4.5, the project would not convert forest land to non-forest use. The project would not involve other changes in the existing environment which, due to

their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. Impacts would be less than significant.

### **Mitigation Measures**

Impacts related to the conversion of farmland to a non-agricultural use or conversion of forest land to non-forest use would be less than significant; therefore, no mitigation is necessary.

This page intentionally left blank

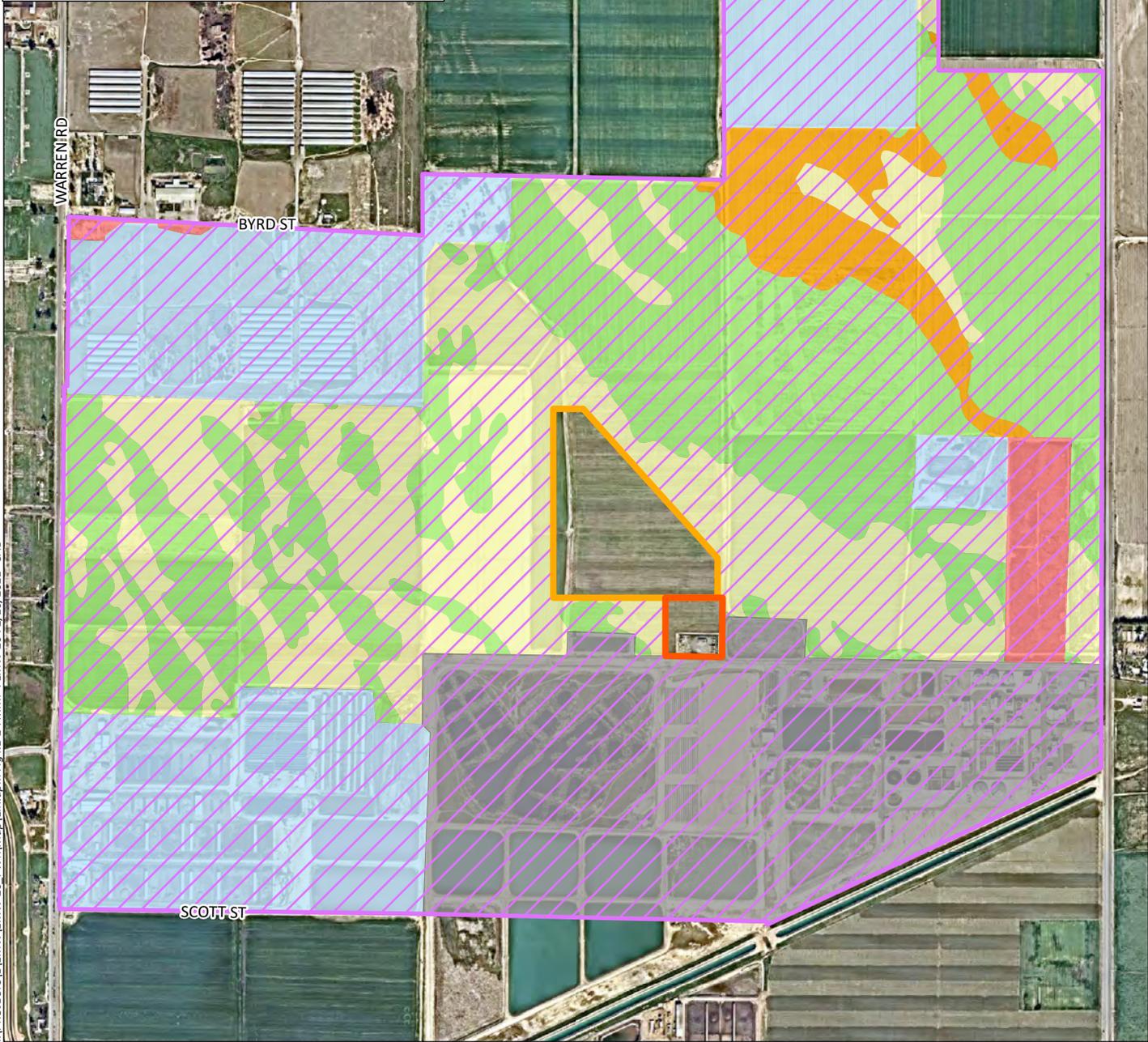


I:\PROJECTS\EMM\EMW-20\_PWR\Map\EIR.aprx Fig4.1-1 Soils : EMW-20 - 2/10/2021 - SAB



Source: Aerial (NearMap, 2020)

-  Proposed Advanced Water Treatment Facility
-  Proposed Brine Management System
-  Zone of Influence
- FMMP Category
  -  Farmland of Local Importance
  -  Farmland of Statewide Importance
  -  Other Land
  -  Prime Farmland
  -  Unique Farmland
  -  Urban and Built-Up Land



I:\PROJECTS\EMW\EMW-20\_PWRI\Map\EIR.aprx Fig4.1-2-FMMP : EMW-20 : 2/10/2021 - SAB



Source: Aerial (NearMap, 2020)

## 4.2 AIR QUALITY

This section addresses the potential air quality impacts of the proposed project. The following discussion includes a description of existing conditions as related to air quality, a summary of applicable regulations, and an evaluation of the proposed project's potential environmental effects associated with conflict with an applicable air quality plan, a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment, exposure of sensitive receptors to substantial pollutant concentrations, and other emissions such as those leading to odors adversely affecting a substantial number of people. This section is based on the *Air Quality/Greenhouse Gas Emissions Technical Report* prepared for the proposed project (HELIX 2021; Appendix B).

### 4.2.1 Existing Conditions

#### 4.2.1.1 Climate and Meteorology

The project site is in the SCAB, which consists of all or part of four counties: Los Angeles, San Bernardino, Riverside, and Orange. The distinctive climate of the SCAB is determined by its terrain and geographic location. The SCAB is a coastal plain with connecting broad valleys and low hills. It is bound by the Pacific Ocean to the southwest and high mountains around the rest of its perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light, average wind speeds.

The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. Winds in the Project area are usually driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes. At night, the wind generally slows and reverses direction traveling toward the sea. Local canyons can also alter wind direction, with wind tending to flow parallel to the canyons. The vertical dispersion of air pollutants in the SCAB is hampered by the presence of persistent temperature inversions. High pressure systems, such as the semi-permanent high-pressure zone in which the SCAB is located, are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, and resulting in the formation of subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog.

The highest monthly average maximum temperature (98.9°F) in the project area, as measured at the Hemet climatic station, occurs in August, and the lowest monthly average minimum temperature (37.3°F) occurs in January (WRCC 2016). The average annual precipitation is approximately 11 inches, most of which occurs in the winter months (WRCC 2016).

#### 4.2.1.2 Existing Air Quality

##### Criteria Air Pollutants

Six air pollutants have been identified by the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) as being of concern both on a nationwide and statewide level: ground-level ozone (O<sub>3</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), lead, and particulate matter (PM), which is subdivided into two classes based on particle size: respirable PM equal to or less than 10 micrometers in diameter (PM<sub>10</sub>) and fine PM equal to or less than 2.5 micrometers in

diameter (PM<sub>2.5</sub>). These air pollutants are commonly referred to as “criteria air pollutants” because air quality standards are regulated using human health and environmentally based criteria. Criteria pollutants can be emitted directly from sources (primary pollutants; e.g., CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead), or they may be formed through chemical and photochemical reactions of precursor pollutants (secondary pollutants; e.g., ozone, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>) in the atmosphere. PM<sub>10</sub> and PM<sub>2.5</sub> can be both primary pollutants emitted directly from a source and secondary pollutants formed through chemical reactions in the atmosphere. The principal precursor pollutants of concern are reactive organic gasses ([ROGs] also known as volatile organic compounds [VOCs])<sup>1</sup> and nitrogen oxides (NO<sub>x</sub>).

The descriptions of sources and general health effects for each of the criteria air pollutants are shown in Table 4.2-1, *Summary of Common Sources and Human Health Effects of Criteria Air Pollutants*, based on information provided by the California Air Pollution Control Officers Association ([CAPCOA] 2019). Specific adverse health effects to individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individuals [e.g., age, gender]). Criteria pollutant precursors (ROG and NO<sub>x</sub>) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO<sub>2</sub> are, therefore, the product of emissions generated by numerous sources throughout a region. As such, specific health effects from these criteria pollutant emissions cannot be directly correlated to the incremental contribution from a single project.

**Table 4.2-1  
 SUMMARY OF COMMON SOURCES AND HUMAN HEALTH EFFECTS OF CRITERIA AIR POLLUTANTS**

<b>Pollutant</b>	<b>Major Man-Made Sources</b>	<b>Human Health Effects</b>
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO <sub>2</sub> )	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to climate change and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O <sub>3</sub> )	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrogen oxides (NO <sub>x</sub> ) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles and dyes.

<sup>1</sup> CARB defines and uses the term ROGs while the USEPA defines and uses the term VOCs. The compounds included in the lists of ROGs and VOCs and the methods of calculation are slightly different. However, for the purposes of estimating criteria pollutant precursor emissions, the two terms are often used interchangeably.

**Table 4.2-1 (cont.)  
SUMMARY OF COMMON SOURCES AND HUMAN HEALTH EFFECTS OF CRITERIA AIR POLLUTANTS**

<b>Pollutant</b>	<b>Major Man-Made Sources</b>	<b>Human Health Effects</b>
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	Produced by power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and other sources.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO <sub>2</sub> )	A colorless, nonflammable gas formed when fuel containing sulfur is burned, when gasoline is extracted from oil, or when metal is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Lead	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron, and steel producers, use of leaded fuels by racing and aircraft industries.	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: CAPCOA 2019

### Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For carcinogenic TACs, there is no level of exposure that is considered safe and impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

### Monitored Air Quality

The SCAQMD maintains monitoring stations to measure ambient concentrations of pollutants in the SCAB. The nearest monitoring station to the project site is the Perris monitoring station, located approximately 12 miles east of the project site. The Perris station monitors ozone and PM<sub>10</sub>. Data from the Lake Elsinore – W. Flint Street monitoring station, located approximately 20 miles southwest of the project site, was used for PM<sub>2.5</sub> and NO<sub>2</sub>. Table 4.2-2, *Air Quality Monitoring Data*, presents a summary of the ambient pollutant concentrations monitored at the Perris and Lake Elsinore air quality monitoring stations during the years of 2017 through 2019 for which the SCAQMD has reported data. As shown in Table 4.2-2, the 1- and 8-hour ozone standards, as well as the state PM<sub>10</sub> standard, were exceeded numerous times in each of the sample years.

**Table 4.2-2  
AIR QUALITY MONITORING DATA**

<b>Pollutant Standards</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Ozone (O<sub>3</sub>)</b>			
Maximum concentration 1-hour period (ppm)	0.120	0.117	0.118
Maximum concentration 8-hour period (ppm)	0.105	0.103	0.095
Days above 1-hour state standard (>0.09 ppm)	33	31	28
Days above 8-hour state/federal standard (>0.070 ppm)	80	67	64
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>			
Maximum 1-hour concentration (ppm)	0.049	0.041	0.038
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
<b>Respirable Particulates (PM<sub>10</sub>)</b>			
Maximum 24-hour concentration (µg/m <sup>3</sup> )	75.4	64.4	97.0
Days above state standard (>50 µg/m <sup>3</sup> )	11	2	4
Days above federal standard (>150 µg/m <sup>3</sup> )	0	0	0
<b>Fine Particulates (PM<sub>2.5</sub>)</b>			
Maximum 24-hour concentration (µg/m <sup>3</sup> )	27.2	31.3	17.6
Days above federal standard (>35 µg/m <sup>3</sup> )	*	*	*

Source: CARB 2021

\*Insufficient data available to determine the value  
ppm = parts per million

## 4.2.2 Regulatory Framework

### 4.2.2.1 Federal

#### Federal Clean Air Act

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA), first enacted in 1963 and amended numerous times in subsequent years (1965, 1967, 1970, 1977, and 1990). The CAA mandates the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several criteria pollutants, which are introduced above. Table 4.2-3, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards for these pollutants.

**Table 4.2-3  
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards	Federal Standards Primary <sup>1</sup>	Federal Standards Secondary <sup>2</sup>
O <sub>3</sub>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	–	–
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )	0.070 ppm (137 µg/m <sup>3</sup> )	Same as Primary
PM <sub>10</sub>	24 Hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Same as Primary
	AAM	20 µg/m <sup>3</sup>	–	Same as Primary
PM <sub>2.5</sub>	24 Hour	–	35 µg/m <sup>3</sup>	Same as Primary
	AAM	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>	15.0 µg/m <sup>3</sup>
CO	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	–
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )	–	–
NO <sub>2</sub>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	0.100 ppm (188 µg/m <sup>3</sup> )	–
	AAM	0.030 ppm (57 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary
SO <sub>2</sub>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	0.075 ppm (196 µg/m <sup>3</sup> )	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m <sup>3</sup> )
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )	–	–
Lead	30-day Avg.	1.5 µg/m <sup>3</sup>	–	–
	Calendar Quarter	–	1.5 µg/m <sup>3</sup>	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m <sup>3</sup>	–
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	No Federal Standards
Sulfates	24 Hour	25 µg/m <sup>3</sup>	No Federal Standards	No Federal Standards
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	No Federal Standards	No Federal Standards
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	No Federal Standards	No Federal Standards

Source: CARB 2020

<sup>1</sup> National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

<sup>2</sup> National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

AAM = Annual Arithmetic Mean; CO = carbon monoxide; km = kilometer; mg/m<sup>3</sup> = milligrams per cubic meter; NO<sub>2</sub> = nitrogen dioxide; O<sub>3</sub> = ozone; ppm = parts per million; PM<sub>10</sub> = respirable particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = fine particulate matter 2.5 microns or less in diameter; SO<sub>2</sub> = sulfur dioxide; – = No Standard; µg/m<sup>3</sup> = micrograms per cubic meter

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants described in Table 4.2-1 through the California Clean Air Act of 1988, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H<sub>2</sub>S), vinyl chloride, and visibility-reducing particles. Areas that do not meet the

NAAQS or the CAAQS for a particular pollutant are considered to be “nonattainment areas” for that pollutant.

The USEPA has classified air basins (or portions thereof) as being in “attainment,” “nonattainment,” or “unclassified” for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. The project site is located within the SCAB and, as such, is in an area designated a nonattainment area for certain pollutants that are regulated under the CAA. Table 4.2-4, *South Coast Air Basin Attainment Status*, in Section 4.2.2.3 lists the federal and state attainment status of the SCAB for the criteria pollutants. The USEPA classifies the SCAB as in attainment for CO, PM<sub>10</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and lead; in extreme nonattainment for 8-hour ozone; and in serious nonattainment for PM<sub>2.5</sub> with respect to federal air quality standards.

The CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SIP is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA has the responsibility to review all SIPs to determine whether they conform to the requirements of the CAA.

#### **4.2.2.2 State**

##### **California Clean Air Act**

The federal CAA allows states to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, 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 (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California’s SIP, for which it works closely with the federal government and the local air districts.

Table 4.2-4 lists the state attainment status of the SCAB for the criteria pollutants. Under state designation, the SCAB is currently in attainment for CO, NO<sub>2</sub>, SO<sub>2</sub>, and lead; and in nonattainment for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>.

##### **Toxic Air Contaminants**

California’s air toxics control program began in 1983 with the passage of the Toxic Air Contaminant Identification and Control Act, better known as AB 1807 or the Tanner Bill. When a compound becomes listed as a TAC under the Tanner process, CARB normally establishes minimum statewide emission control measures to be adopted by local air pollution control districts (APCDs). Later legislative amendments (Assembly Bill [AB] 2728) required CARB to incorporate all 189 federal hazardous air pollutants (HAPs) into the state list of TACs.

Supplementing the Tanner process, AB 2588 – the Air Toxics “Hot Spots” Information and Assessment Act of 1987 – currently regulates over 600 air compounds, including all of the Tanner-designated TACs. Under AB 2588, specified facilities must quantify emissions of regulated air toxics and report them to the local APCD. If the APCD determines that a potentially significant public health risk is posed by a given facility, the facility is required to perform a health risk assessment (HRA) and notify the public in the affected area if the calculated risks exceed specified criteria.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is less than 2.5 microns in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, the CARB identified DPM as a toxic air contaminant based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a significant impact on California’s population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2018).

In September 2000, CARB approved the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (Diesel Risk Reduction Plan; CARB 2000). The Diesel Risk Reduction Plan outlined a comprehensive and ambitious program that included the development of numerous new control measures over the next several years aimed at substantially reducing emissions from new and existing on-road vehicles (e.g., heavy-duty trucks and buses), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps), and stationary engines (e.g., stand-by power generators). These requirements are now in force on a statewide basis.

### **4.2.2.3 Local**

#### **South Coast Air Quality Management District**

The project is located in western Riverside County (County). Air quality in the western portion of the County is regulated by the SCAQMD. As a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), County transportation commissions, and local governments and cooperates actively with all federal and state government agencies. The SCAQMD develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMP).

On March 3, 2017, the SCAQMD adopted the 2016 AQMP, which is a regional and multi-agency effort (SCAQMD, CARB, SCAG, and USEPA). The 2016 AQMP represents a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures. The plan seeks to achieve multiple goals in partnership with other entities promoting reductions in criteria pollutant, greenhouse gases, and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017a).

The AQMP, in combination with those from all other California nonattainment areas with serious (or worse) air quality problems, is submitted to CARB for inclusion in the SIP. The SIP relies on the same

information from SCAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The current federal and state attainment status for the SCAB is presented in Table 4.2-4.

The SCAQMD Rule 403, *Fugitive Dust*, requires the implementation of best available dust control measures (BACM) during active operations capable of generating fugitive dust. Rule 403 prohibits the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that the dust remains visible in the atmosphere beyond the property line of the emission source; or the dust emission exceeds 20 percent opacity, if the dust emission is the result of movement of a motorized vehicle (SCAQMD 2005).

**Table 4.2-4  
 SOUTH COAST AIR BASIN ATTAINMENT STATUS**

Criteria Pollutant	Federal Designation	State Designation
O <sub>3</sub> (1-hour)	(No federal standard)	Nonattainment
O <sub>3</sub> (8-hour)	Extreme Nonattainment	Nonattainment
CO	Attainment (Maintenance)	Attainment
PM <sub>10</sub>	Attainment (Maintenance)	Nonattainment
PM <sub>2.5</sub>	Serious Nonattainment	Nonattainment
NO <sub>2</sub>	Attainment (Maintenance)	Attainment
SO <sub>2</sub>	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Attainment
Visibility	(No federal standard)	Attainment

Source: SCAQMD 2016

O<sub>3</sub> = ozone; CO = carbon monoxide; PM<sub>10</sub> = particulate matter 10 micrometers or less in diameter; PM<sub>2.5</sub> = particulate matter 2.5 micrometers or less in diameter; NO<sub>2</sub> = nitrogen dioxide; SO<sub>2</sub> = sulfur dioxide

### 4.2.3 Thresholds of Significance

The following criteria from Appendix G of the *CEQA Guidelines* are used as thresholds of significance to determine the impacts of the proposed project as related to air quality. The proposed project would have a significant impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan;
2. 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;
3. Expose sensitive receptors to substantial pollutant concentrations; or
4. Result in other emissions such as those leading to odors adversely affecting a substantial number of people.

Appendix G of the State *CEQA Guidelines* states that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. The SCAQMD has established significance thresholds to assess the regional and

localized impacts of project-related air pollutant emissions. The significance thresholds are updated, as needed, to appropriately represent the most current technical information and attainment status in the SCAB. Table 4.2-5, *SCAQMD Air Quality Significance Thresholds*, presents the most current significance thresholds, including regional daily thresholds for short-term construction and long-term operational emissions; maximum incremental cancer risk and hazard indices for TACs; and maximum ambient concentrations for exposure of sensitive receptors to localized pollutants. If the project’s criteria pollutant and precursor emissions are below the SCAQMD daily regional thresholds, the project would not result in a cumulatively considerable net increase of any criteria pollutant, contribute substantially to a project air quality violation, or have an adverse effect on human health. If the project’s emissions of criteria pollutants, precursors, and TACs result in localized concentrations and/or risk values below the SCAQMD thresholds, the project’s impacts to sensitive receptors would be less than significant.

**Table 4.2-5  
 SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS**

<b>Mass Daily Thresholds (pounds per day)</b>		
<b>Pollutant</b>	<b>Construction</b>	<b>Operation</b>
VOC	75	55
NO <sub>x</sub>	100	55
CO	550	550
PM <sub>10</sub>	150	150
PM <sub>2.5</sub>	55	55
SO <sub>x</sub>	150	150
Lead	3	3
<b>Toxic Air Contaminants</b>		
TACs	Maximum Incremental Cancer Risk ≥ 10 in 1 million cases (in areas ≥ 1 in 1 million) Cancer Burden > 0.5 excess cancer Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
<b>Ambient Air Quality for Criteria Pollutants</b>		
NO <sub>2</sub>	1-hour average ≥ 0.18 ppm Annual average ≥ 0.03 ppm	
CO	1-hour average ≥ 20.0 ppm (state) 8-hour average ≥ 9.0 ppm (state/federal)	
PM <sub>10</sub>	24-hour average ≥ 10.4 µg/m <sup>3</sup> (construction) 24-hour average ≥ 2.5 µg/m <sup>3</sup> (operation) Annual average ≥ 1.0 µg/m <sup>3</sup>	
PM <sub>2.5</sub>	24-hour average ≥ 10.4 µg/m <sup>3</sup> (construction) 24-hour average ≥ 2.5 µg/m <sup>3</sup> (operation)	
SO <sub>2</sub>	24-hour average ≥ 25 µg/m <sup>3</sup>	

Source: SCAQMD 2015

lbs/day = pounds per day; VOC = volatile organic compound; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; PM<sub>10</sub> = respirable particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = fine particulate matter 2.5 microns or less in diameter; SO<sub>x</sub>: sulfur oxides; TACs: toxic air contaminants; GHG: greenhouse gas emissions; MT/yr: metric tons per year; NO<sub>2</sub>: nitrogen dioxide; ppm: parts per million; µg/m<sup>3</sup>: micrograms per cubic meter

## 4.2.4 Project Impacts and Mitigation

### 4.2.4.1 Issue 1: Conflicts with Air Quality Plans

*Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?*

#### Impact Analysis

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, economy, community development, and environment. With regard to air quality planning, SCAG has prepared the Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), a long-range transportation plan that uses growth forecasts to project trends over a 20-year period to identify regional transportation strategies to address mobility needs. These growth forecasts form the basis for the land use and transportation control portions of the AQMP. These documents are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. Both the RTP/SCS and AQMP are based, in part, on projections originating with County and City General Plans.<sup>2</sup>

The two principal criteria for determining conformance to the AQMP are:

1. Whether the project would result in an increase in the frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of air quality standards and
2. Whether the project would result in population or employment growth that exceeds the assumptions in the AQMP.

With respect to the first criterion, the analyses presented in Sections 4.2.4.2 and 4.2.4.3, below, demonstrate that the project would not generate short-term or long-term emissions that could potentially cause an increase in the frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of air quality standards. With respect to the second criterion, the purpose of the project is to implement the District's PWR project to increase local water supply reliability and decrease dependence on imported water. The project would manage the water system in accordance with expected population growth and would not result in population growth beyond estimates for the area. In addition, jobs associated with construction and operation of the project would likely be filled by the local labor pool and the project would not create conditions for employment growth that exceeds growth estimates for the area. Based on these considerations, the project would not exceed the projections of the RTP/SCS and AQMP. Therefore, the project would not conflict with or obstruct implementation of the AQMP, and the impact would be less than significant.

#### Mitigation Measures

Impacts related to conflict with or obstruction of the applicable air quality plan would be less than significant; therefore, no mitigation is necessary.

---

<sup>2</sup> SCAG serves as the federally designated MPO for the Southern California region.

#### 4.2.4.2 Issue 2: Air Quality Standards

*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?*

#### Impact Analysis

The project would generate criteria pollutants and precursors in the short-term during construction and the long-term during operation. To determine whether the project's emissions would result a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, contribute substantially to a projected air quality violation, or have an adverse effect on human health, the project's emissions were evaluated based on the quantitative emission thresholds established by the SCAQMD (as shown in Table 4.2-5). The project's emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2 (SCAQMD 2017b). CalEEMod is a computer model used to estimate criteria air pollutant resulting from construction and operation of land development projects throughout the state of California. CalEEMod was developed by the SCAQMD with the input of several air quality management and pollution control districts. As applicable to this analysis, the model calculates emissions of CO, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and the ozone precursors VOC and NO<sub>x</sub>. For the full scope of methodology and assumptions used in this analysis, refer to Appendix B.

#### Phase I Construction Emissions

The project's Phase I construction would result in temporary increases in air pollutant emissions. These emissions would be generated in the form of fugitive dust emissions (PM<sub>10</sub> and PM<sub>2.5</sub>) and ozone precursor emissions (NO<sub>x</sub> and VOCs). Operation of heavy equipment and vehicles during the construction phases would generate exhaust emissions from fuel combustion. Excavators, loaders, forklifts, pavers, generators, rollers, air compressors, backhoes, dozers, graders, dump trucks, compactors, welders, pumps, and cranes would be the primary equipment used for project construction. Fugitive dust emissions would be generated from earth disturbance during site grading, as well as from construction vehicles operating on open fields or dirt roadways within or adjacent to construction sites. Maximum daily emissions of NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from Phase I construction are anticipated to occur when the following activities occur simultaneously in 2022: AWTF building construction, brine management system grading, insertion/pulling pits excavation, pipeline sliplining, pipeline trenching, and pipeline installation. Maximum daily emissions of VOCs from Phase I construction are anticipated to occur during architectural coating of the AWTF in 2023. Emissions calculations assume application of water twice per day during grading, a 15-miles per hour (mph) speed limit on unpaved surfaces, and a 12 percent moisture content on unpaved roads in compliance with SCAQMD Rule 403, Fugitive Dust.

The results of the emissions calculations for these activities are shown in Table 4.2-6, *Maximum Daily Phase I Construction Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the thresholds identified previously in Table 4.2-6.

**Table 4.2-6  
MAXIMUM DAILY PHASE I CONSTRUCTION EMISSIONS**

<b>Activity</b>	<b>VOC*</b>	<b>NO<sub>x</sub>*</b>	<b>CO*</b>	<b>SO<sub>x</sub>*</b>	<b>PM<sub>10</sub>*</b>	<b>PM<sub>2.5</sub>*</b>
AWTF Building Construction - 2022	2	15	18	<0.5	10	2
Brine Management System Grading - 2022	4	34	24	<0.5	14	4
Insertion/Pulling Pit Excavation - 2022	<0.5	3	5	<0.5	<0.5	<0.5
Pipeline Sliplining - 2022	1	6	8	<0.5	<0.5	<0.5
Pipeline Trenching - 2022	<0.5	3	5	<0.5	<0.5	<0.5
Pipeline Installation - 2022	1	8	10	<0.5	1	<0.5
AWTF Architectural Coating – 2023	10	--	--	--	--	--
<b>Total Maximum Daily Emissions</b>	<b>10</b>	<b>69</b>	<b>70</b>	<b>&lt;0.5</b>	<b>25</b>	<b>7</b>
<i>Significance Thresholds</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<b>Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: HELIX 2021

Note: Emissions calculations assume application of water twice per day during grading, a 15 miles per hour (mph) speed limit on unpaved surfaces, and a 12 percent moisture content on unpaved roads in compliance with SCAQMD Rule 403, Fugitive Dust.

\* Pollutant Emissions (pounds per day)

VOC = volatile organic compound; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides;

PM<sub>10</sub> = respirable particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = fine particulate matter 2.5 microns or less in diameter

As shown in Table 4.2-6, emissions from Phase I construction activities would not exceed the SCAQMD daily thresholds; therefore, the project’s Phase I construction emissions would result in a less-than-significant impact.

### Phase I Operational Emissions

Main operational emissions include those from area sources, such as landscaping equipment and consumer products, mobile sources associated with traffic, on-site energy use, and stationary sources, such as generators. It was conservatively assumed that operation of Phase I would involve an average of 10 daily vehicle trips to the AWTF site, accounting for up to five staff members, occasional visitor tours, and 10 chemical deliveries per month. The electricity use associated with Phase I project operation was estimated to be 2,971,470 kilowatt hours (kWh) per year at the AWTF, consisting of electricity for the process equipment in the Process Area and for heating, ventilation, and air conditioning (HVAC) systems and lighting in the Control Area. Energy use associated with pumps operating at the brine ponds is estimated to be 1,303,842 kWh per year. A 12.47 kilovolt (kV)/400 kilowatt (kW) standby diesel generator would be provided at the AWTF site to be used in the event of power failure. An additional emergency generator may also be provided at the site. The generators were assumed to be tested for 30 minutes once per month.

Table 4.2-7, *Maximum Daily Phase I (2024) Operational Emissions*, presents the summary of operational emissions for Phase I of the project in year 2024.

**Table 4.2-7  
MAXIMUM DAILY PHASE I (2024) OPERATIONAL EMISSIONS**

Category	VOC*	NO <sub>x</sub> *	CO*	SO <sub>2</sub> *	PM <sub>10</sub> *	PM <sub>2.5</sub> *
Area	18	0.0	<0.5	0.0	0.0	0.0
Energy	0.0	0.0	0.0	0.0	0.0	0.0
Mobile	<0.5	<0.5	<0.5	0.0	<0.5	<0.5
Stationary	1	3	2	0.0	<0.5	<0.5
<b>Total Daily Emissions</b>	<b>19</b>	<b>3</b>	<b>3</b>	<b>0.0</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<i>Significance Thresholds</i>	55	55	550	150	150	55
<b>Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: HELIX 2021

\* Pollutant Emissions (pounds per day)

VOC = volatile organic compound; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide;

PM<sub>10</sub> = respirable particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = fine particulate matter 2.5 microns or less in diameter

As shown in Table 4.2-7, project emissions of all criteria pollutants during Phase I operation would be below the daily thresholds; therefore, the project's Phase I operational emissions would result in a less-than-significant impact.

### Concurrent Phase I Operations and Phase II Construction

Due to the anticipated project phasing, Phase I operations would likely occur concurrently with Phase II construction in year 2034. Table 4.2-8, *Concurrent Phase I Operational and Phase II Construction Emissions*, shows the maximum daily emissions from this anticipated overlap.

**Table 4.2-8  
CONCURRENT PHASE I OPERATIONAL AND PHASE II CONSTRUCTION EMISSIONS**

Category	VOC*	NO <sub>x</sub> *	CO*	SO <sub>2</sub> *	PM <sub>10</sub> *	PM <sub>2.5</sub> *
Phase I Operations (2034)	19	3	2	0.0	<0.5	<0.5
Phase II Construction	10	7	18	<0.5	1	<0.5
<b>Total Daily Emissions</b>	<b>29</b>	<b>10</b>	<b>20</b>	<b>&lt;0.5</b>	<b>1</b>	<b>&lt;0.5</b>
<i>Screening-Level Thresholds</i>	55	55	550	150	150	55
<b>Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: HELIX 2021

Note: Construction emissions calculations assume application of water twice per day during grading, a 15-miles per hour (mph) speed limit on unpaved surfaces, and a 12 percent moisture content on unpaved roads in compliance with SCAQMD Rule 403, Fugitive Dust.

\* Pollutant Emissions (pounds per day)

VOC = volatile organic compound; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide;

PM<sub>10</sub> = respirable particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = fine particulate matter 2.5 microns or less in diameter

As shown in Table 4.2-8, the combined Phase I operational emissions and Phase II construction emissions would be below the significance threshold for all criteria pollutants; therefore, the project's concurrent Phase I operational and Phase II construction emissions would result in a less-than-significant impact.

## Phase II Operations

Phase II (full) project operational emissions sources would be the same as those from Phase I, including those from area sources, such as landscaping equipment and consumer products, mobile sources associated with traffic, and on-site energy use. Phase II involves an increase in vehicle trips associated with increased chemical deliveries and increased energy use associated with the increased treatment capacity. An average of 11 daily trips was assumed. The electricity usage during operation of Phase II was estimated to be 10,764,116 kWh per year. The energy usage associated with the brine ponds would remain the same at 1,303,842 kWh per year.

Table 4.2-9, *Maximum Daily Phase II Operational Emissions*, presents the summary of operational emissions for Phase II of the project in year 2035.

**Table 4.2-9  
 MAXIMUM DAILY PHASE II OPERATIONAL EMISSIONS**

Category	VOC*	NO <sub>x</sub> *	CO*	SO <sub>2</sub> *	PM <sub>10</sub> *	PM <sub>2.5</sub> *
Area	20	0.0	<0.5	0.0	0.0	0.0
Energy	0.0	0.0	0.0	0.0	0.0	0.0
Mobile	<0.5	<0.5	<0.5	0.0	<0.5	<0.5
Stationary	1	3	2	0.0	<0.5	<0.5
<b>Total Daily Emissions</b>	<b>21</b>	<b>3</b>	<b>3</b>	<b>0.0</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<i>Screening-Level Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<b>Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: CalEEMod (output data is provided in Appendix A)

Note: Total is the sum of the unrounded values.

\* Pollutant Emissions (pounds per day)

VOC = volatile organic compound; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide;

PM<sub>10</sub> = respirable particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = fine particulate matter 2.5 microns or less in diameter

As shown in Table 4.2-9, project emissions of all criteria pollutants during full Phase II project operations would be below the daily thresholds; therefore, the project's Phase II operational emissions would result in a less-than-significant impact.

## Conclusion

The region is a federal and/or state nonattainment area for PM<sub>10</sub>, PM<sub>2.5</sub>, and ozone. As shown above and in Section 4.2.4.3 below, the project would not result in emissions of PM<sub>10</sub>, PM<sub>2.5</sub>, or the ozone precursors NO<sub>x</sub> and VOCs during construction that would exceed regional or local thresholds and would therefore not be cumulatively considerable. Long-term emissions, as shown in Table 4.2-9, would be well below regional thresholds and, therefore, not cumulatively considerable. Impacts associated with emissions resulting in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment are assessed as less than significant.

## Mitigation Measures

Impacts related to emissions resulting in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment would be less than significant; therefore, no mitigation is necessary.

#### 4.2.4.3 Issue 3: Sensitive Receptors

*Would the proposed project expose sensitive receptors to substantial pollutant concentrations?*

### Impact Analysis

#### Construction Activities

##### *Criteria Pollutants*

The localized effects from the on-site portion of daily construction emissions were evaluated at sensitive receptor locations potentially impacted by the project according to the SCAQMD's localized significance threshold (LST) methodology. The LST methodology and associated mass rate look-up tables by source receptor area (SRA) can be used to determine whether a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard; they are developed based on the ambient concentrations of that pollutant for each SRA (SCAQMD 2009).

The proposed project would involve various components that would be constructed at different locations, thus affecting different receptors, and at different times (Phase I vs. Phase II); therefore, the following four construction components were assessed separately for localized air quality impacts: (1) Phase I combined AWTF and brine management system construction; (2) Phase I pipeline sliplining; (3) Phase I pipeline installation; and (4) Phase II AWTF expansion. For each component, the phase resulting in maximum emissions was analyzed. Note that although construction of the AWTF and brine management system would occur at set locations and have the potential to affect a given receptor for the entirety of the construction phase, construction associated with the pipelines would progress along the alignments (an average of 80 feet per day for the 36-inch pipeline) and would not affect a given receptor for the entirety of the construction phase.

Consistent with the LST guidelines, when quantifying mass emissions for localized analysis, only emissions that occur on-site are considered. Emissions related to off-site delivery and material transport truck trips and construction worker trips are not considered in the evaluation of construction-related localized impacts, as these do not contribute to emissions generated on a project site. The LSTs being applied to the project are based on SRA 28, Hemet/San Jacinto Valley. As shown in Table 4.2-10, *Maximum Localized Daily Construction Emissions*, localized emissions would not exceed the SCAQMD LSTs. Therefore, project construction would not expose sensitive receptors to substantial criteria pollutant concentrations, and impacts would be less than significant.

**Table 4.2-10  
MAXIMUM LOCALIZED DAILY CONSTRUCTION EMISSIONS**

Phase(s)				
<b>Phase I Combined AWTF and Brine Management System Construction</b>				
AWTF Building Construction	34	23	5	3
Brine Management System Grading	13	17	1	1
<b>Total Daily Emissions</b>	<b>47</b>	<b>40</b>	<b>6</b>	<b>4</b>
<i>Localized Significance Thresholds</i>	<i>1,072</i>	<i>29,256</i>	<i>207</i>	<i>105</i>
<b>Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Phase I Pipeline Sliplining</b>				
Insertion/Pulling Pits Excavation	3	5	<0.5	<0.5
Pipeline Sliplining	5	8	<0.5	<0.5
<b>Total Daily Emissions</b>	<b>8</b>	<b>12</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<i>Localized Significance Thresholds</i>	<i>162</i>	<i>750</i>	<i>4</i>	<i>3</i>
<b>Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Phase I Pipeline Installation</b>				
Pipeline Trenching	3	5	<0.5	<0.5
Pipeline Installation	7	10	<0.5	<0.5
<b>Total Daily Emissions</b>	<b>10</b>	<b>15</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<i>Localized Significance Thresholds</i>	<i>162</i>	<i>750</i>	<i>4</i>	<i>3</i>
<b>Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Phase II AWTF Expansion</b>				
Building Construction	6	17	<0.5	<0.5
<b>Total Daily Emissions</b>	<b>6</b>	<b>17</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<i>Localized Significance Thresholds</i>	<i>896</i>	<i>23,866</i>	<i>178</i>	<i>86</i>
<b>Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Note: Totals may not add up due to rounding.

\* Pollutant Emissions (pounds per day)

NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; PM<sub>10</sub> = respirable particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = fine particulate matter 2.5 microns or less in diameter; AWTF = Advanced Water Treatment Facility

### Toxic Air Contaminants

Construction activities would result in short-term, project-generated emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment. CARB identified diesel PM as a TAC in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment, HRAs, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project.

The construction period would be relatively short when compared to a 30-year exposure period. In addition, the construction would occur at various locations over a large area, and a large amount of equipment would not occur near a single sensitive receptor for an extended period of time. As described above, construction associated with the pipelines would progress along the alignments (an average of 80 feet per day for the 36-inch pipeline) and would not affect a given receptor for the entirety of the

construction phase. Combined with the highly dispersive properties of diesel PM and additional reductions in exhaust emissions from improved equipment, construction-related emissions would not expose sensitive receptors to substantial emissions of diesel PM.

## **Operational Activities**

### *Carbon Monoxide Hotspots*

A CO hotspot is an area of localized CO pollution caused by severe vehicle congestion on major roadways, typically near intersections. A quantitative screening is required in two instances: (1) if a project increases the average delay at signalized intersections operating at Level of Service (LOS) E or F; or (2) if a project causes an intersection that would operate at LOS D or better without the project to operate at LOS E or F with the project. Vehicular traffic generated during operation of the proposed project would be limited to daily commute trips for up to five staff members at the AWTF site, chemical delivery trips (estimated at 10 trips per month during Phase I and 11 trips per month during Phase II), and occasional trips associated with public tours of the AWTF site. This would result in a low number of average daily vehicle trips and the project would neither cause new severe congestion nor significantly worsen existing congestion at nearby intersections. There would be no potential for a CO hotspot or exposure of sensitive receptors to substantial, project-generated, local CO emissions. The impact would be less than significant.

### *Toxic Air Contaminants*

With regard to long-term operations, a new source of TACs includes two backup diesel generators. The backup generator would only be used for testing or during emergency situations. It is anticipated to be tested for 30 minutes per month, equating to 6 hours of operation per year. At this length of operation, the generators would emit negligible TACs. As shown in Tables 4.2-7 and 4.2-9, above, operational emissions of PM from stationary sources (which include the generators) would be less one pound per day. The proposed pumps and other equipment at the AWTF would be electrically powered and would not generate on-site emissions of TACs.

Impacts related to exposure of sensitive receptors to substantial pollutant concentrations during project construction and operation would be less than significant.

## **Mitigation Measures**

Impacts related to the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant; therefore, no mitigation is necessary.

### **4.2.4.4 Issue 4: Odors**

*Would the proposed project result in other emissions such as those leading to odors adversely affecting a substantial number of people?*

## **Impact Analysis**

Implementation of the proposed project could have the potential to generate objectionable odors through construction activities and during operation of some of the project components, as discussed below.

## Construction

Construction activities are not a typical source of nuisance odors, although construction could result in minor amounts of odorous compounds associated with diesel heavy equipment exhaust or evaporation of volatile compounds within paint or other coatings. The smell of diesel exhaust is due in most part to the presence of sulfur and the creation of hydrocarbons during combustion (Nett Technologies 2018). As shown above, project construction would not result in significant emissions of sulfur oxides.

Additionally, because project construction would occur at various locations for the different project components, use of construction equipment would not occur all at once or at the same location. Odorous hydrocarbons emissions would also dissipate beyond the emissions sources and would only affect residents in the immediate vicinity of the construction sites. Potentially affected residents would be limited to those at residential properties adjacent to the conveyance pipelines construction along SR 79 and Ramona Expressway. Construction of the conveyance pipelines would occur in a linear manner and equipment would not operate, and odorous hydrocarbons would not be emitted, adjacent to a given residential location for extended periods of time. There are no residents in the vicinity of the A WTF or brine ponds construction sites that would be affected by construction-related odors. Construction odor emissions would also be temporary and would cease upon completion of construction. Odor impacts associated with project construction would be less than significant.

## Operation

CARB's Air Quality and Land Use Handbook includes a list of the most common sources of odor complaints received by local air districts. Typical sources of odor complaints include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations.

While the proposed project would involve water treatment, the treatment process would use recycled water that has already undergone tertiary treatment. The primary odor associated with sewage water treatment is from the release of odorous hydrogen sulfide from the anaerobic decomposition of organic compounds that occurs when treating the sewage. The tertiary recycled water that would be used in the advanced water treatment process would have already gone through this process. In other words, the water that would be used in the project's advanced water treatment process is relatively clean and would not involve the same odor generation as a sewage treatment process. In addition, the project's advanced water treatment process, including the use and storage of chemicals, would occur within closed tanks and pipes and would not emit vapors into the air.

The proposed brine management system would accommodate and store the waste product from the advanced water treatment process, which would be a brine (i.e., salt) concentrate. The main compounds in the brine concentrate would include the anions and cations of chloride, nitrate, sulfate, potassium, and sodium, which are non-odorous compounds that occur widely in everyday life. The brine management system would function by storing the waste product and evaporating out water, thus leaving behind the salt compounds. The evaporated water droplets would be contained within the brine management system, per state regulations. As such, the storage of the project's advanced water treatment process waste would not emit objectionable odors off site. In addition, there are no residents within the vicinity of the proposed brine management system site.

The conveyance pipelines would be the only operational components of the project that would be located in proximity to residents that could be affected by objectionable odors, as the pipelines would run adjacent to single-family residences located along Ramona Expressway. The conveyance pipelines,

however, would convey advanced treated water and would be located below ground; therefore, they would not be a source of odors to nearby residents.

As such, operation of the proposed project would not result in significant objectionable odors and impacts would be less than significant.

### **Mitigation Measures**

Impacts related to the project resulting in other emissions such as those leading to odors adversely affecting a substantial number of people would be less than significant; therefore, no mitigation is necessary.

This page intentionally left blank

## 4.3 BIOLOGICAL RESOURCES

This section addresses the potential impacts of the proposed project to biological resources. The following discussion includes a description of existing conditions as related to biological resources, a summary of applicable regulations, and an evaluation of the proposed project’s potential environmental effects associated with biological resources, including special-status species, sensitive natural communities, wetlands, wildlife movement, and local policies and plans protecting biological resources. The section is based on the Biological Technical Report prepared for the proposed project (HELIX 2020a; Appendix C). Information included in the Biological Technical Report was obtained through a literature review related to biological resources, a general biological survey, focused biological surveys, vegetation mapping, and a jurisdictional delineation. The study area included the various project components with a 100-foot buffer.

### 4.3.1 Existing Conditions

#### 4.3.1.1 Vegetation Communities/Land Covers

Vegetation communities present within the study area were mapped based on the Holland/Oberbauer classification system and cross-walked to the Manual of California Vegetation (MCV). For communities not described by the MCV, the communities were described using the Holland/Oberbauer code distribution. Six vegetation communities/land covers are present within the study area, including red willow association (southern willow scrub), open water, California buckwheat association (Riversidian sage scrub), field/pasture, disturbed habitat, and urban/developed. Acreages of each vegetation community/land cover that is present within the study area are shown in Table 4.3-1, *Vegetation Communities and Land Covers*.

**Table 4.3-1  
 VEGETATION COMMUNITIES AND LAND COVERS**

<b>Vegetation Community/Land Cover</b>	<b>Acres</b>
Red Willow Association (Southern Willow Scrub)	8.13
Open Water	2.06
California Buckwheat Association (Riversidian Sage Scrub)	0.48
Field/Pasture	72.80
Disturbed Habitat	50.47
Urban and Developed	88.43
<b>Total</b>	<b>222.38</b>

Source: HELIX 2020a

Note: Totals may not add up exactly due to rounding.

These vegetation communities/land covers are described below (refer to Figure 4.3-1, *Vegetation and Sensitive Resources/Land Use Impacts*).

#### **Red Willow Association (Southern Willow Scrub)**

Red willow association or southern willow scrub consists of dense, broadleaved, winter-deciduous stands of trees dominated by shrubby willows (*Salix* spp.) in association with mule fat (*Baccharis salicifolia*), and with scattered emergent cottonwood (*Populus fremontii*) and western sycamores (*Platanus racemosa*). This vegetation community occurs on loose, sandy or fine gravelly alluvium

deposited near stream channels during flood flows. Within the study area, this habitat is dominated by red willow (*Salix laevigata*). A total of 8.13 acres of southern willow scrub occurs within the study area, located along the portion of the alignment of the 18-inch pipeline to be sliplined between Sanderson Avenue and Lyon Avenue (refer to Figures 4.3-1b and 4.3-1c).

### **Open Water**

Open water is an unvegetated habitat. It is made up of year-round bodies of saline or fresh water. Fresh water bodies include lakes, streams, ponds, or rivers. A total of 2.06 acres of open water occurs within the study area associated with a pond feature east of Sanderson Avenue and the Alessandro Ponds (refer to Figures 4.3-1b, 4.3-1c, and 4.3-1f).

### **California Buckwheat Association (Riversidian Sage Scrub)**

California buckwheat association or Riversidian sage scrub is the most xeric expression of coastal sage scrub, typically found on xeric sites such as steep slopes, severely drained soils, or clays that release stored soil moisture slowly. Typical stands are fairly open and dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*), and foxtail chess (*Bromus madritensis* ssp. *rubens*). Riversidian sage scrub within the study area is dominated by California buckwheat and felt-leaved yerba santa (*Eriodictyon crassifolium*). A total of 0.48 acre of Riversidian sage scrub occurs within the study area at the northeast and southeast corners of the intersection of Ramona Expressway and Main Street, adjacent to the proposed 36-inch pipeline alignment (refer to Figure 4.3-1h).

### **Field/Pasture**

In fields/pastures, planted fields are usually monoculture crops that are irrigated and usually artificially seeded and maintained. A total of 72.80 acres of field/pasture occurs within the study area along the entire project alignment, with a large portion of the mapped acreage occurring at the site of the proposed brine management system (refer to Figure 4.3-1a).

### **Disturbed Habitat**

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat. Within the study area, disturbed habitat consists of bare ground with scattered annual non-native species including mustard (*Brassica* ssp.), Russian thistle (*Salsola tragus*) and filaree (*Erodium cicutarium*). Disturbed habitat covers 50.47 acres of the study area and consists of dirt roads and undeveloped land adjacent to roadsides. Disturbed habitat within the study area occurs adjacent to most of the project alignment (refer to Figures 4.3-1a through 4.3-1i).

### **Urban/Developed**

Urban/developed land includes areas that have been constructed upon or otherwise covered with a permanent, unnatural surface and may include, for example, structures, pavement, irrigated landscaping, or hardscape to the extent that no natural land is evident. These areas no longer support native or naturalized vegetation. Developed portions of the study area consist of paved roads,

residential developments, and access paths with compacted soil/gravel. A total of 88.43 acres of urban/developed land occurs in the study area adjacent to most of the project alignment, except for where the project alignment is within field/pasture areas (refer to Figures 4.3-1a through 4.3-1i).

#### **4.3.1.2 Plants**

A total of 86 plant species were observed within the study area during the general biological survey and focused species surveys, of which 49 (57 percent) are non-native species (refer to Appendix C for a complete list of plant species observed). The predominance of non-native species is indicative of the high degree of disturbance as a result of historical and current uses of the study area.

#### **4.3.1.3 Animals**

A total of 45 animal species were observed/detected within the study area during the general biological survey and focused species surveys, including one butterfly, two reptiles, one amphibian, and 38 bird species (refer to Appendix C for a complete list of animal species observed or detected).

#### **4.3.1.4 Sensitive Resources**

##### **Sensitive Vegetation Communities/Habitats**

Sensitive vegetation communities/habitat types are defined as land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the State *CEQA Guidelines*.

The CDFW evaluates the rarity of natural communities using the NatureServe's Heritage Methodology (Faber-Langendoen et. al 2012) in which communities are given a G (global) and S (State) rank based on their degree of imperilment (as measured by rarity, trends, and threats). Communities are assigned an overall rank of 1 through 5 with 1 being considered very rare and threatened and 5 being considered demonstrably secure. Communities with a Rarity Ranking of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) are considered sensitive by the CDFW.

Vegetation types used by the CDFW follow the National Vegetation Classification System (NVCS) using the MCV, 2<sup>nd</sup> Edition (Sawyer et al. 2009). The MCV serves as the California extension of the NVCS. The MCV classifies vegetation based on floristic and structural details that are represented as alliances and associations. Vegetation mapped within the Study Area followed Holland (1986). Direct translations between Holland and MCV do not exist for all vegetation types. Additionally, a single vegetation community under Holland may fit the definition of several different alliances or associations described within the MCV. Vegetation communities mapped within the Study Area were translated to the equivalent classification unit under MCV in order to determine sensitivity rankings. For communities that do not have direct translations within MCV, professional judgment was used to find the best corresponding association or alliance.

One sensitive vegetation community occurs within the study area: southern willow scrub. Riversidian sage scrub dominated by California buckwheat has a ranking of S5; therefore, it is not considered a sensitive vegetation community. Disturbed habitat, field/pasture, open water, and developed lands also do not meet the definition of sensitive habitat under CEQA. Impacts to these vegetation communities do not require mitigation.

## Special Status Plant Species

Special status plant species have been afforded special status and/or recognition by the U.S. Fish and Wildlife Service (USFWS), CDFW, and/or the County, and may also be included in the California Native Plant Society's (CNPS') Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. Sensitive species are those considered unusual or limited in that they are: (1) only found in the region; (2) a local representative of a species or association of species not otherwise found in the region; or (3) severely depleted within their ranges or within the region.

In addition to the general biological survey conducted for the study area, a rare plant survey of the was conducted during two survey events in spring and early summer 2020. The rare plant survey included a complete botanical inventory and 100 percent visual coverage of the study area. The survey periods were determined based on the recorded blooming periods of special status plant species known to occur within the study area and surrounding area. The first survey was conducted in April 2020 to detect early blooming spring annual species. The second survey period was conducted in June 2020 to detect late-blooming spring annual species. A list of rare plants with potential to occur was compiled and reviewed for habitat suitability. Two sensitive plant species were observed within the study area: smooth tarplant (*Centromadia pungens* ssp. *laevis*) and chaparral (foothill) sand-verbena (*Abronia villosa* var. *aurita*). Smooth tarplant was predominantly observed near the existing SJVRWRF and along the portion of the 18-inch pipeline to be sliplined located near Sanderson Road. Chaparral (foothill) sand-verbena was predominantly observed along the southern-most portion of the proposed 36-inch pipeline alignment, along Ramona Expressway. Refer to Figure 4.3-1.

Additional special status plant species that were not observed may have potential to occur within the study area. These species are listed in Appendix C. No additional plant species have a high potential to occur based on geographic range, elevation range, and/or lack of suitable habitat in the study area.

## Special Status Animal Species

Special status animal species include those that have been afforded special status and/or recognition by the USFWS and/or CDFW. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

Two special status animal species were observed within or adjacent to the study area during the 2020 biological surveys. An individual (single, unpaired) least Bell's vireo (*Vireo bellii pusillus*) was observed within suitable riparian habitat that occurs within the study area adjacent to the 18-inch pipeline to be sliplined (refer to Figure 7c of Appendix C). Suitable riparian habitat does not occur elsewhere within the study area. A group of white-faced ibis (*Plegadis chihi*) were observed flying over the proposed AWTF.

Special status animal species that were not observed or otherwise detected, but determined to have some potential to occur on-site are included in Appendix C. None of the species analyzed have a high potential to occur within the project site based on geographic range, elevation range, and/or lack of suitable habitat. Two special status species are known from the local area but are not expected to occur within the project site itself due to lack suitable habitat: burrowing owl (*Athene cunicularia*) and San Bernardino kangaroo rat (*Dipodomys merriami parvus*).

Breeding season surveys for the burrowing owl were conducted for the project in accordance with the survey guidelines in the *CDFW 2012 Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Due to unforeseen circumstances, the first burrowing owl survey was conducted one week later than recommended protocol; however, all surveys were completed during the peak of the breeding season and the circumstances did not change the quality of the data collected or the results of the survey. Four site visits were made from April 24, 2020 through July 2, 2020 to survey potential burrowing owl habitat (i.e., non-native grassland, disturbed habitat, and scrub communities where the shrub cover was sparse) where it occurs in the study area and 500 feet beyond. Much of the potential burrowing owl habitat in the study area was inspected with the aid of binoculars due to restricted access to private property. The surveys were conducted by walking meandering transects through areas of potential habitat where it was legally accessible. Fence posts, rocks, and other possible perching locations, as well as mammal burrows (especially those of California ground squirrel [*Otospermophilus beecheyi*]) potentially suitable for use by burrowing owls were inspected and mapped with a hand-held GPS unit. These burrows were specifically searched for sign of recent burrowing owl occupation including pellets with regurgitated fur, bones, and insect parts; white wash (excrement); and feathers. In addition, structures such as concrete culverts/piles, wood debris piles, trash piles, and openings beneath cement or asphalt pavement that were present were checked for burrowing owl sign.

Burrowing owl was not detected during the protocol-level surveys and is presumed to be absent from the study area. A total of 32 potential burrows were recorded within the study area but sign of burrowing owl presence or use was not observed at any of the burrows.

San Bernardino kangaroo rat and sign of the species (e.g., potential burrows, tail drags, suitable substrate) was not detected during the 2020 biological surveys. No portions of the project site support suitable habitat for the species due to existing developments and land uses, in addition to previous and ongoing intensive soil disturbance as a result of agricultural practices and roadway maintenance.

No other species have high potential to occur based on geographic range, elevation range, and/or lack of suitable habitat in the project site.

### **Nesting Birds**

Trees and shrubs both within and adjacent to the study area could provide suitable nesting habitat for numerous bird species known to the region.

### **Raptor Foraging**

Two raptor species were observed near the study area during the biological survey (red-tailed hawk [*Buteo jamaicensis*] and turkey vulture [*Cathartes aura*]) and several others have potential to forage in the project vicinity. The project site does not provide high-quality raptor habitat due to the active agricultural, residential, and transportation uses. Extensive raptor foraging habitat occurs off-site in the project vicinity within undeveloped fallow and dry-farmed lands in the San Jacinto Valley.

#### **4.3.1.5 Jurisdictional Waters and Wetlands**

In the context of this analysis, jurisdictional waters and wetlands include waters of the U.S., including wetlands regulated by the U.S. Army Corps of Engineers (USACE) pursuant to the CWA Section 404; waters of the State regulated by the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act; and/or streambed and

riparian habitat regulated by the CDFW pursuant to Sections 1600 *et seq.* of the California Fish and Game Code (CFG Code).

A field-based jurisdictional delineation of the study area was conducted for the project on May 5, 2020 to identify and map potentially jurisdictional aquatic resources. Prior to the delineation, recent aerial photographs, topographic maps, soil mapping, National Wetlands Inventory mapping, and U.S. Geological Survey (USGS) topographical maps were reviewed to determine the location of potential jurisdictional areas. The delineation was conducted on foot with the aid of aeriels and topographic maps. Potential aquatic resources evaluated within the study area included drainage features, depressions, and/or wetland vegetation that crossed or were adjacent to the proposed project impact areas.

Potential waters of the U.S., waters of the State, and CDFW jurisdictional habitat are present within the study area (refer to Figure 4.3-2, *Aquatic Resources Avoidance*). The delineation methodologies for each type of jurisdictional water and wetlands are discussed below.

### **Waters of the U.S.**

Potential USACE-jurisdictional waters of the U.S. were generally determined based on the presence of a discernible ordinary high water mark (OHWM) and/or wetland conditions expressed by three parameters (vegetation, hydrology, and soils) established for wetland delineations. Mapping of drainage features was performed in the field based on the OHWM and surface indications of hydrology. Sampling points were inspected for primary and secondary wetland hydrology indicators. Areas were determined to be potential wetland waters of the U.S. if there was a dominance of hydrophytic vegetation, hydric soils, and wetland hydrology indicators. Areas were determined to be non-wetland waters of the U.S. if there was evidence of regular surface flow within an OHWM, but the vegetation and/or soils criterion were not met.

Ten locations with potential aquatic resources were identified and evaluated on and immediately adjacent to the study area.

### **Regional Water Quality Control Board Jurisdictional Waters**

Potential RWQCB-jurisdictional areas were delineated in the same manner as potential waters of the U.S. All waters of the State are subject to jurisdiction pursuant to CWA Section 401. Ephemeral features, while not considered waters of the U.S., were determined to be waters of the State under exclusive regulatory jurisdiction of the RWQCB pursuant to the State Porter-Cologne Water Quality Control Act.

### **California Department of Fish and Wildlife Jurisdictional Areas**

Potential CDFW-jurisdictional streambed and riparian habitat were determined based on the presence of riparian vegetation or regular surface flow within a measurable bed and bank. Streambeds within CDFW jurisdiction were delineated based on the definition of streambed as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that support riparian vegetation” (Title 14, Section 1.72). Potential CDFW-jurisdictional unvegetated streambed encompasses the top-of-bank to top-of-bank width for the features within the study area. Riparian habitat is not defined in Title 14, but the section refers to vegetation and habitat associated with a stream. The CDFW

jurisdictional habitat includes all riparian shrub or tree canopy that may extend beyond the banks of a stream.

#### **4.3.1.6 Wildlife Corridor/Core Wildlife Areas**

Wildlife corridors connect otherwise isolated pieces of habitat and allow movement or dispersal of plants and animals. Wildlife corridors can be local or regional in scale and may function in different ways depending on species and time of year. Wildlife corridors represent areas where wildlife movement is concentrated due to natural or manufactured constraints. Local corridors provide access to resources such as food, water, and shelter. Animals can use these corridors, such as hillsides and tributary drainages to main drainages, to travel among different habitats (i.e., riparian, and upland habitats). Some animals require riparian habitat for breeding and upland habitat for burrowing. Regional corridors provide these functions and also link two or more large areas of open space. Regional corridors also provide avenues for wildlife dispersal, migration, and contact between otherwise distinct populations. The project is not located within any linkages recognized by the South Coast Missing Linkages report (South Coast Wildlands 2008) or MSHCP.

### **4.3.2 Regulatory Framework**

#### **4.3.2.1 Federal**

##### **Federal Endangered Species Act**

Administered by the USFWS, the federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered take under the ESA. Section 9(a) of the ESA defines take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” “Harm” and “harass” are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species’ behavioral patterns.

Sections 7 and 4(d) of the federal ESA regulate actions that could jeopardize endangered or threatened species. Section 7, administered by the USFWS, describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. A Section 7 Consultation (formal or informal) is required when there is a nexus between a listed species’ use of a site and if the project is funded (wholly or in part) by the State Revolving Fund. A biological assessment is required for any major construction activity if it may affect listed species. Take can be authorized via a letter of Biological Opinion, issued by the USFWS, for non-marine related listed species issues. The project would be funded in part by the State Resolving Fund. A Section 7 Consultation would be required if impacts to a federally listed species would occur.

Identified by the USFWS, critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitat, so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the federal ESA, all federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat.

## **Migratory Bird Treaty Act**

All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is used to place restrictions on disturbance of active bird nests during the nesting season (generally February 1 to August 31). In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

## **Clean Water Act and Rivers and Harbors Act**

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the CWA. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting for projects filling waters of the U.S. is overseen by the USACE under Section 404 of the CWA. Most development projects are permitted using Individual Permit or Nationwide Permit instruments.

### **4.3.2.2 State**

## **California Environmental Quality Act**

Primary environmental legislation in California is found in CEQA and its implementing guidelines (*State CEQA Guidelines*), which require that projects with potential adverse effects (i.e., impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

## **California Endangered Species Act**

The California Endangered Species Act (CESA) established that it is state policy to conserve, protect, restore, and enhance state endangered species and their habitats. Under state law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. The CESA authorizes that private entities may “take” plant or wildlife species listed as endangered or threatened under the ESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFG Code Section 2080.1[a]). For state-only listed species, Section 2081 of CFG Code authorizes the CDFW to issue an Incidental Take Permit for state listed threatened and endangered species if specific criteria are met. The MSCP is a regional Natural Communities Conservation Plan that was granted take coverage under Section 2081 of the CESA.

## **Native Plant Protection Act**

Sections 1900–1913 of the CFG Code (Native Plant Protection Act; NPPA) direct the CDFW to carry out the state legislature’s intent to “...preserve, protect, and enhance endangered or rare native plants of this state.” The NPPA gives the California Fish and Game Commission the power to designate native plants as “endangered” or “rare” and protect endangered and rare plants from take.

## California Fish and Game Code

The CFG Code provides specific protection and listing for several types of biological resources. Section 1600 of CFG Code requires a Streambed Alteration Agreement (SAA) for any activity that would alter the flow, change, or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake. Typical activities that require an SAA include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement. Notification is required prior to any such activities.

Pursuant to CFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS.

## Western Riverside Multiple Species Habitat Conservation Plan

The MSHCP is a comprehensive, multi-jurisdictional HCP focusing on the conservation of species and their associated habitats in Western Riverside County. The MSHCP allows the County and its incorporated cities to better control local land use decisions and maintain strong economic function in the region while addressing the requirements of the state and federal Endangered Species Acts. Rather than addressing sensitive species on an individual basis, the MSHCP focuses on the conservation of 146 species, proposing a reserve system of approximately 500,000 acres and a mechanism to fund and implement the reserve system. Most importantly, the MSHCP allows participating entities to issue take permits for listed species so that individual applicants need not seek their own permits from the USFWS and/or CDFW. The MSHCP was adopted on June 17, 2003 by the Riverside County Board of Supervisors. The Incidental Take Permit was issued by both the USFWS and CDFW on June 22, 2004.

The District is not a signatory to the MSHCP, and as such is not subject to the requirements of the MSHCP, though a discussion regarding project consistency with the MSHCP is provided in this EIR for informational purposes.

### 4.3.3 Thresholds of Significance

The significance of impacts to biological resources present or those with potential to occur was determined based upon the sensitivity of the resource and the extent of the anticipated impacts. For certain highly sensitive resources (e.g., a federally listed species), any impact would be significant. Conversely, other resources that are of low sensitivity (e.g., species with a large, locally stable population in the County but declining elsewhere) could sustain some impact with a less-than-significant effect.

The following criteria from Appendix G of the *CEQA Guidelines* are used as thresholds of significance to determine the impacts of the proposed project as related to biological resources. The proposed project would have a significant impact if it would:

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

#### **4.3.4 Project Impacts and Mitigation**

##### **4.3.4.1 Issue 1: Special Status Species**

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

#### **Impact Analysis**

##### **Special Status Plant Species**

Two non-listed sensitive plant species were observed within the study area and are present along portions of the project alignment: smooth tarplant and chaparral sand-verbena (refer to Figure 4.3-1). Smooth tarplant generally occurs along the western portion of the alignment of the 18-inch pipeline to be sliplined. Chaparral sand-verbena generally occurs along the southern portion of the proposed 36-inch pipeline alignment. Smooth tarplant and chaparral sand-verbena are both a California Rare Plant Rank (CRPR) 1B.1 species. As a CRPR 1B.1 plant species, both smooth tarplant and chaparral sand-verbena have been assigned to a watch list for plants of reported limited distribution and moderate degree and immediacy of threat by the CNPS.

Potential impacts on smooth tarplant and chaparral sand-verbena would be limited to a very low number of individuals. Approximately eight individuals of smooth tarplant and three individuals of sand-verbena could be affected by construction. The project would avoid approximately 43 individuals of smooth tarplant (99 percent) and 10 individuals of sand-verbena (79 percent) that were mapped within

the study area. The individuals that may be affected are scattered in their local arrangement and are not part of a core population in the local or regional area.

There are numerous documented occurrences of these species throughout the surrounding area indicating that the study area does not represent a geographically significant population. Given the low number of individuals that could be affected and numerous recorded occurrences within the project vicinity (both within and outside of the study area along the adjacent San Jacinto River corridor, in particular), the potential impacts are considered to be less than significant. However, if project work limits are exceeded, the impacts could increase in severity and could represent a potentially significant impact. Therefore, mitigation measures MM-BIO-1 and MM-BIO-2, which involve the installation of temporary construction fencing and biological monitoring in areas where work limits occur adjacent to known sensitive resources, would be required.

The project would have no impact on federal or State listed plant species.

### **Special Status Animal Species**

#### *San Bernardino Kangaroo Rat*

San Bernardino kangaroo rat and sign of the species (e.g., potential burrows, tail drags, suitable substrate) was not detected during the 2020 biological surveys. No portions of the project site support suitable habitat for the species due to existing developments and land uses, in addition to previous and ongoing intensive soil disturbance as a result of agricultural practices and roadway maintenance. The southeastern portion of the project site occurs within areas mapped as USFWS critical habitat for the San Bernardino kangaroo rat. This portion of the project site comprises the disturbed and developed right-of-way associated with the Ramona Expressway where the 36-inch pipeline is proposed to be installed.

The project site at this location was inspected for the presence or absence of the Primary Constituent Elements (PCE; the physical and biological features that are essential to the conservation of the subspecies) required for this species. Alluvial fans, washes, and associated floodplain habitat consisting of predominantly sandy soils with open sage scrub habitat do not occur within the project site. Additionally, suitable upland areas adjacent to alluvial fan habitat with sandy soils and open sage scrub that provide foraging or repopulation opportunities do not occur within the project site. This species prefers burrowing and foraging in soils deposited by alluvial processes, which are found further east of the study area along the San Jacinto River corridor. Habitat within the project site consists of disturbed, compacted soils mainly along road shoulders and lacks open sage scrub habitat, which would exclude this species from occurring within the project site. While this species may occur along the San Jacinto River east of the project site, existing barriers to movement (i.e., levee, vertical banks, fences, developments) occur between the river and the project site that preclude this species from traveling onto the project site. In addition, installation of temporary construction fencing along project impact limits per mitigation measure MM-BIO-1 (mentioned below), which would prevent inadvertent encroachment beyond work limits, would further prevent the species from entering the project work areas during construction. Therefore, no direct or indirect impacts on the species or its critical habitat are anticipated.

### *Nesting Birds*

The project would require the removal of non-sensitive vegetation and other potential nesting habitat for common birds and raptors protected under the MBTA and CFG Code. Impacts on active nests belonging to bird species protected under the MBTA and CFG Code would be significant. As such, mitigation measure MM-BIO-3, which involves a pre-construction survey and avoidance measures (if necessary) prior to and during construction, would be required.

### *Least Bell's Vireo*

The off-site southern willow scrub habitat near San Jacinto Reservoir that occurs adjacent to the 18-inch pipeline to be sliplined has the potential to support the federally and State listed endangered least Bell's vireo. An unpaired individual was incidentally observed during biological surveys within 500 feet of the proposed location for sliplining and excavation activities (refer to Figure 4.3-1c). The impact footprint for the sliplining and excavation activities have been specifically sited within disturbed uplands setback from the off-site southern willow scrub by at least 500 feet. Direct or indirect impacts to least Bell's vireo would be avoided. No impacts or take of least Bell's vireo or suitable habitat for the species are proposed; none are authorized without additional consultation with the USFWS and CDFW. MM-BIO-1 and MM-BIO-2 would further require the installation of temporary construction fencing and biological monitoring where work limits occur adjacent to known sensitive resources. Implementation of these additional avoidance measures would ensure that no inadvertent encroachment or other impacts on sensitive biological resources occur during construction.

### *Burrowing Owl*

Portions of the study area adjacent to the proposed brine management system and proposed 36-inch pipeline support suitable habitat for burrowing owl, which is a USFWS Bird of Conservation Concern (BCC), and CDFW Species of Special Concern (SSC). No burrowing owls or signs of burrowing owl presence were observed during the 2020 protocol-level burrowing owl surveys, which were conducted for potential burrowing owl habitat (i.e., non-native grassland, disturbed habitat, and scrub communities where the shrub cover was sparse) where it occurs in the study area and 500 feet beyond. However, potential burrows were observed near the AWTF and brine management system site and adjacent to the 18-inch pipeline to be sliplined on the southern side of Ramona Expressway between State Street and Eagle Road. In addition, this species has been documented along the San Jacinto River, east of the proposed 36-inch pipeline, and two adults and one breeding pair were observed in 2007 in the area approximately 1,400 feet east of proposed AWTF. Therefore, although no owls were present in 2020, there remains the potential for owls to move into the potential impact area in the future and prior to project construction. Direct and indirect impacts on the species would be considered significant. As such, mitigation measure MM-BIO-4 would be required.

Implementation of the proposed project would not result in permanent loss of potential burrowing owl habitat, as the general conditions would be returned to pre-project conditions (i.e., disturbed habitat) upon completion of the project.

## **Mitigation Measures**

The following mitigation measures would be implemented to avoid direct and/or indirect impacts to sensitive biological resources.

- MM-BIO-1**      **Temporary Construction Fencing.** Prior to construction, to help ensure inadvertent impacts to environmentally sensitive areas outside of the approved impact footprint are avoided, temporary construction fencing, including silt fencing, as appropriate and where determined necessary by the SWPPP, shall be installed at the edges of the approved impact limits for the project. Temporary fencing shall be installed at locations where the project components occur adjacent to resources depicted on Figure 4.3-1, *Vegetation and Sensitive Resources/Land Use Impacts*, and Figure 4.3-2, *Aquatic Resources Avoidance*, in addition to locations at the proposed Alessandro Blending Facility and the proposed 36-inch pipeline trenching along Ramona Expressway, from Vernon Avenue to Old Mountain Avenue. A qualified biologist shall be retained to monitor the installation of the temporary construction fencing wherever it would abut environmentally sensitive areas. Construction activities shall be restricted to areas within the approved impact limits at all times during construction.
- MM-BIO-2**      **Biological Monitoring.** A qualified biologist will conduct a pre-construction environmental training session for construction personnel to inform them of the sensitive biological resources in the local area and the avoidance measures in place to remain in compliance. The biologist will periodically monitor construction activities where temporary construction fencing has been installed in accordance with mitigation measure MM-BIO-1.
- MM-BIO-3**      **Nesting Bird and Raptor Avoidance.** Trimming, grubbing, and clearing of vegetation shall be avoided during the general avian breeding season (January 15 to July 15 for raptors; February 15 to August 31 for other avian species) to the extent feasible and shall not occur within sensitive vegetation communities or suitable habitat for sensitive bird species. If trimming, grubbing, or clearing of vegetation is proposed to occur during the general avian breeding season, a pre-construction survey shall be conducted by a qualified biologist no more than 7 days prior to vegetation clearing to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, trimming, grubbing, and clearing of vegetation shall be allowed to proceed. If active bird nests are confirmed to be present during the pre-construction survey, a buffer zone will be established by the biologist. Construction activities shall avoid any active nests until a qualified biologist has verified that the young have fledged, or the nest has otherwise become inactive.
- MM-BIO-4**      **Burrowing Owl Pre-Construction Take Avoidance Survey.** Prior to construction, the District shall retain a qualified biologist to conduct required pre-construction take avoidance surveys for the burrowing owl in accordance with the protocol described in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). The initial take avoidance survey shall occur no less than 14 days prior to initiating ground-disturbing activities, with a final survey conducted within 24 hours prior to initiating ground-disturbing activities. If, after the initial take avoidance survey, no suitable burrowing owl habitat, including burrows, is present, then the second survey 24 hours prior to ground disturbance would not be required. If no active burrowing owl burrows (nesting sites) are identified within the potential impact area of the project during the take avoidance surveys, then no additional action would be required.

If active burrowing owl burrows are identified within the potential impact area, the project shall avoid disturbing active burrowing owl burrows (nesting sites) and burrowing owl individuals. Buffers shall be established around occupied burrows in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) based on the proposed level of disturbance. For low disturbance projects, initial setback distances for avoidance of active burrows shall be 200 meters (approximately 656 feet) from April 1 to October 15 and 50 meters (164 feet) from October 16 to March 31. Exceptions can be made to the avoidance distance for areas with natural (hills, trees) or artificial (buildings, walls) barriers in place. The final avoidance buffer shall be at the discretion of the biologist. If, after consideration of a reduced buffer, an adequate avoidance buffer cannot be provided between an occupied burrow and required ground-disturbing activities, then passive relocation activities during the non-breeding season (September 1 through January 31) may be authorized in consultation with CDFW, which would include preparation, approval, and implementation of a Burrowing Owl Exclusion Plan in accordance with protocol described in the CDFW Staff Report on Burrowing Owl Mitigation.

### **Significance After Mitigation**

Implementation of mitigation measures MM-BIO-1, MM-BIO-2, MM-BIO-3, and MM-BIO-4 would reduce potentially significant impacts to sensitive biological resources, including smooth tarplant, chaparral sand-verbena, nesting birds and raptors, and special status avian species (i.e., burrowing owl), to a less-than-significant level.

#### **4.3.4.2 Issue 2: Sensitive Habitats**

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

### **Impact Analysis**

The study area is predominantly characterized by field/pastures, disturbed habitat, and developed land and only supports a small portion of sensitive vegetation communities (southern willow scrub) that are not anticipated to be impacted. The proposed project would result in impacts to field/pasture (31.0 acres), disturbed habitat (1.9 acres), and developed land (2.7 acres), which are not considered sensitive natural communities (refer to Figure 4.3-1 and Table 3, *Vegetation Communities/Land Use Impacts*, of Appendix C). Impacts to these vegetation communities are not considered significant and, therefore, do not require mitigation.

### **Mitigation Measures**

No impacts to sensitive habitats would occur; therefore, no mitigation is necessary.

#### **4.3.4.3 Issue 3: Wetlands**

*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?*

## Impact Analysis

Potential waters of the U.S., waters of the State, and CDFW jurisdictional habitat are present within the study area (see Figure 4.3-2). The southern willow scrub habitat is considered potentially jurisdictional to the USACE, RWQCB, and/or CDFW. Several ephemeral concrete and earthen bottom drainages occur within the study area along the sides of paved roadways. Agricultural ditches, erosional features, and areas of open water that function as holding basins for the District are regularly maintained, lack vegetation, lack connectivity to other jurisdictional drainage courses, and would not be considered to be under the jurisdiction of USACE, RWQCB, and/or CDFW. The project has been specifically designed to avoid impacts to federally protected wetlands and other potential jurisdictional aquatic resources by restricting project components to occur entirely within upland areas and by implementing trenchless construction methods for the 18-inch pipeline to be sliplined. The sliplining insertion and pulling pits would be located in upland areas. The sliplining process would not involve a directional drill auger or fluid that could inadvertently release during operation and cause a potential frac-out event, and no such impacts are anticipated. Therefore, no direct impacts on federally protected wetlands or other potential jurisdictional aquatic resources would occur.

Potential indirect impacts on drainage features would be prevented during construction through successful implementation of standard BMPs as part of the project's SWPPP. Implementation of a SWPPP and associated BMPs are a regulatory requirement for the proposed project. Specific BMPs may include but would not necessarily be limited to maintaining the project work areas free of trash and debris; employing appropriate standard spill prevention practices and clean-up materials; installing and maintaining sediment and erosion control measures; maintaining effective control of fugitive dust; and properly storing, handling, and disposing of toxins and pollutants, including waste materials.

If temporary construction fencing and other BMPs are not properly implemented during construction, there would be a potential for materials, equipment, and personnel to inadvertently encroach into potential jurisdictional aquatic resources, locations of which are shown on Figure 4.3-2. Therefore, impacts are considered potentially significant.

## Mitigation Measures

In addition to required BMPs as part of the project's SWPPP, mitigation measures MM-BIO-1 and MM-BIO-2 would be implemented to avoid impacts to jurisdictional resources.

## Significance After Mitigation

With implementation of the mitigation measures MM-BIO-1 and MM-BIO-2, potential impacts to jurisdictional resources would be less than significant.

### 4.3.4.4 Issue 4: Wildlife Movement

*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?*

## Impact Analysis

The project is not located within any linkages recognized by the South Coast Missing Linkages report (South Coast Wildlands 2008) or MSHCP. The study area does not by itself function as nor does it contribute to any local or regional wildlife corridors or linkages. It is also not contained within or connected to any local or regional core resource areas. The majority of the study area and project features occur within developed roadways/public right-of-way, active agricultural fields, and previously established pipeline easements. A strip of southern willow scrub occurs east of Sanderson Avenue and north of the San Jacinto Reservoir. This narrow strip of habitat is isolated and does not connect to the San Jacinto River corridor or other areas of intact undeveloped/undisturbed land. As such, the southern willow scrub would not function as a wildlife corridor or core wildlife area, although it may function as a stopover site for migrating bird species. The San Jacinto River corridor is located approximately 2.5 miles east of the strip of willow habitat and over 700 feet east of the proposed 36-inch pipeline. The San Jacinto River corridor functions to facilitate regional wildlife movement but is not connected to the project site due to a flood levee that occurs to the east of the Ramona Expressway.

The project does include several aboveground components in the form of small treatment facilities and a brine management system, but these features would not act as major impediments to wildlife movement, including access to nursery sites, foraging habitat, breeding habitat, water sources, or other areas necessary for their life history. Higher quality habitat that functions as a wildlife movement corridor occurs east of the project site along the San Jacinto River. The project avoids and is set back from the San Jacinto River corridor, with the closest project components being sited within the Ramona Expressway right-of-way and on existing developed land, all of which are separated from the River corridor by existing barriers (e.g., fences, levee, vertical walls). As the project components have been specifically sited within existing disturbed and developed areas, the potential impact on wildlife movement and nursery sites would be less than significant and no additional mitigation is required.

## Mitigation Measures

Impacts associated with wildlife movement would be less than significant; therefore, no mitigation is necessary.

### 4.3.4.5 Issue 5: Local Policies

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

## Impact Analysis

No local policies or ordinances pertaining to biological resources are applicable to the project. The project is an essential public utility that would primarily occur within the existing disturbed areas and public road rights-of-way. No impact or conflict would occur.

## Mitigation Measures

No impacts related to local policies or ordinances protecting biological resources would occur; therefore, no mitigation is necessary.

#### 4.3.4.6 Issue 6: Conservation Planning

*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?*

##### Impact Analysis

The project is located within the boundaries of the adopted Western Riverside MSHCP; however, the District is not a signatory to the MSHCP, and as such is not subject to the requirements of the MSHCP. The project is not located within the Stephen's kangaroo rat HCP or any core areas for the HCP, and focused surveys are not required under the HCP for activities occurring on lands outside of core reserves. No other adopted conservation plans are applicable to the project. Therefore, no impact on an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan would occur.

A brief consistency analysis was conducted to demonstrate how the project would not conflict with the conservation goals and objectives of the MSHCP. The site occurs within portions of Criteria Cells 2775, 2878, 2893, 3098, 3024, and 3312, but is situated primarily within disturbed lands, field/pastures, and existing developed lands. The project was specifically designed to place the proposed components within disturbed and developed areas. Conservation in the local area is generally targeted further to the northeast and east within the alluvial system of the San Jacinto River and contiguous uplands connecting the river with the San Jacinto Mountains. Perhaps the most important conservation target for the local area is that for the San Bernardino kangaroo rat, which critical habitat (Unit 3) has been designated around the reach of the San Jacinto River that occurs east of the project. A thorough assessment was completed to confirm the presence or absence of suitable habitat as well as any PCEs identified for its critical habitat. Consistent with the MSHCP survey requirements, surveys for narrow endemic and criteria area plant species were completed as part of the rare plant survey effort for the project. Additional, protocol-level surveys for burrowing owl were completed during the peak breeding season for the species. Last, an assessment and delineation of riparian/riverine areas and vernal pools was completed consistent with MSHCP requirements.

The following was determined upon completion of the biological surveys completed for the project: no permanent loss of habitat targeted under the MSHCP would result from the project; no suitable habitat or PCEs for San Bernardino kangaroo rat occurs within the project impact area; no burrowing owl occur within the project impact area; and no riparian/riverine areas or vernal pools occur within the project impact area. Where these resources occur or have potential to occur adjacent to the project impact areas, the project would implement site protection and other BMPs in accordance with the required SWPPP and mitigation measure MM-BIO-1. A qualified biologist would be required to monitor installation of site protection and periodically monitor activities in accordance with mitigation measure MM-BIO-2. These measures would help to ensure that off-site sensitive resources are protected from construction activities and that the activities are monitored by a qualified biologist. In addition, the project would implement breeding season avoidance and pre-construction take avoidance surveys for nesting birds and raptors, including burrowing owl, under mitigation measures MM-BIO-3 and MM-BIO-4 to ensure that no impacts occur to individuals consistent with MSHCP requirements.

The biological surveys did confirm the presence of two rare plants (smooth tarplant and chaparral sand-verbena), one of which (smooth tarplant) requires additional avoidance procedures under the MSHCP.

The MSHCP states that 90 percent of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species are met. The smooth tarplant found within and immediately adjacent to the project impact area include low numbers of scattered individuals, primarily situated within roadway right-of-way areas. The project would avoid the large majority of the smooth tarplant individuals found during the assessment and would avoid more than 90 percent of those portions of the right-of-way areas and adjoining properties that could provide for long-term conservation value toward the species. Therefore, the project would be consistent with MHSCP requirements for smooth tarplant.

No other adopted HCP, Resource Management Plan, Special Area Management Plan, Watershed Plan, or other regional planning efforts are applicable to the project.

### **Mitigation Measures**

The District is not a signatory to the MSHCP; therefore, no impact would occur and no mitigation is necessary.

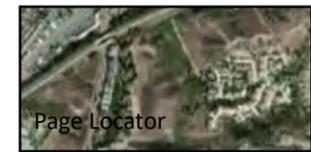
 Study Area  
 Temporary Construction Fence  
**Impact Areas**  
 Proposed Advanced Water Treatment Facility  
 Proposed Brine Management System  
**Vegetation and Land Cover Type**  
 Developed  
 Disturbed Habitat  
 Field/Pasture  
 \*Count of individuals is labeled if greater than 1.



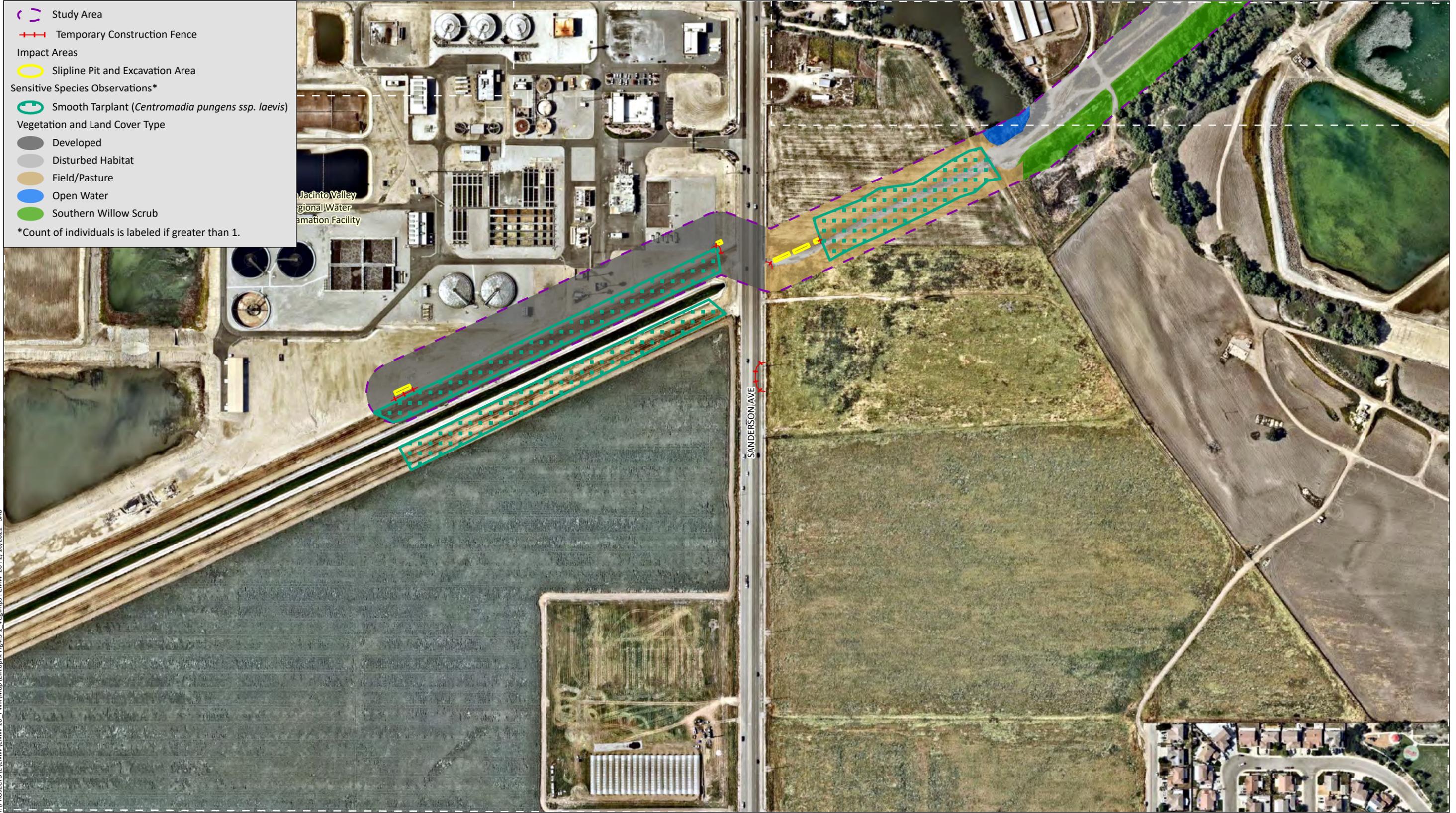
I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\Map\Fig.3-1\_VegImps : EMW-20 : 2/10/2021 - SAB

San Jacinto Valley  
Regional Water  
Reclamation Facility

Source: Aerial (NearMap, 2020)



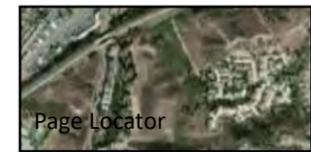
-  Study Area
  -  Temporary Construction Fence
  - Impact Areas
  -  Slipline Pit and Excavation Area
  - Sensitive Species Observations\*
  -  Smooth Tarplant (*Centromadia pungens ssp. laevis*)
  - Vegetation and Land Cover Type
  -  Developed
  -  Disturbed Habitat
  -  Field/Pasture
  -  Open Water
  -  Southern Willow Scrub
- \*Count of individuals is labeled if greater than 1.



I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER.aprx Fig. 3-1\_VegImps : EMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

0 300 Feet

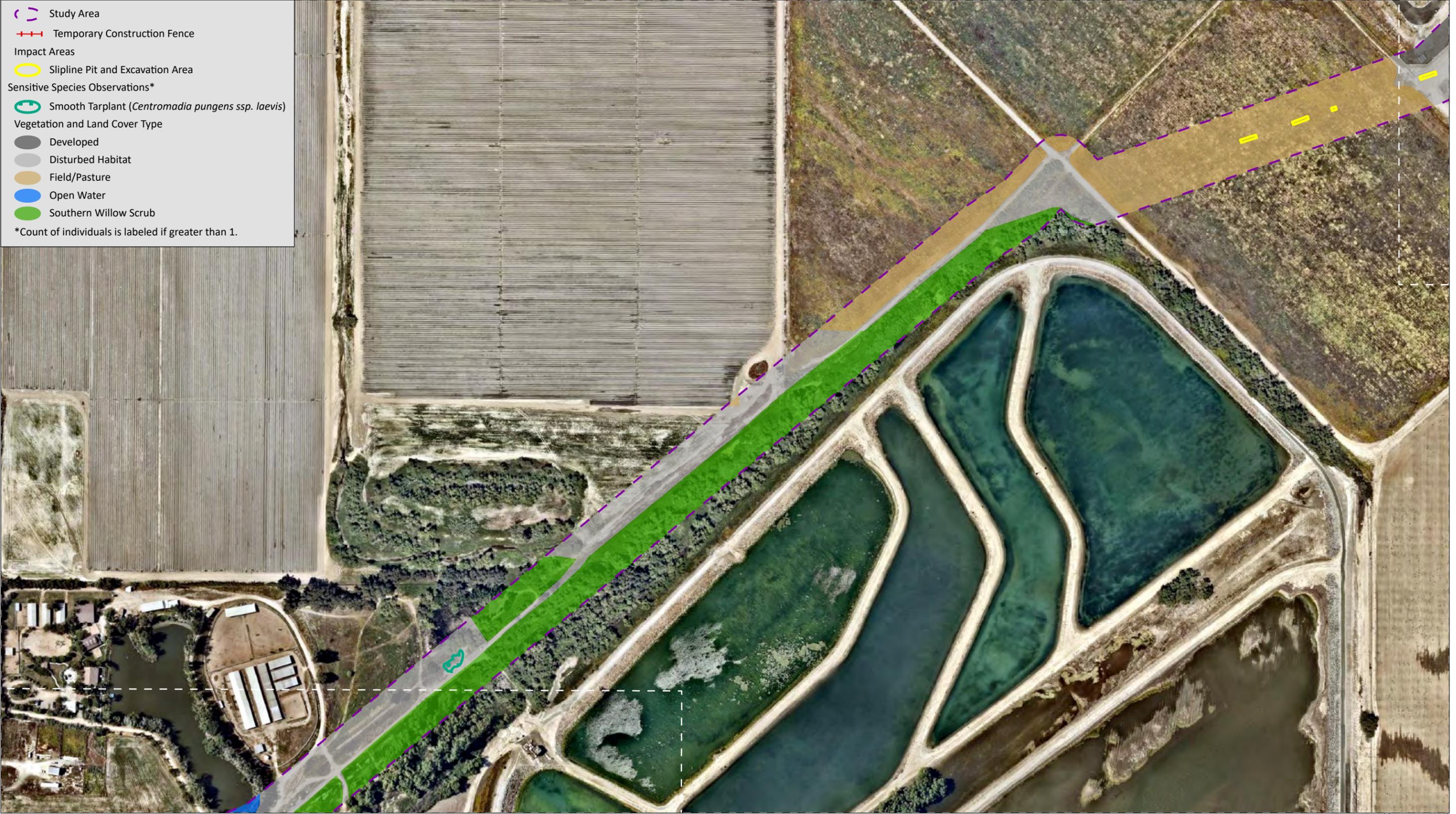


### Vegetation and Sensitive Resources/Land Use Impacts

Figure 4.3-1b

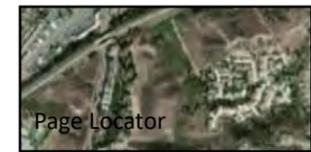
-  Study Area
-  Temporary Construction Fence
- Impact Areas
-  Slipline Pit and Excavation Area
- Sensitive Species Observations\*
-  Smooth Tarplant (*Centromadia pungens ssp. laevis*)
- Vegetation and Land Cover Type
-  Developed
-  Disturbed Habitat
-  Field/Pasture
-  Open Water
-  Southern Willow Scrub

\*Count of individuals is labeled if greater than 1.



I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\Map\Fig.3-1\_VegImps : EMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)



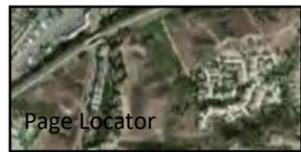
-  Study Area
-  Temporary Construction Fence
- Impact Areas
-  Slipline Pit and Excavation Area
- Vegetation and Land Cover Type
-  Developed
-  Disturbed Habitat
-  Field/Pasture



I:\PROJECTS\EMW\EMW-20\_PWR\Map\LEIR\aprx\Fig.3-1\_VegImps : EMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

0 300 Feet



### Vegetation and Sensitive Resources/Land Use Impacts

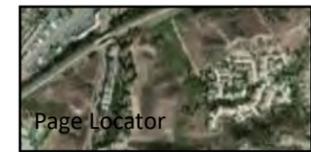
Figure 4.3-1d



I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\Map\Fig. 3-1\_VegImps : EMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

0 300 Feet



**HELIX**  
Environmental Planning

# Vegetation and Sensitive Resources/Land Use Impacts

Figure 4.3-1e

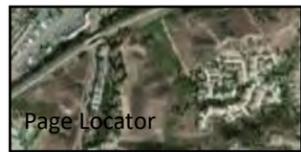
-  Study Area
-  Temporary Construction Fence
- Impact Areas
-  Slipline Pit and Excavation Area
-  Proposed 36" Pipeline
-  Proposed Alessandro Blending Facility
- Vegetation and Land Cover Type
-  Developed
-  Disturbed Habitat
-  Field/Pasture
-  Open Water

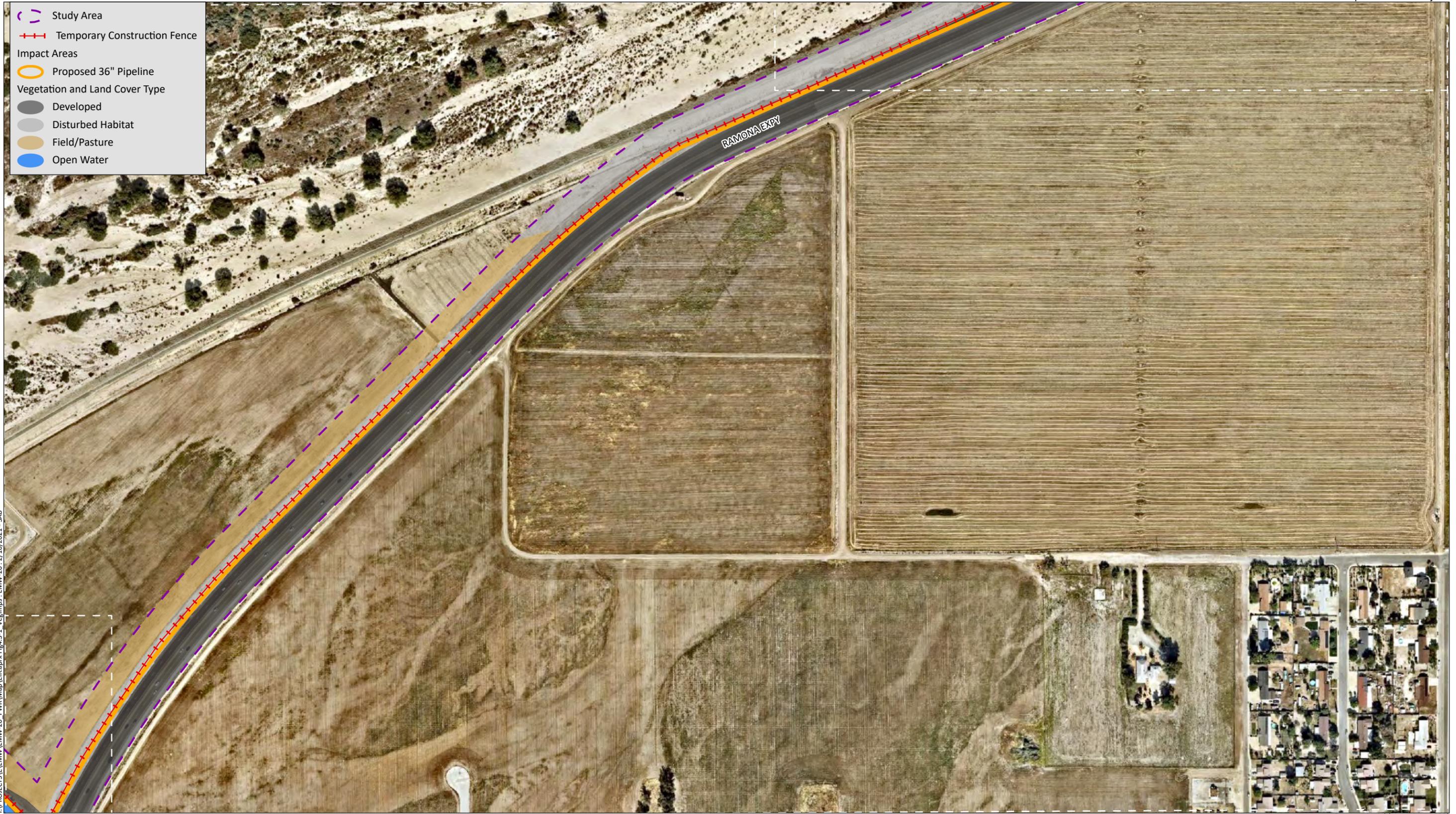


I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\aprx\Fig.3-1\_VegImps : EMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

0 300 Feet

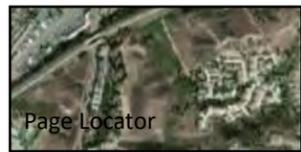




I:\PROJECTS\EMW\EMW-20\_PWR\Map\EIR\aprx\Fig. 3-1\_VegImps : EMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

0 300 Feet

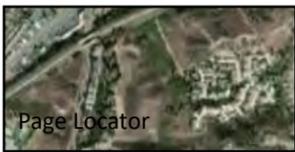
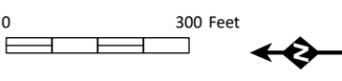


 Study Area  
 Temporary Construction Fence  
**Impact Areas**  
 Proposed 36" Pipeline  
**Vegetation and Land Cover Type**  
 Developed  
 Disturbed Habitat  
 Riversidian Sage Scrub  
 \*Count of individuals is labeled if greater than 1.



I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\aprx\Fig. 3-1\_VegImps : EMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

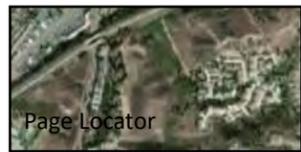
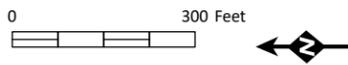


--- Study Area  
--- Temporary Construction Fence  
**Impact Areas**  
  Proposed 36" Pipeline  
**Vegetation and Land Cover Type**  
  Developed  
  Disturbed Habitat  
  Field/Pasture  
 \*Count of individuals is labeled if greater than 1.



I:\PROJECTS\EMW\EMW-20\_PWR\Map\LEIR\Map\Fig. 3-1\_VegImps : EMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

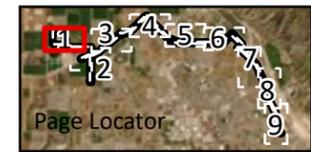


-  Study Area
-  Temporary Construction Fence
- Impact Areas
-  Proposed Advanced Water Treatment Facility
-  Proposed Brine Management System
- Potential RWQCB and CDFW Jurisdiction
-  Agricultural Ditch (Ephemeral)



I:\PROJECTS\EMM\EMW-20\_PWR\Map\ER\aprx Fig.3-2\_ID\_Imps: EMW-20 : 2/10/2021 - SAB

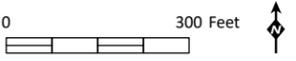
Source: Aerial (NearMap, 2020)



-  Study Area
-  Temporary Construction Fence
- Impact Areas**
-  Slipline Pit and Excavation Area
-  1' Width of Potential Jurisdictional Feature - Existing Culvert
- Potential USACE and RWQCB Jurisdiction**
-  Wetland Waters of the U.S./State
- Potential RWQCB and CDFW Jurisdiction**
-  Concrete Channel (Ephemeral)
-  Earthen Channel (Ephemeral)
- Potential CDFW Jurisdiction**
-  Lake Fringe/Wetland/Riparian
-  Lake/Open Water

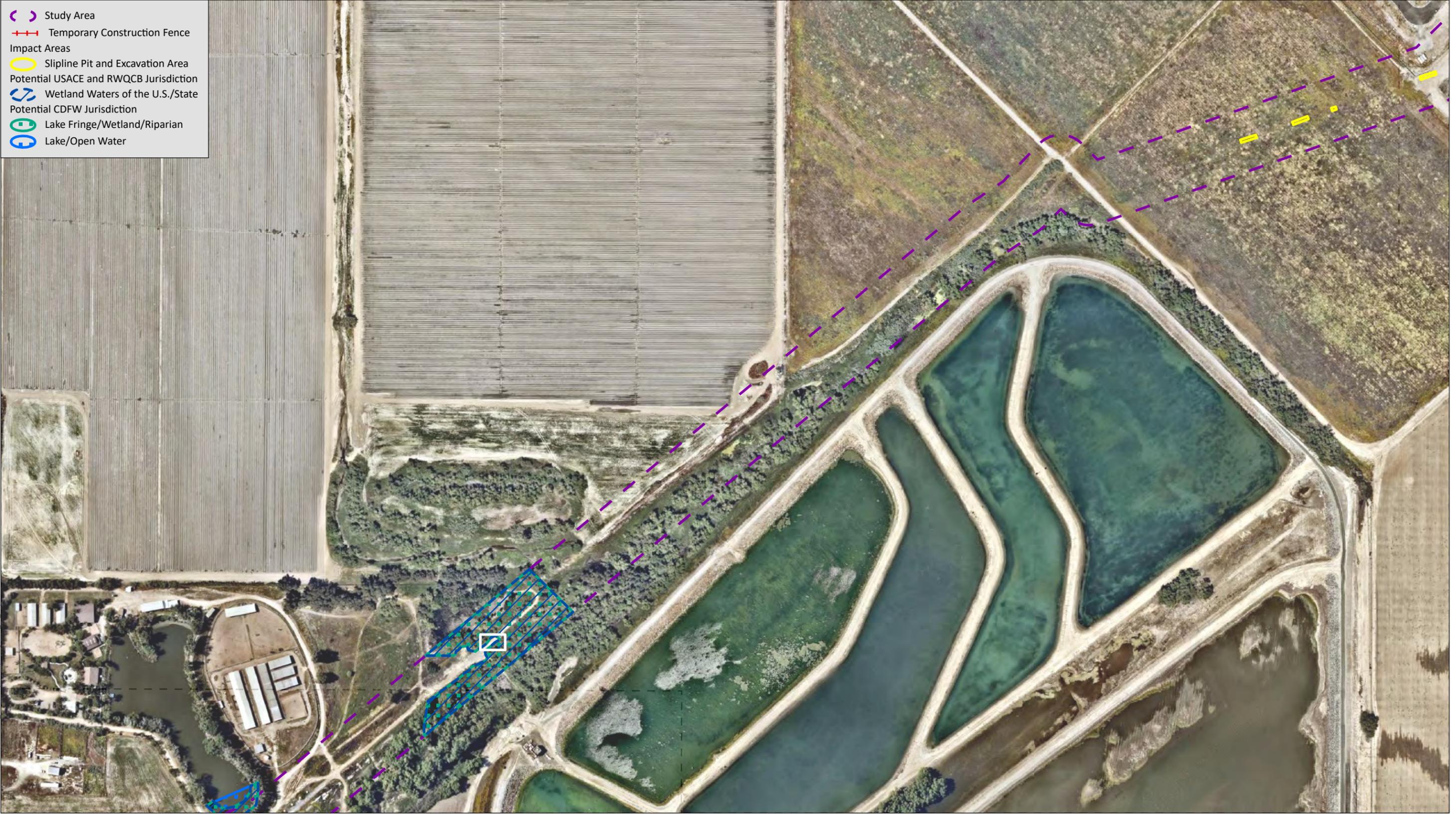


I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER.aprx Fig.3-2\_ID Imps: EMW-20 : 2/10/2021 - SAB

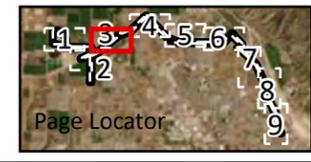


Source: Aerial (NearMap, 2020)

-  Study Area
-  Temporary Construction Fence
- Impact Areas**
-  Slipline Pit and Excavation Area
-  Potential USACE and RWQCB Jurisdiction
-  Wetland Waters of the U.S./State
-  Potential CDFW Jurisdiction
-  Lake Fringe/Wetland/Riparian
-  Lake/Open Water

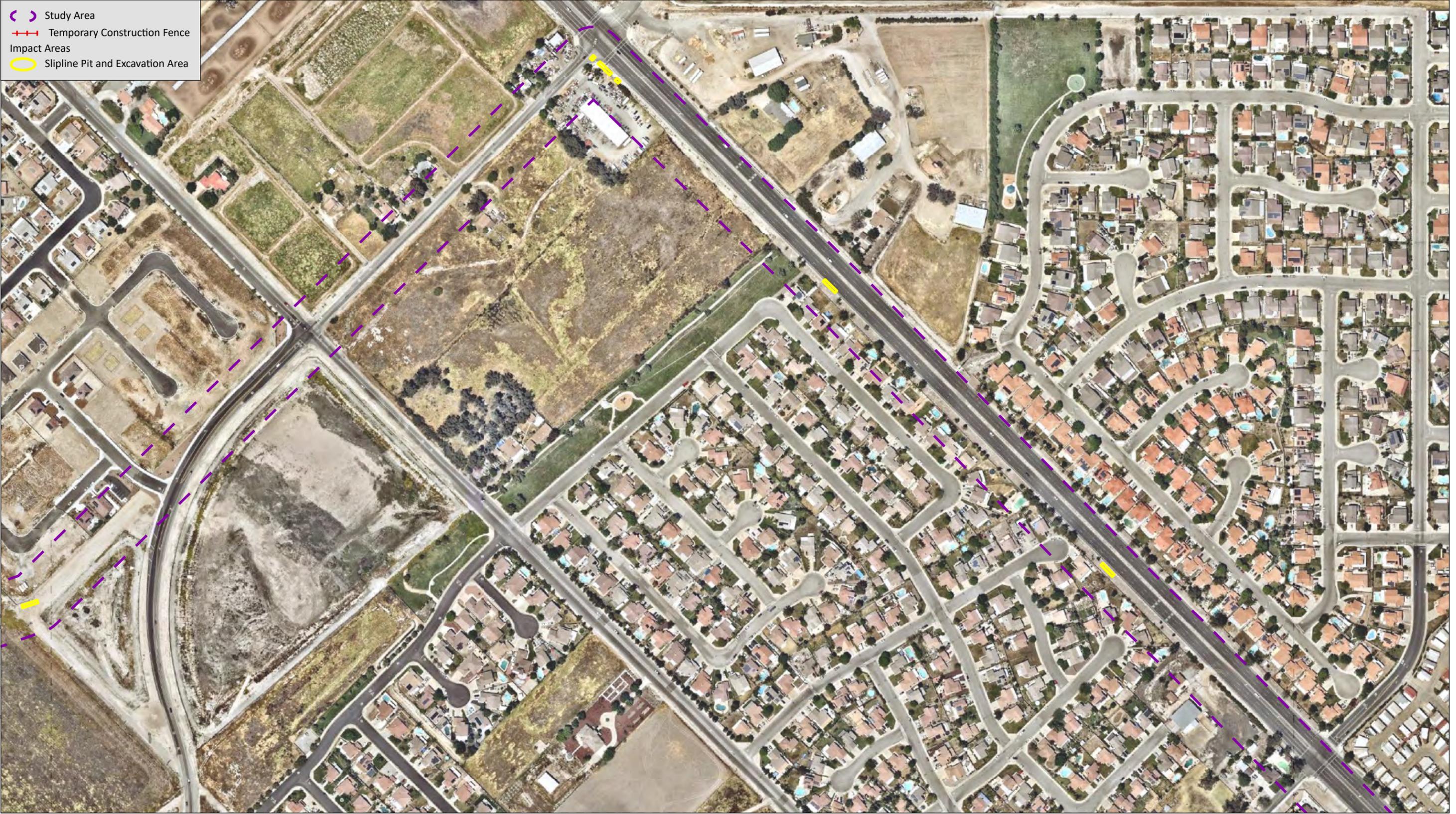


I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\aprx Fig.3-2\_ID Imps: EMW-20 : 2/10/2021 - SAB



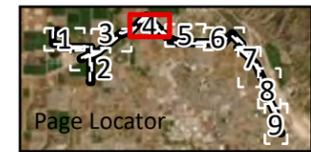
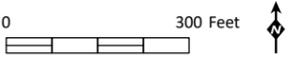
Source: Aerial (NearMap, 2020)

-  Study Area
-  Temporary Construction Fence
-  Impact Areas
-  Slipline Pit and Excavation Area



I:\PROJECTS\EMW\EMW-20\_PWR\Map\LEIR\aprx Fig.3-2\_ID\_Imgs: EMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)



-  Study Area
-  Temporary Construction Fence
-  Impact Areas
-  Slipline Pit and Excavation Area



I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\aprx\Fig.3-2\_ID\_Imps\_EMW-20\_2/10/2021\_SAB

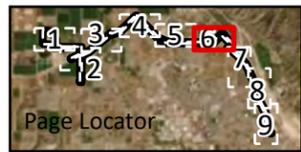
Source: Aerial (NearMap, 2020)



-  Study Area
-  Temporary Construction Fence
- Impact Areas
-  Slipline Pit and Excavation Area
-  Proposed 36" Pipeline
-  Proposed Alessandro Blending Facility
- Potential RWQCB and CDFW Jurisdiction
-  Streambed (Ephemeral)



I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\aprx\Fig.3-2\_ID\_Imps:EMW-20:2/10/2021-SAB



Source: Aerial (NearMap, 2020)

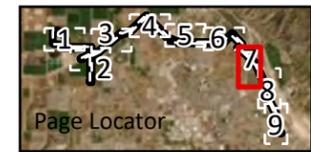
-  Study Area
-  Temporary Construction Fence
- Impact Areas**
-  Proposed 36" Pipeline
-  Potential RWQCB and CDFW Jurisdiction
-  Streambed (Ephemeral)



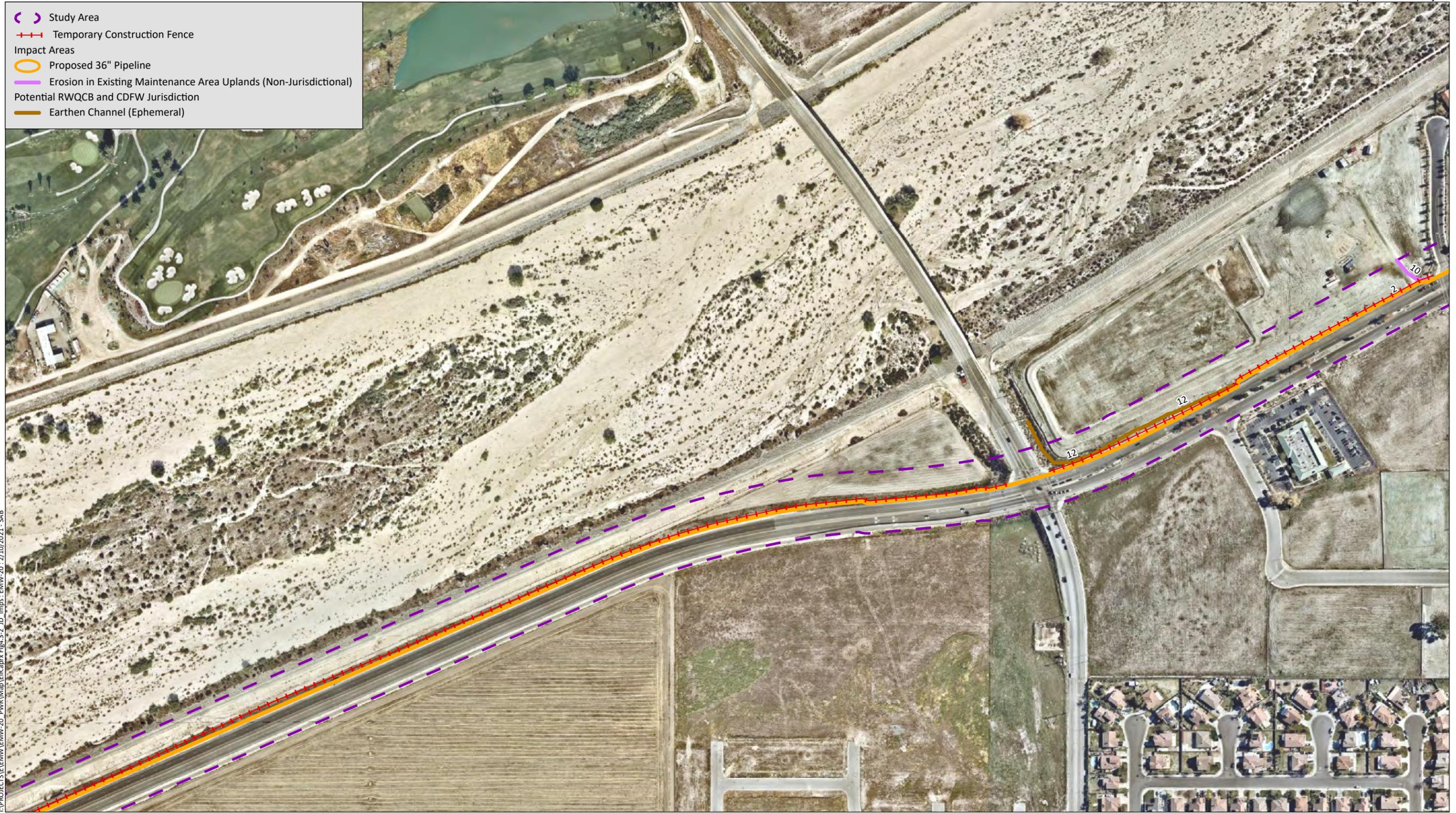
I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\aprx\Fig.3-2\_ID\_Imps:EMW-20:2/10/2021-SAB

Source: Aerial (NearMap, 2020)

0 300 Feet

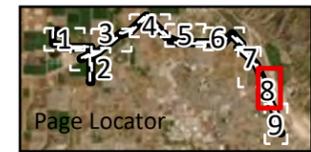


-  Study Area
-  Temporary Construction Fence
- Impact Areas
-  Proposed 36" Pipeline
-  Erosion in Existing Maintenance Area Uplands (Non-Jurisdictional)
- Potential RWQCB and CDFW Jurisdiction
-  Earthen Channel (Ephemeral)



I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER\aprx Fig.3-2\_ID\_Imps: EMW-20 : 2/10/2021 - SAB

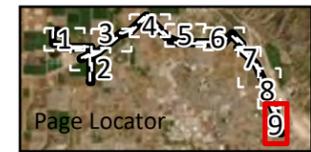
Source: Aerial (NearMap, 2020)



-  Study Area
-  Temporary Construction Fence
- Impact Areas
-  Proposed 36" Pipeline
-  Erosion in Existing Maintenance Area Uplands (Non-Jurisdictional)



I:\PROJECTS\EMW\EMW-20\_PWR\Map\EIR\aprx Fig.4.3-2\_ID\_Imps: EMW-20 : 2/10/2021 - SAB



Source: Aerial (NearMap, 2020)

## 4.4 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

This section addresses the potential impacts of the proposed project to cultural resources and tribal cultural resources. The following discussion includes a description of existing conditions as related to cultural resources and tribal cultural resources, a summary of applicable regulations, and an evaluation of the proposed project's potential environmental effects associated with an adverse change in historical, archaeological, and tribal cultural resources, and the disturbance of human remains. This section incorporates information from the *Cultural Resources Survey* prepared for the proposed project (HELIX 2020b; Appendix D).

### 4.4.1 Existing Conditions

#### 4.4.1.1 Cultural Setting

##### Prehistoric Setting

The approximately 10,000 years of documented prehistory of the project region can be divided into three periods: Early Prehistoric Period (San Dieguito Tradition), Archaic Period (Milling Stone Horizon and Encinitas Tradition), and Late Prehistoric Period. The Early Prehistoric Period represents the time of the entrance of the first known human inhabitants into California. In some areas of California, it is referred to as the Paleo-Indian period, and it is associated with the Big-Game-Hunting activities of the peoples of the last Ice Age, occurring during the Terminal Pleistocene (pre-10,000 years ago) and the Early Holocene (beginning circa 10,000 years ago). The earliest sites in the San Diego subregion, documented to be over 9,000 years old, belong to the San Dieguito Tradition. The San Dieguito Tradition has been documented mostly in the coastal and near coastal areas in San Diego County, as well as in the southeastern California deserts. The content of the earliest component of the C.W. Harris Site (CA-SDI-149/316/4935B), located along the San Dieguito River, approximately 46 miles to the south of the project, formed the basis upon which the "San Dieguito complex" was identified and which was later reclassified as the San Dieguito Tradition.

During the subsequent Archaic Period, generally classified as occurring between approximately 9,500 years ago and 1,500 years ago, artifact assemblages of the Milling Stone Horizon/Encinitas Tradition occur at a range of coastal and adjacent inland sites, and, in contrast to those of the previous Early Prehistoric Period, are relatively common in the study area region. These assemblages appear to indicate that a relatively stable, sedentary, predominantly gathering complex, possibly associated with one people, was present in the coastal and immediately inland areas of southern California for more than 7,000 years.

The beginning of the Late Prehistoric Period, circa 1,500 years ago, is seen as a time marked by a number of rather abrupt changes, at least partially caused by significant variations in climatic conditions, resulting in alteration of previous subsistence practices, the adoption of significant new technologies, and shift in settlement. Subsistence and technological changes that occurred include a shift from hunting using atlatl and dart to the bow and arrow; a de-emphasizing of shellfish gathering along some areas of the coast (possibly due to silting-in of the coastal lagoons); and an increase in the storage of crops, such as acorns and pinyon nuts. The shift in settlement in the early part of the period, from 1,500 to 750 years ago, is evidenced locally by a rather sudden decline in population, likely due to warm and arid conditions associated with the Medieval Warm Period, documented to have occurred between approximately 1,100 and 600 years ago. During the latter part of the Late Prehistoric Period, beginning

around 750 years ago, the climate was cooler and moister, resulting in reoccupation of the area and more sedentary land use.

The Late Prehistoric Period has been commonly described archaeologically in northern San Diego County and the western portion of Riverside County as the San Luis Rey (SLR) complex. As originally defined, the SLR complex is associated with the ethnographic Luiseño, who were present in the area at the time of first contact with Europeans.

### **Ethnographic Setting**

While ethnographers do not entirely agree, the project location is generally considered to lie within the traditional territory of the Luiseño people. The name Luiseño derives from Mission San Luis Rey de Francia and has been used to refer to the Native people associated with the mission. Some ethnographers place the area of the project within or adjacent to a “transitional” area between the Luiseño and the linguistically related Cahuilla to the east, but others place it firmly within the traditional territory of the Luiseño people. The Luiseño and Cahuilla are both Takic-speaking people of the Uto-Aztecan linguistic stock. The Luiseño followed a seasonal gathering cycle, with bands occupying a series of campsites within their territory. The Luiseño lived in semi-sedentary villages usually located along major drainages, in valley bottoms, and also on the coastal strand, with each family controlling gathering areas.

### **Historical Setting**

#### **Spanish Period**

The beginning of the historic period in the San Diego area, generally given as 1769, was marked by a Spanish expedition headed by Gaspar de Portolá and Junípero Serra that established the Royal Presidio of San Diego. Portolá then traveled north from San Diego seeking suitable locations to establish military presidios and religious missions to extend the Spanish Empire into Alta California. The first documented Spanish contact in what is now Riverside County was by Spanish military captain Juan Bautista de Anza who led expeditions in 1774 and 1775 from Sonora to Monterey, via the San Jacinto Mountains and San Jacinto Valley.

Mission San Juan Capistrano and Mission San Luis Rey de Francia, established in 1776 and 1798, respectively, claimed a large part of southwestern Riverside County. Due to the inland geographical location of the Cahuilla territory, the Spanish missions did not have as direct an effect on them as it did on the Luiseño who lived along the coast. On the coast, the Luiseño were moved into the Mission environment, where living conditions and diseases promoted the decline of the Luiseño population. However, throughout the Spanish Period, the influence of the Spanish progressively spread further from the coast and into the inland areas of southern California as Missions San Luis Rey and San Gabriel extended their influence into the surrounding regions and used the lands for grazing cattle and other animals. In the 1810s, ranchos and mission outposts called *asistencias* were established, increasing the amount of Spanish contact in the region. While there were efforts to develop *asistencias* located in San Bernardino and Pala into full missions in order to establish an inland mission system, Mexico won independence from Spain in 1821, bringing an end to the Spanish Period in California.

## **Mexican Period**

Although Mexico gained its independence from Spain in 1821, Spanish patterns of culture and influence remained for a time. The missions continued to operate as they had in the past, and laws governing the distribution of land were also retained in the 1820s. Following secularization of the missions in 1834, large ranchos were granted to prominent and well-connected individuals, ushering in the Rancho Era, with the society making a transition from one dominated by the church and the military to a more civilian population, with people living on ranchos or in pueblos. With the numerous new ranchos in private hands, cattle ranching expanded and prevailed over agricultural activities.

In 1835, Jose Antonio Estudillo of San Diego submitted a petition for the San Jacinto Rancho, and in 1842 he was granted close to the maximum size allowed of 11 square leagues. In 1845, Estudillo's son-in-law, Miguel de Pedrorena filed a petition for half of the San Jacinto Viejo Rancho and a small additional portion of land two miles to the northeast in the hills east of Lamb Canyon. This portion, the northern half of the San Jacinto Viejo Rancho, became known as the San Jacinto Nuevo y Potrero Rancho.

Following the secularization of the missions in 1834, the political instability led to Indian revolts and uprisings against the Mexican rancheros who, not uncommonly, treated Indians as serfs. Many Indians left the missions and ranchos and sought refuge among inland inhabitants. Some Luiseño people even acquired land grants and eventually entered into mainstream Mexican culture. During the Mexican period, the Cahuilla were likewise increasingly influenced by Mexican culture. Some of the Cahuilla acquired Spanish names, learned Spanish, and adopted forms of Spanish subsistence, such as raising cattle, agriculture, and wage labor. Many Cahuilla worked seasonally for the Mexicans, traveling to and from their villages.

## **American Period**

American governance began in 1848, when Mexico signed the Treaty of Guadalupe Hidalgo, ceding California to the United States at the conclusion of the Mexican–American War. California soon experienced substantial population growth as a result of the California gold rush, the end of the Civil War, and the passage of the Homestead Act. While the American system required that the newly acquired land be surveyed prior to settlement, the Treaty of Guadalupe Hidalgo bound the United States to honor the land claims of Mexican citizens who were granted ownership of ranchos by the Mexican government. The Land Act of 1851 established a board of commissioners to review land grant claims, and land patents for the land grants were issued from 1876 to 1893. The San Jacinto Nuevo y Potrero Rancho land grant was patented in 1883 to Miguel Pedrorena, Maria Antonia Estudillo Pedrorena, Isabel Pedrorena, and Helena Pedrorena.

Southern California was developed by Americans and other immigrants who migrated to the western frontier in pursuit of gold and other mining, agriculture, trade, and land speculation. During the latter part of the nineteenth century “boom and bust” cycles brought thousands of people into southern California. While many eventually left, some remained to later form the foundations of small communities based on farming, orchards, dairies, and livestock ranching. The population growth of southern California during these early years of the American Period brought a need for mail and freight travel, and numerous mail routes were established in the region, leading to opening of San Jacinto's first post office in 1870.

During the early days of the American Period, the San Jacinto Valley had centered on the Estudillos' stock farm on the San Jacinto Rancho. By the 1860s, however, economic considerations forced the

Estudillo family to begin selling portions of their rancho. Americans began immigrating in great numbers, by 1870 almost 100 people were living in the San Jacinto region, and orchards and farms rapidly replaced cattle ranching.

By 1880, Henry Hewitt had bought approximately 8,000 acres of land in the San Jacinto Valley and was running a store and a hotel. In the early 1880s, the San Jacinto Land Association bought more than 10,000 acres of land and developed the town of New San Jacinto, which grew rapidly and by 1886 had 250 residents, 150 houses, two hotels, a brickyard, lumberyards, a blacksmith, and a newspaper. By 1887 the Estudillo Land and Water Company had been incorporated in order to subdivide and market the last remaining 1,100 acres of the Estudillo land grant. The Estudillo Land and Water Company offered the San Jacinto Valley Railway, purchased by the California Central Railway that same year, 27 acres of land for a railroad right-of-way and depot. As such, the railroad to the San Jacinto Valley ended on the Estudillo tract approximately 0.5 mile west of San Jacinto.

With the completion of the California Southern Railway, settlers flocked to the Perris and San Jacinto valleys in even greater numbers. By the early 1890s, San Jacinto had a population of 1,500, three hotels, 24 stores, a bank, and was a thriving civic center for the region. The project area and surrounding region continued to develop along with the railroad; however, as with much of southern California, the San Jacinto and Perris valleys were plagued by water scarcity in the late nineteenth and early twentieth centuries.

In 1922, California reached an agreement with the other states in the Colorado River watershed basin allowing the allotment of water needed to construct the Colorado River Aqueduct, which runs through the San Jacinto Valley directly north of, and also through, the project area. The construction of the Colorado River Aqueduct by the Los Angeles Metropolitan Water District occurred along various points simultaneously between 1934 and 1941, helping to fuel a torpid economy in the midst of the Great Depression. At its completion, the Colorado River Aqueduct was a huge American engineering achievement stretching for 242 miles.

Due to construction of the Colorado River Aqueduct and other efforts to bring water to the region by the District in the 1950s, agriculture in the area shifted from dry farming crops to a more diverse collection of crops; irrigation allowed alfalfa, the King potato, and sugar beets to be grown in the Perris valley. The State Water Project was approved by the California Legislature in 1951, with construction beginning in 1957; the terminus of this approximately 600-mile long water delivery and storage system is Lake Perris, which was constructed in the latter part of the 1960s and early 1970s. In addition to being an important water resource, Lake Perris afforded the area with recreational activities.

The portion of the Colorado River Aqueduct within and in proximity to the project area is the Casa Loma Siphon and Canal.

#### **4.4.1.2 Identification of Cultural Resources**

##### **Records Search**

A records search of the California Historical Resources Information System (CHRIS) was conducted at the Eastern Information Center (EIC) on February 4, 2020. The records search covered the project site and a one-mile radius around it and included a review of archaeological and historical resource data, locations and citations for previous cultural resource studies, and a review of the State Office of Historic Preservation's (OHP's) historic properties directory. The records search identified 87 previous cultural

resource studies within the one-mile-radius records search limits, 19 of which are immediately adjacent to or include portion of the project area. Of these 19 studies, 15 were indicated as archaeological/cultural resources surveys or assessment reports; one as a historic properties survey report; one as a cultural resource “study”; one as a cultural resources monitoring report; and one was vague as to the nature of the study. One survey, conducted in 2009, covered a large section of the current project area, extending from Sanderson Avenue on the west to the Alessandro Ponds on the east. The only resource noted during that survey was the San Diego Aqueduct (P-33-015734), which was noted as being deeply buried.

The records search identified 90 previously recorded cultural resources within a one-mile radius of the project site. Eight of these resources are situated within or in immediate proximity to the project: CA-RIV-3970, CA-RIV-3971, and CA-RIV-12672 are historic refuse scatters/deposits; P-33-007297 is the remnants (concrete slabs and driveway) of the Raymar Dairy; CA-RIV-6726H is the Colorado River Aqueduct, and CA-RIV-8195 is the San Diego Aqueduct and San Diego Canal, constructed in the mid-twentieth century, but these two resources have overlapping segments; P-33-015735 is a historic residence and associated outbuildings constructed in the Craftsman style, circa 1920s (now demolished); and CA-RIV-11852 consists of two concrete slabs and a refuse deposit post-dating 1945.

### **Other Archival Research**

Various additional archival sources were consulted, including historic topographic maps and aerial imagery. In general, the early topographic maps and aerial photographs examined indicate that, prior to 45 years ago, and dating back into the nineteenth century, the area in which the project lies contained mostly rural farm and/or dairy-related activity, with structures associated with scattered farmsteads and/or dairy operations predominating in the area. Communities such as San Jacinto and Hemet were rural communities associated with these agricultural and dairy activities. Other than these rural activities, the other features noted on the historic aerials were the construction, beginning in the 1930s, of the Colorado and San Diego aqueducts and associated facilities in the area. Not surprisingly, six of the eight cultural resources recorded within or immediate proximity to the project alignment are related to these rural farming and dairy activities with the other two related to the construction of the aqueducts and associated facilities in the area.

### **Native American Contact Program**

The NAHC was contacted on January 28, 2020 for a Sacred Lands File search and list of Native American contacts for the project area. The NAHC indicated in a response dated February 11, 2020 that the Sacred Lands File search was positive and recommended contacting the tribal contacts provided in order to obtain additional cultural resources information. Letters were sent on February 18, 2020 to Native American representatives and interested parties identified by the NAHC. Three responses have been received to date, from the Morongo Band of Mission Indians, Agua Caliente Band of Cahuilla Indians (ACBCI), and the Soboba Band of Luiseño Indians (Soboba). The Morongo Band of Mission Indians responded that it has no additional comments and will likely defer to Soboba during formal consultation. ACBCI indicated that the project is not within the ACBCI’s reservation but is located with its Traditional Use Area and requested copies of cultural resource documentation associated with the project be provided to them. Soboba indicated that the project is outside their existing reservation but is within their Tribal Traditional Use Areas and “is in proximity to known sites, is a shared use area that was used in ongoing trade between tribes and is considered to be culturally sensitive by the people of Soboba.” Soboba requests ongoing consultation and transfer of information as related to the project,

that Native American Monitor(s) from Soboba be present during the project's ground-disturbing activities, and that proper procedures be taken and the tribe be honored.

### **Pedestrian Survey**

An intensive pedestrian survey of the proposed pipeline alignments and facility locations was undertaken on February 20, 2020 by two HELIX archaeologists and a Soboba tribal cultural monitor. No newly identified cultural resources were observed during the current survey, but five of the eight cultural resources previously recorded within or immediately adjacent to project were reidentified. These include the Colorado River Aqueduct and San Diego Aqueduct (CA-RIV-6726 and CA-RIV-8195) and three historic trash scatters: CA-RIV-3970, CA-RIV-3971 and CA-RIV-12672. Three of the eight previously recorded cultural resources, P-33-007297 (the former Raymar Dairy), P-33-015735 (a historic rural residential complex), and P-33-024874/CA-RIV-11852 (a post-1945 resource consisting of two concrete slabs), were found not to extend into the project area. Portions of the project area were not able to be surveyed due to active agricultural uses, which obscured views and precluded access.

## **4.4.2 Regulatory Framework**

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. Significant resources are those resources that have been found eligible for listing in the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP), as applicable.

### **4.4.2.1 National Historic Preservation Act**

Federal regulations that would be applicable to the project if there is a federal nexus (e.g., permitting or funding from a federal agency) consist of the National Historic Preservation Act (NHPA) and its implementing regulations (16 United States Code 470 et seq., 36 CFR [Code of Federal Regulations] Part 800). Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on "historic properties", that is, properties (either historic or archaeological) that are eligible for the NRHP. To be eligible for the NRHP, a historic property must be significant at the local, state, or national level under one or more of the following four criteria:

- A. Associated with events that have made a significant contribution to the broad patterns of our history;
- B. Associated with the lives of persons significant in our past;
- C. Embodies 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; and/or
- D. Has yielded or may be likely to yield, information important in prehistory or history.

### **4.4.2.2 California Environmental Quality Act**

CEQA, PRC 21084.1 and *CEQA Guidelines*, CCR Title 14 Section 15064.5 discuss significant cultural resources as "historical resources," and define them as:

- Resource(s) listed in or determined eligible by the State Historical Resources Commission for listing in the CRHR (14 CCR Section 15064.5[a][1]);
- Resource(s) either listed in the NRHP or in a “local register of historical resources” or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless “the preponderance of evidence demonstrates that it is not historically or culturally significant” (14 CCR Section 15064.5[a][2]);
- Resources determined by the Lead Agency to meet the criteria for listing in the CRHR (14 CCR Section 15064.5[a][3]).

For listing in the CRHR, a historical resource must be significant at the local, state, or national level under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; and/or
4. It has yielded or has the potential to yield information important to the prehistory or history of the local area, California, or the nation.

Under 14 CCR Section 15064.5(a)(4), a resource may also be considered a “historical resource” for the purposes of CEQA at the discretion of the lead agency.

All resources that are eligible for listing in the NRHP or CRHR must have integrity, which is the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. In an archaeological deposit, integrity is assessed with reference to the preservation of material constituents and their culturally and historically meaningful spatial relationships. A resource must also be judged with reference to the particular criteria under which it is proposed for nomination. Under Section 106 of the NHPA, actions that alter any of the characteristics that qualify a property for eligibility for listing in the NRHP “in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association” (36 CFR 800.5[a]) constitute an adverse effect to the historic property.

#### **4.4.2.3 Native American Heritage Values**

Federal and state laws mandate that consideration be given to the concerns of contemporary Native Americans with regard to potentially ancestral human remains, associated funerary objects, and items of cultural patrimony. Consequently, an important element in assessing the significance of the study site has been to evaluate the likelihood that these classes of items are present in areas that would be affected by the proposed project.

Potentially relevant to prehistoric archaeological sites is the category termed Traditional Cultural Properties in discussions of cultural resource management performed under federal auspices. According to Patricia L. Parker and Thomas F. King (1998), "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. Cultural resources can include Traditional Cultural Properties, such as gathering areas, landmarks, and ethnographic locations, in addition to archaeological districts. Generally, a Traditional Cultural Property may consist of a single site, or group of associated archaeological sites (district or traditional cultural landscape), or an area of cultural/ethnographic importance.

In California, the Traditional Tribal Cultural Places Bill of 2004 requires local governments to consult with Native American Tribes during the project planning process, specifically before adopting or amending a General Plan or a Specific Plan, or when designating land as open space for the purpose of protecting Native American cultural places. The intent of this legislation is to encourage consultation and assist in the preservation of Native American places of prehistoric, archaeological, cultural, spiritual, and ceremonial importance. State AB 52, effective July 1, 2015, introduced the Tribal Cultural Resource (TCR) as a class of cultural resource and additional considerations relating to Native American consultation into CEQA. As a general concept, a TCR is similar to the federally defined Traditional Cultural Property; however, it incorporates consideration of local and state significance and required mitigation under CEQA. A TCR may be considered significant if included in a local or state register of historical resources; or determined by the lead agency to be significant pursuant to criteria set forth in PRC §5024.1; or is a geographically defined cultural landscape that meets one or more of these criteria; or is a historical resource described in PRC §21084.1, a unique archaeological resource described in PRC §21083.2; or is a non-unique archaeological resource if it conforms with the above criteria.

### 4.4.3 Thresholds of Significance

The following criteria from Appendix G of the *CEQA Guidelines* are used as thresholds of significance to determine the impacts of the proposed project as related to cultural resources and tribal cultural resources. The proposed project would have a significant impact if it would:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5;
2. Cause a substantial adverse change in the significance of an archaeological resources pursuant to §15064.5;
3. Disturb human remains, including those interred outside of formal cemeteries; or
4. Cause a substantial change in the significance of a tribal cultural resource, defined in PRC §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:
  - a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC §5020.1(k), or

- b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC §5024.1. In applying the criteria set forth in subdivision (c) of PRC §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

#### **4.4.4 Project Impacts and Mitigation**

##### **4.4.4.1 Issue 1: Historical Resources**

*Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to §5064.5?*

#### **Impact Analysis**

Five cultural resources were determined to be located within or immediately adjacent to the project, as discussed previously in Section 4.4.1. These include the Colorado River Aqueduct and San Diego Aqueduct (CA-RIV-6726H and CA-RIV-8195) and three historic trash scatters: CA-RIV-3970, CA-RIV-3971, and CA-RIV-12672.

The Colorado River Aqueduct (CA-RIV-6726H) traverses approximately 242 miles to bring water from the Colorado River at Lake Havasu to Lake Mathews and ultimately to constituent cities. The segment of the resource within the project area is part of the Casa Loma Siphon Barrel 2 of the Aqueduct. The Aqueduct as a whole has previously been assessed as eligible for the NRHP and the CRHR, although not all segments have been assessed. The segment of the Casa Loma Siphon within the project area was built in 1959-1960 and is entirely underground. To the west of the project area, the Casa Loma Canal is an aboveground channel. South of the existing pipeline, a bridge constructed of railroad ties was identified within the project area. The bridge appeared to be built to channel the water flow in the creek and allow vehicles to cross; its age is indeterminate. The Aqueduct would not be affected by the project, which proposes to slipline the existing District pipeline in this area.

The segment of The San Diego Aqueduct and San Diego Canal (CA-RIV-8195) within the project area is the same as the segment of the Colorado River Aqueduct recorded within the project area as part of CA-RIV-6726H). As noted above, the Aqueduct would not be affected by the proposed project.

CA-RIV-3970, CA-RIV-3971, and CA-RIV-12672 are historic trash scatters located along portions of the project's proposed 36-inch pipeline route. The sites are recorded as scatters of historic and modern refuse, dating from the late nineteenth century to mid-twentieth century, and consisting of objects such as glass bottles and jars and ceramic fragments. CA-RIV-3970 was previously assessed and is not considered a significant resource under CEQA, due to its limited research potential and the large amount of disturbance to the site. CA-RIV-3971 and CA-RIV-12672 have also been subject to a great deal of past disturbance and have very limited research potential, if any. All three resources are therefore ineligible for the NRHP or CRHP. In addition, these three sites (1) are not associated with events that have made a significant contribution to the broad patterns of history; (2) cannot be shown to be associated with the lives of persons significant to the past; (3) do not embody the distinctive characteristics of a type, period, or method of construction or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; and (4) are not likely to yield information important in prehistory or history.

As such, no historical resources per CEQA would be affected by the project, and no impacts would occur.

### **Mitigation Measures**

No impacts to historical resources would occur; therefore, no mitigation is required.

#### **4.4.4.2 Issue 2: Archaeological Resources**

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

### **Impact Analysis**

As discussed previously under Section 4.4.1, cultural resources are known to occur in the immediate vicinity of the project area and the area is considered as sensitive for cultural resources, as noted by the Soboba tribe. Based on the presence of cultural resources in the project area, the cultural sensitivity of the project area, and the fact that portions of the area could not be surveyed due to active agricultural uses and other factors that could have been obscuring cultural resources within the project area, unidentified resources could be present within the project footprint. The project therefore has the potential to affect archaeological resources during ground-disturbing activities, such as clearing, trenching, and grading, and impacts are considered potentially significant. As such, an archaeological and Native American monitoring program would be required, as outlined below in mitigation measures MM-CUL-1 through MM-CUL-6.

### **Mitigation Measures**

The following mitigation measures would be required to be implemented during project construction to avoid potential impacts to archaeological resources:

- MM-CUL-1 Cultural Resources Treatment and Monitoring Agreement.** At least 30 days prior to the start of ground-disturbing activities, the District shall contact the Consulting Tribe(s) to develop Cultural Resource Treatment Monitoring Agreement(s) (“Agreement”). The Agreement(s) shall address the treatment of archaeological resources inadvertently discovered on the project site; project grading; ground disturbance and development scheduling; the designation, responsibilities, and participation of tribal monitor(s) during grading, excavation, and ground-disturbing activities; and compensation for the tribal monitors, including overtime, weekend rates, and mileage reimbursements.
- MM-CUL-2 Develop a Cultural Resources Monitoring Plan.** Prior to grading activities, a Cultural Resources Monitoring Plan shall be prepared by a qualified archaeologist in consultation with the Consulting Tribe(s). The plan shall also identify the location and timing of cultural resources monitoring. The plan shall contain an allowance that the qualified archaeologist, based on observations of subsurface soil stratigraphy or other factors during initial grading, and in consultation with the Native American monitor and the lead agency, may reduce or discontinue monitoring as warranted if the archaeologist determines that the possibility of encountering archaeological deposits is low. The plan shall outline the appropriate measures to be followed in the event of unanticipated discovery of cultural resources during project implementation (including during the survey to occur following vegetation removal and monitoring during ground-disturbing

activities). The plan shall identify avoidance as the preferred manner of mitigating impacts to cultural resources. The plan shall establish the criteria utilized to evaluate the historic significance (per CEQA) of the discoveries, methods of avoidance consistent with *CEQA Guidelines* Section 15126.4(b)(3), as well as identify the appropriate data recovery methods and procedures to mitigate the effect of the project if avoidance of significant historical or unique archaeological resources is determined to be infeasible. The plan shall also include reporting of monitoring results within a timely manner, disposition of artifacts, curation of data, and dissemination of reports to local and state repositories, libraries, and interested professionals. A qualified archaeologist and Consulting Tribe(s) tribal monitor shall attend a pre-grade meeting with District staff, the contractor, and appropriate subcontractors to discuss the monitoring program, including protocols to be followed in the event that cultural material is encountered.

- MM-CUL-3 Tribal Monitoring Agreements.** A qualified archaeological monitor and a Consulting Tribe(s) monitor shall be present for ground-disturbing activities associated with the Project, and both the project archaeologist and tribal monitor(s) will make a determination as to the areas with a potential for encountering cultural material. At least seven business days prior to project grading, the District shall contact the tribal monitors to notify the Tribe of grading/excavation and the monitoring program/schedule, and to coordinate with the Tribe on the monitoring work schedule. Both the archaeologist and the tribal monitor shall have the authority to stop and redirect grading activities in order to evaluate the nature and significance of any archaeological resources discovered within the project limits. Such evaluation shall include culturally appropriate temporary and permanent treatment pursuant to the Cultural Resources Treatment and Monitoring Agreement, which may include avoidance of cultural resources, in-place preservation, data recovery, and/or reburial so the resources are not subject to further disturbance in perpetuity. Any reburial shall occur at a location predetermined between the District and the Consulting Tribe(s), details of which shall be addressed in the Cultural Resources Treatment and Monitoring Agreement in MM-CUL-1. Treatment may also include curation of the cultural resources at a tribal curation facility, as determined in discussion among the District, the project archaeologist, and the tribal representatives and addressed in the Cultural Resources Treatment and Monitoring Agreement referenced in MM-CUL-1.
- MM-CUL-4 Evaluation of Discovered Artifacts.** All artifacts discovered at the development site shall be inventoried and analyzed by the project archaeologist and tribal monitor(s). A monitoring report will be prepared, detailing the methods and results of the monitoring program, as well as the disposition of any cultural material encountered. If no cultural material is encountered, a brief letter report will be sufficient to document monitoring activities.
- MM-CUL-5 Disposition of Inadvertent Discoveries.** In the event that Native American cultural resources are recovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries with the tribe. The District shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources, and adhere to the following:

1. Preservation-in-place is the preferred option; preservation-in-place means avoiding the resources and leaving them in the place where they were found with no development affecting the integrity of the resource.
2. If preservation-in-place is not feasible, on-site reburial of the discovered items as detailed in the Monitoring Plan required pursuant to MM-CUL-2 is the next preferable treatment measure. This shall include measures and provisions to protect the future reburial area from future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments.
3. In the event that on-site reburial is not feasible, the District shall enter into a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 Code of Federal Regulations 800 Part 79 and therefore would be curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.

**MM-CUL-6 Non-Disclosure of Reburial Locations.** It is understood by all parties that unless otherwise required by law, the site of any reburial of culturally sensitive resources shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254(r), parties, and Lead Agencies will be asked to withhold public disclosure information related to such reburial.

### **Significance After Mitigation**

With implementation of MM-CUL-1 through MM-CUL-6, potential impacts to archaeological resources would be less than significant.

#### **4.4.4.3 Issue 3: Human Remains**

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

### **Impact Analysis**

No formal cemeteries are known to occur in the immediate vicinity of the project and no human remains were observed or identified during the survey conducted for the project. Although not anticipated, the potential exists to encounter human remains during the project's ground-disturbing activities, such as clearing, trenching, and grading. The potential for inadvertent disturbance of any human remains would be considered a significant impact, regardless of archaeological significance or association. As such, mitigation measure MM-CUL-7 below would be implemented.

## Mitigation Measures

The following mitigation measure would be implemented during project construction to avoid potential impacts to human remains.

**MM-CUL-7 Procedure to Address Inadvertent Disturbance of Human Remains.** If Native American human remains are encountered, PRC Section 5097.98 and California Health and Safety Code Section 7050.5 will be followed. If human remains are encountered no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California PRC Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours. Subsequently, the NAHC shall identify the person or persons it believes to be the “most likely descendant.” The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in PRC Section 5097.98.

## Significance After Mitigation

With implementation of MM-CUL-7, potential impacts to human remains would be less than significant.

### 4.4.4.4 Issue 4: Tribal Cultural Resources

*Would the proposed project cause a substantial change in the significance of a tribal cultural resource, defined in Public Resources Code §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:*

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

## Impact Analysis

Per AB 52, the District initiated consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project to identify resources of cultural or spiritual value to the tribe. On February 21, 2020, the District sent consultation notification letters via certified mail to Native American groups on the District’s Master List pursuant to the requirements of AB 52 pertaining to government-to-government consultation. The District followed this with a corrected notice on February 26, 2020 to the same list of tribes. Table 4.4-1, *Native American Tribal Consultation Summary*, summarizes the District’s consultation efforts. To date, the District has conducted consultation with three Native American Tribes: The Soboba Band of Luiseno Indians (Soboba), Rincon Band of Luiseño Indians (Rincon), and the Agua Caliente Band of Cahuilla Indians (Agua Caliente). In

consultation meetings, Tribes highlighted their concerns for the site and made recommendations. They noted potential tribal cultural resources known to be in the vicinity, but none that were identified within the proposed project site. All Tribes expressed concern with potential unearthing of unknown artifacts while grading the sites for the brine ponds and AWTF, as well as trenching for pipeline installation and re-lining. Tribes recommended tribal monitoring to cover the potential for uncovering of unknown buried artifacts.

**Table 4.4-1  
 NATIVE AMERICAN TRIBAL CONSULTATION SUMMARY**

<b>Tribe/ Organization</b>	<b>Individual Contacted</b>	<b>Date Letter Mailed</b>	<b>Response Received</b>	<b>Consultation Held</b>
Agua Caliente	Katie Croft	February 21 and 26, 2020	Requested consultation	July 23, 2020
Morongo	Travis Armstrong	February 21 and 26, 2020	Deferred to Soboba Band of Luiseno Indians.	N/A
Pechanga	Ebru Ozdil	February 21 and 26, 2020	Did not respond	
Rincon	Destiny Colocho	February 21 and 26, 2020	Identified location is within Territory of the Luiseno people, and within Rincon’s specific area of Historic interest. Also requested documents and consultation.	April 22, 2020
San Manuel	Jessica Mauck and Alexandra McCleary	February 21 and 26, 2020	Site is located outside Serrano ancestral territory - declined consultation	N/A
Soboba	Joseph Ontiveros	February 21 and 26, 2020	Requested consultation	April 28, 2020

As discussed above, there are no identified resources, including tribal cultural resources, that are listed or eligible for listing in the CRHR that would be affected by implementation of the project. In addition, no specific significant tribal cultural resources were identified within the project footprint by Tribes during consultation through the NAHC; however, Soboba has indicated that the project is within their Traditional Use Areas, is in proximity to known sites, and is considered to be culturally significant by the people of Soboba. Based on the cultural sensitivity of the area, tribal cultural resources could be present within the project’s proposed footprint, and the project therefore has the potential to affect tribal cultural resources during ground-disturbing activities, such as clearing, trenching, and grading. Impacts are considered to be potentially significant. As such, an archaeological and Native American monitoring program would be implemented, as outlined above in mitigation measures MM-CUL-1 through MM-CUL-6. MM-CUL-7 would also be implemented to avoid impacts to Native American human remains, if encountered.

**Mitigation Measures**

MM-CUL-1 through MM-CUL-7 would be implemented during project construction to avoid impacts to tribal cultural resources.

### **Significance After Mitigation**

With implementation of MM-CUL-1 through MM-CUL-7, potential impacts to tribal cultural resources would be less than significant.

This page intentionally left blank

## 4.5 ENERGY

This section addresses the potential energy-related impacts of the proposed project. The following discussion includes a description of existing conditions as related to energy, a summary of applicable regulations, and an evaluation of the proposed project's potential environmental effects associated with the wasteful, inefficient, or unnecessary consumption of energy resources and conflict with plans for renewable energy or energy efficiency. This section is based in part on information from the Air Quality/Greenhouse Gas Emissions Technical Report prepared by HELIX (2021; Appendix B); the California Energy Demand (CED) 2018-2030 Revised Forecast (California Energy Commission [CEC] 2018); and the CEC's Final 2019 Integrated Energy Policy Report (CEC 2020a).

### 4.5.1 Existing Conditions

#### 4.5.1.1 Existing Energy Consumption and Generation

##### Units of Measure

The units of energy used in this section are the British thermal units (BTU), kWh<sup>1</sup>, therms, and gallons. A BTU is the quantity of heat required to raise the temperature of one pound of water one °F at sea level. Because the other units of energy can all be converted into equivalent BTU, the BTU is used as the basis for comparing energy consumption associated with different resources. A kWh is a unit of electrical energy, and one kWh is equivalent to approximately 3,413 BTU, taking into account initial conversion losses (i.e., from one type of energy, such as chemical, to another type of energy, such as mechanical) and transmission losses. Natural gas consumption is described typically in terms of cubic feet or therms; one cubic foot of natural gas is equivalent to approximately 1,050 BTU, and one therm represents 100,000 BTU. One gallon of gasoline/diesel is equivalent to approximately 125,000/139,000 BTU, respectively, taking into account energy consumed in the refining process.

##### California Energy Overview

###### Electricity

Historically, California has relied heavily on oil- and gas-fired power plants to generate electricity. As a result of regulatory measures and tax incentives, California's electrical system has become more reliant over recent years on renewable energy sources, including cogeneration, wind energy, solar energy, geothermal energy, biomass conversion, transformation plants, and small hydroelectric plants.

California's electricity needs are satisfied by a variety of entities, including investor-owned utilities, publicly owned utilities, electric service providers, and community choice aggregators.<sup>2</sup> In 2018, the California power mix totaled 285,488 gigawatt hours (GWh). In-state generation accounted for 194,842 GWh, or 68 percent, of the state's power mix. The remaining electricity came from out-of-state

---

<sup>1</sup> Kilowatt hours is the most commonly used measure of electrical consumption; however, due to the scope of this analysis, gigawatt hours (GWh; equivalent to one million kWh) is also used.

<sup>2</sup> Community choice aggregation is authorized in California by AB 117 (Chapter 836, Statutes of 2002), which allows cities, counties, and groups of cities and counties to aggregate the electric load of the residents, businesses, and institutions within their jurisdictions to provide them electricity.

imports (CEC 2020b). Table 4.5-1 provides a summary of California’s total (in-state generation plus out-of-state imports) power mix sources as of 2018.

**Table 4.5-1  
 CALIFORNIA ELECTRICITY SOURCES 2018**

Fuel Type	Percent of California Power
Natural Gas	34.9
Nuclear	9.1
Large Hydro	10.7
Coal	3.3
Renewable	31.4
Unspecified	10.5

Source: CEC 2020b

Note: Total may not add to 100 percent due to rounding.

Since deregulation in 1998, the CEC has licensed or given small power plant exemptions to:

- 66 projects representing 22,965 megawatts<sup>3</sup> (MW) currently on-line;
- 4 projects totaling 2,635 MW currently under construction or pre-construction;
- 2 projects totaling 795 MW currently on hold or under suspension; and
- 15 projects totaling 5,844.5 MW approved but then cancelled by applicants, or license expired or terminated before construction.

In addition, as of June 2020, the CEC had seven proposed projects under review, totaling approximately 651 MW (CEC 2020c). One additional geothermal steam turbine project, representing a total of 250 MW, has been announced but has not yet filed with the CEC.

On the demand side, Californians consumed 284,060 GWh of electricity in 2016 (CEC 2018). CEC staff forecasts of future electricity demand anticipate that consumption will grow by between 0.99 and 1.59 percent per year from 2017 to 2030, with peak demand forecasts growing by 0.30 to 1.52 percent annually from 2017 to 2030 (CEC 2018).

### Natural Gas

Natural gas provides the largest portion of the total in-state capacity and electricity generation in California, with nearly 45 percent of the natural gas burned in California used for electricity generation (CEC 2019a). Much of the remainder was consumed in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors for uses such as cooking, space heating, and as an alternative transportation fuel. In 2012, total natural gas demand in California for industrial, residential, commercial, and electric power generation was 2,313 billion cubic feet (bcf) per year, up from 2,196 bcf per year in 2010 (CEC 2019a).

<sup>3</sup> Megawatts (MW) is a unit of power and represents the rate at which energy is generated or used. One MW is equivalent to one million watts.

## Transportation Fuels

Transportation accounts for a major portion of California's energy budget. Automobiles and trucks consume gasoline and diesel fuel, which are nonrenewable energy products derived from crude oil. Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles (SUVs). In 2015, 15.1 billion gallons of gasoline were sold in California (CEC 2019b). Diesel fuel is the second most consumed fuel in California, used by heavy-duty trucks, delivery vehicles, buses, trains, ships, boats, and farm and construction equipment. In 2015, 4.2 billion gallons of diesel were sold in California (CEC 2019b).

## Regional Energy Overview

### Electricity

Electrical service in the project area is provided by Southern California Edison (SCE). In 2015, SCE delivered more than 87 billion kWh of electricity to 15 million people over 15 counties and a service area of 50,000 square miles (SCE 2020). Approximately 36 percent of SCE's 2018 power mix was from renewable power sources, predominantly solar (13 percent), wind (13 percent), and geothermal (8 percent). The remaining 64 percent of the power mix was from natural gas (17 percent), nuclear (6 percent), large hydroelectric (4 percent), and unspecified sources (i.e., electricity transactions that are not traceable to specific generation sources; 37 percent; SCE 2019a). In 2016, SCE's Tehachapi Renewable Transmission Project, the nation's largest wind energy delivery infrastructure, became operational. It is a series of new and upgraded high-voltage transmission lines and substations capable of carrying 4,500 MW of electricity (enough energy to supply three million homes) from renewable wind and other generators in Kern County. The project is designed to provide added capacity to strengthen SCE's electrical system and also deliver clean, renewable energy to the region to help meet California's renewable energy goals (SCE 2019b).

The CED 2018-2030 Revised Forecast presents three demand scenarios for the SCE planning area's forecasted electricity consumption: high demand, mid demand, and low demand. The high demand scenario is characterized by low electricity rates, high population growth, low levels of efficiency, and low self-generation. Inversely, the low demand scenario is characterized by high electricity rates, low population growth, high levels of efficiency, and high self-generation. The mid demand scenario uses assumptions in between the high and low scenarios. The CED 2018-2030 Revised Forecast estimates that annual electricity consumption for the SCE planning area would reach between approximately 120,000 and 135,000 GWh by 2030, depending on which demand scenario is realized. The SCE Planning Area's consumption in 2016 was approximately 110,000 GWh (CEC 2018).

The County is one of the 15 counties serviced by SCE. The County's electricity consumption over from the five-year period of 2014 through 2018 is shown in Table 4.5-2, *Riverside County Electricity Consumption 2014-2018*. As shown in Table, 4.5-2, electricity consumption within the County decreased from 2014 to 2015 and then increased each year from 2015 to 2018.

**Table 4.5-2  
 RIVERSIDE COUNTY ELECTRICITY CONSUMPTION 2014-2018**

Year	Electricity Consumption (GWh)
2014	15,551
2015	15,286
2016	15,471
2017	16,159
2018	16,257

Source: CEC 2016a  
 GWh = gigawatt hours

In April 2018, San Jacinto Power (SJP) began serving customers in the City. SJP is a locally controlled electricity provider, governed and administered by the San Jacinto City Council, that generates electricity and then utilizes SCE transmission lines to deliver electricity to homes and businesses. Through SJP, customers within the city can choose between different electricity products that have different percentages of renewable energy, with one product providing a 100 percent renewable energy option.

**Natural Gas**

Natural gas service in the project area is provided by the Southern California Gas Company (SoCalGas). SoCalGas serves 21.8 million consumers over more than 500 communities and a service area of 24,000 square miles.

The County’s gas consumption over from the five-year period of 2014 through 2018 is shown in Table 4.5-3, *Riverside County Gas Consumption 2014-2018*. As shown in Table 4.5-3, gas consumption within the County increased from 2014 to 2016 and then remained relatively constant from 2016 to 2018.

**Table 4.5-3  
 RIVERSIDE COUNTY GAS CONSUMPTION 2014-2018**

Year	Gas Consumption (millions of Therms)
2014	331
2015	353
2016	396
2017	393
2018	399

Source: CEC 2016b

**Water-related Energy**

Approximately 75 percent of the District’s water supply is provided by the Metropolitan Water District of Southern California through the State Water Project and Colorado River Aqueduct. Before it reaches the District’s service area, this imported water is pumped hundreds of miles from either the Sacramento-San Joaquin Bay Delta in northern California or from the Colorado River. Energy is used in the conveyance, treatment, and distribution of water; therefore, there is a certain amount of energy use

associated with every unit of water utilized by a consumer. This is known as “embedded” energy. Each unit of water may have a different amount of embedded energy in it depending on how much it is processed or conveyed before it is delivered to the user. For example, this energy is quite different in northern California compared to southern California, because it depends on pumping requirements related to distance and topography. The pumping of water along the Federal and State Water projects and across the Tehachapi Mountains into the Los Angeles Basin account for the higher energy embedded in consumption of water in southern California.

In California, the pumping, treating, and heating of water accounts for approximately 20 percent of the statewide electricity use (Public Policy Institute of California 2016).

## **4.5.2 Regulatory Framework**

Energy consumption is a significant source of greenhouse gas (GHG) emissions. As such, federal, state, regional, and local regulations adopted for the purpose of reducing GHG emissions inherently include policies and goals related to energy consumption. Such policies and goals applicable to the project (most notably Corporate Average Fuel Economy [CAFE] standards; CCR, Title 24, Part 6 [California Energy Code]; CCR, Title 24, Part 11 [California Green Building Standards Code]; EO S-3-05; EO B-30-15; SB 32; AB 1493; CARB Scoping Plan; and the SCAG 2016-2040 RTP/SCS) are detailed in Chapter 4.7, Greenhouse Gas Emissions. Additional energy-related regulations not included in Chapter 4.7 are discussed below.

### **4.5.2.1 Federal**

#### **Energy Independence and Security Act of 2007**

House of Representatives Bill 6 (HR 6), the federal Energy Independence and Security Act of 2007, established new standards for a few equipment types not already subjected to a standard, and updated some existing standards. Perhaps the most substantial new standard that HR 6 established is for general service lighting that is being deployed in two phases. First, phased in between 2012 through 2014, common light bulbs were required to use about 20 to 30 percent less energy than previous incandescent bulbs. Second, by 2020, light bulbs were required to consume 60 percent less energy than previous incandescent bulbs; this requirement will effectively phase out the incandescent light bulb.

### **4.5.2.2 State**

#### **California Energy Plan**

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the fewest environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators.

### 4.5.2.3 Local

#### City of San Jacinto General Plan

One of the seven resource management goals identified in the Resource Management Element of the City's General Plan is to promote the conservation of energy (Resource Management Goal 7). Policies to support this goal include the following:

- Policy 7.1:** Encourage the efficient use of energy resources.
- Policy 7.2:** Promote the use of alternative energy sources.
- Policy 7.3:** Support the use of energy-efficient building materials, equipment, and design in City facilities and infrastructure.
- Policy 7.4:** Encourage recycling programs that reduce emissions associated with manufacturing and waste disposal.

### 4.5.3 Thresholds of Significance

The following criteria from Appendix G of the *CEQA Guidelines* are used as thresholds of significance to determine the impacts of the proposed project as related to energy. The proposed project would have a significant impact if it would:

1. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

### 4.5.4 Project Impacts and Mitigation

#### 4.5.4.1 Issue 1: Wasteful, Inefficient, or Unnecessary Energy Consumption

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

#### Impact Analysis

##### Construction Energy Use

Project construction would require the use of heavy off-road construction equipment for the various construction activities associated with each project component. Construction would also involve construction workers commuting to and from the work sites, and vendors vehicles and haul trucks delivering materials to and from the work sites. Construction equipment and vehicles would require gasoline, diesel, and potentially other fuel sources to operate. Information related to the number of heavy off-road equipment pieces and to vehicle miles traveled (VMT) for on-road construction vehicles, as well as associated fuel usage, was obtained from Appendix B of this EIR. Table 4.5-4, *Estimated Energy Consumption from Construction Equipment and Vehicles*, presents the anticipated types and quantities of heavy off-road equipment by project phase and construction activity, the diesel fuel gallons

required, and the energy consumed. The table also shows the fuel usage and energy consumption associated with on-road construction vehicles. The project is not anticipated to consume natural gas or substantial amounts of electricity during construction.

**Table 4.5-4  
ESTIMATED ENERGY CONSUMPTION FROM CONSTRUCTION EQUIPMENT AND VEHICLES**

Project Component	Activity	Equipment	Qty	Diesel Fuel (gallons)	kBTU
<b>PHASE I</b>					
AWTF	Site Preparation	Tractor/Loader/Backhoe	2	106	14,695
	Grading	Dozer	1	101	14,051
		Grader	1	250	34,701
		Excavator	1	183	25,392
		Dump Truck	1	465	64,598
	Underground Utilities	Excavator	2	349	48,476
		Tractor/Loader/Backhoe	2	202	28,054
	Construction	Crane	1	1,246	173,252
		Excavator	2	4,152	577,099
		Tractor/Loader/Backhoe	2	2,403	333,974
		Boom Forklift	1	1,456	202,430
		Roller	1	1,032	143,490
		Dump Truck	1	3,772	524,334
		Plate Compactor	1	148	20,501
	Paving	Roller	2	91	12,627
Paver		2	181	25,160	
Architectural Coatings	Air Compressor	1	42	5,800	
Brine Management System	Site Preparation	Tractor/Loader/Backhoe	2	317	44,085
	Grading	Dozer	2	1,103	153,288
		Grader	2	2,723	378,557
		Excavator	2	1,993	277,008
		Tractor/Loader/Backhoe	2	1,153	160,307
		Dump Truck	3	5,432	755,042
	Underground utilities/ infrastructure (lining system)	Crane	1	648	90,901
		Excavator	2	2,159	300,092
		Tractor/Loader/Backhoe	2	1,249	173,666
	Insertion/Receiving Pits Excavation	Excavator	1	2,167	301,246
Tractor/Loader/Backhoe		1	1,254	174,334	

**Table 4.5-4 (cont.)**  
**ESTIMATED ENERGY CONSUMPTION FROM CONSTRUCTION EQUIPMENT AND VEHICLES**

Project Component	Activity	Equipment	Qty	Diesel Fuel (gallons)	kBTU
<b>PHASE I (cont.)</b>					
Conveyance Pipelines	Pipeline Sliplining	Excavator	1	2,167	301,246
		Generator	1	1,758	244,339
		Welder	1	977	135,857
	Trenching	Excavator	1	2,167	301,246
		Tractor/Loader/Backhoe	1	1,254	174,334
	Pipeline Installation	Excavator	1	2,167	301,246
		Tractor/Loader/Backhoe	1	1,254	174,334
		Generator	1	1,758	244,339
		Welder	1	977	135,857
	<b>Phase I Construction Equipment Total</b>				50,857 (diesel)
<b>Phase I On-road Construction Vehicles</b>				9,342 (diesel) 15,134 (gas)	3,175,128
<b>Total Phase I Construction Energy Expenditure</b>					<b>10,244,278</b>
<b>PHASE II</b>					
AWTF Expansion	Underground Utilities	Excavator	1	266	36,945
		Tractor/Loader/Backhoe	1	154	21,355
	Construction	Crane	1	1,033	143,529
		Excavator	2	3,439	477,970
		Tractor/Loader/Backhoe	2	1,988	276,275
		Boom Forklift	1	1,207	167,782
		Roller	1	856	118,947
		Dump Truck	1	3,133	435,443
		Plate Compactor	1	122	17,016
	Architectural Coatings	Air Compressor	2	46	6,422
<b>Phase II Construction Equipment Total</b>				12,242 (diesel)	1,701,682
<b>Phase II On-road Construction Vehicles</b>				4,076 (diesel) 2,866 (gas)	921,963
<b>Total Phase II Construction Energy Expenditure</b>					<b>2,623,645</b>

As shown in Table 4.5-4, the project's Phase I construction is estimated to consume a total of 10,244,278 kBTU of energy and the project's Phase II construction is estimated to consume a total of 2,623,645 kBTU of energy. The project's short-term energy use would be limited to that which is necessary to achieve successful completion of project construction; therefore, project construction would not use energy in a wasteful, inefficient, or unnecessary manner.

### Operational Energy Use

Operation of the proposed project would require energy at the AWTF for lighting, HVAC, and the process equipment used for the advanced water treatment, as well as at the brine management system

for the operation of various pumps. Interior and exterior lighting at the AWTF would comply with Title 24 requirements. The electricity use associated with Phase I project operation of the AWTF is estimated to be 2,971,470 kWh per year and the electricity use associated with Phase II project operation of the AWTF is estimated to be 10,764,116 kWh per year. Electricity use associated with the brine management system pumps is estimated to be 1,303,842 kWh per year during both Phases I and II. Project-generated traffic, anticipated to be limited to up to five employees commuting to the AWTF, occasional chemical deliveries to the AWTF, and occasional trips made by the public for tours of the AWTF, would not represent a substantial increase in energy (in the form of fuel) usage. The project's long-term energy use would be limited to that which is necessary for the project to successfully operate; therefore, project operations would not use energy in a wasteful, inefficient, or unnecessary manner.

### **Energy Savings**

By providing a local source of potable water, the project would reduce reliance on imported water, thereby reducing the energy used to pump water from the Sacramento-San Joaquin Bay Delta in northern California or from the Colorado River. The provision of potable water consumes large amounts of energy associated with regional source and conveyance, treatment, and local distribution. As discussed above, this type of energy use is known as embedded energy. While the project would result in a reduction in energy used for regional import, energy would still be required to locally pump water produced by the project that would be recharged into the groundwater table. As such, the electricity intensity factor associated with local pumping was subtracted from the electricity intensity factors for import to achieve a factor that represents the net savings electricity intensity factor associated with the provision of potable water that would result from the project. The electricity intensity factors are provided by the CEC's *California's Water – Energy Relationship Final Staff Report* (CEC 2005).

It is estimated that the project, at full Phase II buildout, would achieve a total potable water recharge capacity of 15,000 AFY. After factoring in a minor loss from evaporation, the project is estimated to save, and therefore reduce import of, 14,670 acre-feet, or 4,780 million gallons, of potable water per year. This would result in an electricity reduction of approximately 24,207,794 kWh per year.

Overall, the project would result in a net decrease in energy consumption and would therefore not use energy in a wasteful, inefficient, or unnecessary manner. Impacts would be less than significant.

### **Mitigation Measures**

Impacts related to the wasteful, inefficient, or unnecessary consumption of energy resources during project construction and operation would be less than significant; therefore, no mitigation is necessary.

#### **4.5.4.2 Issue 2: Conflict with Energy Plans**

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

### **Impact Analysis**

As discussed above under Section 4.5.2, because energy consumption is a significant source of GHGs, many regulations adopted for the purpose of reducing GHG emissions inherently include policies and goals related to energy consumption. A number of prominent plans and regulations aimed at reducing energy use and associated GHG emissions, including AB 1493 and the Low Carbon Fuel Standard (LCFS)

at the statewide level and SCAG's RTP/SCS at regional level, focus on reducing transportation source energy consumption and GHG emissions. The proposed project would generate minimal VMT and would therefore not conflict with such policies and regulations. In addition, the project would comply with applicable non-transportation energy regulations, such as Title 24 energy efficiency standards.

By producing a local supply of potable water, the project would reduce the energy used to import water to the region and would therefore result in a net decrease in energy consumption. As such, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

### **Mitigation Measures**

Impacts related to conflict with a state or local plan for renewable energy or energy efficiency would be less than significant; therefore, no mitigation is necessary.

## 4.6 GEOLOGY AND SOILS

This section addresses the potential geology and soils impacts of the proposed project. The following discussion includes a description of existing conditions as related to geology, soils, and seismicity; a summary of applicable regulations; and an evaluation of the proposed project's potential environmental effects associated with geology, soils, and seismic conditions.

### 4.6.1 Existing Conditions

#### 4.6.1.1 Geologic Setting

The project is located in western Riverside County, which is within the Peninsular Ranges geomorphic province. The Peninsular Ranges province lies in the southwestern-most region of California and extends south 775 miles past the U.S./Mexico border. It is bounded by the Transverse Ranges to the north, the Colorado Desert to the east, and the Pacific Ocean to the West. Included within the province is Orange County, as well as portions of Los Angeles, San Bernardino, Riverside, San Diego, and Imperial Counties. This province consists of a series of mountain ranges separated by long valleys, formed from faults branching from the San Andreas Fault. Due to tectonic movement, the Peninsular Ranges are slowly moving northward along the coast headed toward Alaska. The generalized geology of this province is summarized as intrusive granitic rocks that have pushed into older metamorphic rocks (California Geological Survey [CGS] and California State Parks 2015).

The project area is located between the two 7.5-minute quadrangles of Lakeview and San Jacinto. These quadrangles are located in the northern part of the Peninsular Ranges Province within the San Jacinto fault zone. The channel and floodplain of the ephemeral San Jacinto River is within the San Jacinto quadrangle. The project site is located within the San Jacinto Valley, which is a flat inland area situated at the western base of the San Jacinto Mountains. Most of the area west of the San Jacinto River near the project site consists of Pleistocene age fluvial deposits, the upper part of which forms the Paloma surface (CDC 2020). The project area is underlain by weathered granitic bedrock of variable thickness overlain by alluvial deposits. A majority of the project area is generally flat and composed of varying degrees of sandy to silty loam soils (U.S. Department of Agriculture [USDA] 2020). The project area elevation is approximately 1,500 feet AMSL.

#### 4.6.1.2 Seismicity

Southern California is a region of high seismic activity with numerous active and potentially active faults. Earthquakes along the San Andreas Fault relieve convergent plate stress in the form of right lateral strike slip offsets. The Transverse Ranges work as a block causing the San Andreas Fault to bend, producing compressional stresses that are manifested as reverse, thrust, and right lateral faults. Faulting associated with the compressional forces creates earthquakes and is primarily responsible for the mountain building, basin development, and regional upwarping found in this area.

Major earthquakes have affected the region in the past and can be expected to occur again in the near future on one of the principal active faults in the San Andreas Fault System. The principal active faults in the region include the San Andreas, San Jacinto, and Elsinore faults. The Alquist-Priolo Earthquake Fault Zoning Act, described in more detail under Section 4.6.2, *Regulatory Setting*, requires publication of earthquake fault zone maps around the surface traces of active faults so these areas can be avoided for future development. As shown on Figure 4.6-1, *Earthquake Faults*, and in Table 4.6-1, *Fault Zones in the*

*Project Vicinity*, Alquist-Priolo Earthquake Fault Zones pass through the project area, including the San Jacinto Casa Loma Segment that bisects the project site.

**Table 4.6-1  
 FAULT ZONES IN THE PROJECT VICINITY**

<b>Fault</b>	<b>Distance (miles)<sup>1</sup></b>	<b>Direction</b>	<b>Maximum Probable Earthquake</b>
San Jacinto	Casa Loma Segment Bisects Project Site	Casa Loma Segment Bisects Project Site	7.2
San Andreas	10	NE	8.0
Elsinore	15	SW	7.1

Source: CDC 2015

<sup>1</sup> Closest distance to the project site

Earthquake magnitude and intensity are two separate characteristics that can be measured to describe an earthquake. Magnitude measures the energy released at the source of the earthquake and is determined from measurements on seismographs. Intensity measures the strength of shaking produced by the earthquake at a certain location and is described by the Maximum Modified Mercalli Intensity Scale. Intensity is determined from effects on people, human structures, and the natural environment. Although magnitude and intensity describe different aspects of an earthquake, they are inherently linked. Over the last 100 years, there have been approximately four significant seismic events, or earthquakes, in the San Jacinto region according to the Southern California Earthquake Data Center (SCEDC; 2013).

### **4.6.1.3 Seismic Hazards**

Given the highly seismic nature of southern California, the project area is prone to experiencing seismic hazards associated with earthquakes. The probability of each seismic hazard with respect to the project area is defined in more detail below.

#### **Surface Fault Rupture**

Surface rupture occurs when movement on a fault breaks through to the surface. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Fault rupture almost always follows preexisting faults, which are zones of weakness. Ground rupture from fault displacement and related effects such as lurching (i.e., the rolling motion of surface materials associated with passing seismic waves) can adversely affect surface and subsurface facilities such as structures, pipelines, and wells. Since the San Jacinto Fault Zone bisects the project area, there is the potential for earthquake-related ground rupture and/or related effects.

#### **Ground Shaking**

Earthquakes on major faults can produce strong ground shaking. Ground shaking is affected by several things including the size of the earthquake, the type of ground the earthquake waves travel through, and the distance away from the earthquake source. The principal seismic hazard that could affect the project area is seismic ground shaking, which can affect the integrity of surface and subsurface facilities such as structures, foundations, pipelines (or other utilities) and wells, either directly from vibration-

related damage to rigid structures, or indirectly through associated hazards including liquefaction (as described below).

### **Liquefaction**

Liquefaction is the phenomenon whereby soils subjected to seismic (or other) ground shaking effects exhibit a loss of shear strength and demonstrate fluid-like flow behavior due to excess pore pressure. Loose, granular (low clay/silt content) and saturated soils with relative densities of less than approximately 70 percent are most susceptible to these effects, with liquefaction potential greatest at depths of less than approximately 50 feet. Surface and near surface manifestations from these events can include loss of support for structures/foundations, pavement, and utilities; dynamic settlement (including volume reductions in dry soils); lateral spreading (i.e., horizontal displacement on sloped surfaces as a result of underlying liquefaction), and ground lurching (a permanent displacement or shift of the ground surface). Site-specific geotechnical studies are the only reliable way of determining the specific liquefaction potential of a site; however, a determination of general risk potential can be provided based on soil type and depth of groundwater. According to the CDC's Geologic Survey, the project is located in an area of moderate liquefaction potential based on the soil type and presence of shallow groundwater (CDC 2020).

### **Tsunamis and Seiches**

Tsunamis (commonly referred to as tidal waves) are sea waves generated by sources such as underwater earthquakes or volcanic eruptions and can generate impacts related to inundation in coastal zones. Because the project area is located approximately 40 miles inland and at elevations of approximately 1,500 feet or more AMSL, potential hazards associated with tsunamis are considered low.

Seiches are defined as wave-like oscillatory movements in enclosed or semi-enclosed bodies of water such as lakes or reservoirs and are most typically associated with seismic activity. Seiches can result in flooding damage and related effects (e.g., erosion) in surrounding areas from spilling or sloshing water, as well as increasing pressure on containment structures. The potential for seiche-related hazards in the project area is generally considered low. The San Jacinto Reservoir and Diamond Valley Lake, located one mile east and six miles south of the AWTF project site, do not represent a seiche or dam inundation risk to the project due to the intervening distances.

#### **4.6.1.4 Geologic Hazards**

##### **Landslides and Slope Failure**

The occurrence of landslides and other types of slope failures (e.g., rock falls and mudflows) is influenced by a number of factors, including slope grade, geologic and soil characteristics, moisture levels and vegetation cover. Landslides can be triggered by a variety of potentially destabilizing conditions or events, such as gravity, fires, precipitation, grading, and seismic activity. Seismically induced landslides and rock falls could occur throughout Riverside County in a major earthquake and occur most often on steep or compromised slopes. Factors controlling the stability of slopes include: (1) slope height and steepness; (2) engineering characteristics of the earth materials comprising the slope; and (3) intensity of ground shaking. Based on these conditions, the potential for hazards from seismic-related landslides and other slope failures in the project area is considered low since the terrain is relatively flat. In addition, according to Figure PS-1 from the City of San Jacinto's General Plan Public

Safety Element, the project area is not located in a steep slope area and would not be at risk for landslides or slope failure (City of San Jacinto 2006).

### **Lateral Spreading**

Lateral spreads are horizontal displacement on sloped surfaces as a result of underlying liquefaction. Lateral spreads can be triggered by an earthquake or artificially induced. Lateral spreading in fine-grained materials on shallow slopes is usually progressive (USGS 2004). Lateral spreading could occur as the project is located in an area of moderate liquefaction potential based on the soil type and presence of shallow groundwater (CDC 2020).

### **Expansive Soils**

Expansive soils are soils that have a significant amount of clay particles which can give up water (shrink) or take on water (swell) depending on the amount of moisture present. The cyclical change in volume over time exerts stress on buildings and other loads placed on these soils that can lead to damage. The ability of clayey soil to change volume can result in uplift or cracking to foundation elements or other rigid structures such as slabs-on-grade, rigid pavements, sidewalks, or other slabs or hardscape founded on these soils. Expansive soils can be widely dispersed and can be found in hillside areas as well as low-lying alluvial basins (County of Riverside 2015). According to the City of San Jacinto's General Plan Public Safety Element, moderately to highly expansive clay is present in the sediments underlying the project site (City of San Jacinto 2006).

### **Subsidence**

Potential hazards related to subsidence are typically associated with conditions such as karst/limestone terrain (i.e., the formation of subsurface cavities by dissolution of soluble rocks), subsurface mining, large-scale groundwater or oil and gas withdrawal, or decomposition of thick organic (peat) layers. Subsidence can result in a loss of support capability within the associated soil or formational materials, potentially resulting in damage to surface and subsurface structures such as buildings, pavement, pipelines, and utilities. Recently deposited alluvial sediments could be subject to settlement. San Jacinto has experienced documented subsidence and is susceptible to subsidence due to shallow groundwater levels (County of Riverside 2015).

## **4.6.2 Regulatory Framework**

### **4.6.2.1 Federal**

#### **International Building Code**

The IBC is the building code that must be implemented throughout the United States and its territories and is an essential tool to preserve public health and safety that provides safeguards from hazards associated with the built environment. It addresses design and installation of innovative materials that meet or exceed public health and safety goals. Provisions within the IBC are intended to ensure that structures can adequately resist seismic forces during earthquakes. These seismic provisions represent the best available guidance on how structures should be designed and constructed to limit seismic risk (Federal Emergency Management Agency [FEMA] 2016).

#### **4.6.2.2 State**

##### **California Building Code**

The 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. 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 provides requirements for general structural design and includes means for determining earthquake loads. 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. According to the CBC, 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. Although no guarantees can be made, 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.

Seismic design specifications are determined according to the seismic design category (SDC) in accordance with Chapter 16 of the CBC. Chapter 18 of the CBC covers the requirements of geotechnical investigations (Section 1803), excavation, grading, and fills (Section 1804), loadbearing of soils (Section 1806), as well as foundations (Section 1808), shallow foundations (Section 1809), and deep foundations (Section 1810). 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.

##### **Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act)**

The Alquist-Priolo Act was passed in 1972 to provide a mechanism for reducing losses from surface fault rupture on a statewide basis. The main intent of the Alquist-Priolo Act is to ensure public safety by preventing the construction of buildings used for human occupancy on the surface trace of active faults. The Alquist-Priolo Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The law requires the State Geologist to establish regulatory zones, known as Earthquake Fault Zones, around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning and

controlling new or renewed construction. Local agencies must regulate most development projects within the zones.

### **Construction General Permit**

The NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, otherwise referred to as 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 or more acres 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 (LUP), including installation of water pipelines and other utility lines.

The Construction General Permit requires the development and implementation of a SWPPP that includes specific BMPs designed to prevent pollutants from contacting stormwater and keep sediment and other chemicals or pollutants from moving offsite into receiving waters. Types of BMPs include, but are not limited to, erosion control, sediment control, waste management, and good housekeeping. The Construction General Permit also includes post-construction requirements for construction projects that state post-project hydrology must match pre-project hydrology; however, LUPs including pipelines are not subject to post-construction requirements due to the nature of their construction to return project sites to preconstruction conditions. For LUPs, the permit states that one of the following conditions must be met: (1) at least 70 percent of pre-existing vegetative cover is reestablished following construction; (2) in areas that were not previously vegetated, sites must be returned to original grade and/or soils must be compacted 3) or equivalent measures such as blankets, soil cement or geotextiles have been. 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.

### **California Well Standards**

In June of 1991, the California DWR published well standards to ensure groundwater quality is protected. These include surface construction features, sealing, casing, and rehabilitation and repair standards.

#### **4.6.2.3 Local**

##### **Riverside County Well Permit Application**

The County of Riverside Department of Environmental Health (DEH) requires permits for the construction and/or abandonment of water wells, including monitoring and extraction wells. Permits are to be obtained by those who plan to build a well as well as companies that provide well drilling services. The County application for a well permit requires disclosure of well information including its location, depth, type of casing, perforation, and sealed zones. Wells are inspected by the County during different stages of construction to help verify State and County standards are being met.

### 4.6.3 Thresholds of Significance

The following criteria from Appendix G of the *CEQA Guidelines* are used as thresholds of significance to determine the impacts of the proposed project as related to geology and soils. The proposed project would have a significant impact if it would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides;
2. Result in substantial soil erosion or the loss of topsoil;
3. Result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse by being located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project;
4. Create substantial direct or indirect risks to life or property by being located on expansive soil;
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

### 4.6.4 Project Impacts and Mitigation

#### 4.6.4.1 Issue 1: Seismic Hazards

*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, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides?*

#### Impact Analysis

##### Ground Rupture

As described above, the Casa Loma Segment of the San Jacinto fault bisects the project site. Therefore, potentially significant earthquake-related ground rupture and/or related effects could occur on-site. A Geotechnical Engineering Services Report was prepared by Kleinfelder in November 2017 for the AWTF/brine pond site and the proposed conveyance pipeline. The northeast corner of the AWTF and brine ponds site is situated within the San Jacinto fault zone. In accordance with the Title 27 regulations, the brine ponds and facility would be located 200 feet from this Holocene fault. Additional design considerations that could reduce the likelihood of ground rupture include the use of artificial fill and reinforced foundations and slabs to accommodate minor ground deformation. As a result, inclusion of the seismic design considerations included in the report would reduce impacts related to potential ground rupture to a less-than-significant level.

## Ground Shaking

The proposed project area is subject to potential moderate to severe ground shaking from earthquake events along major regional faults, including the Casa Loma Segment of the San Jacinto fault that bisects the project site. Accordingly, ground shaking could occur at project facilities and project development could potentially expose people and structures to moderate peak ground acceleration (PGA) levels and associated potential effects. However, the project would be required to conform with applicable regulatory/industry and code standards related to geologic hazards, including seismic ground shaking. Specifically, this would include pertinent elements of the Seismic Hazards Mapping Act, CBC/IBC, and related County standards. Associated criteria under the CBC for example, include: (1) applicable seismic loading factors for the design of facilities such as structures, foundations/slabs, pavement, and utilities; (2) remedial grading standards (e.g., removing/replacing and/or reconditioning unsuitable soils); (3) appropriate manufactured slope, retaining wall, and drainage design; and (4) use of properly engineered fill. Implementation of such measures, as described in the Geotechnical Engineering Services Report (Kleinfelder 2017) and in conformance with applicable regulatory/ industry standards, would reduce potential impacts related to seismic ground shaking hazards from implementation of the project to a less-than-significant level.

## Liquefaction

As described above, the proposed project is located in an area of moderate liquefaction potential based on the soil type and presence of shallow groundwater (CDC 2020). Liquefaction could therefore occur at project facilities, thus increasing risks associated with liquefaction events. According to the Geotechnical Engineering Services Report (Kleinfelder 2017), the area around the Alessandro Blending Station is designated as having a “High” potential for liquefaction. Due to the lack of groundwater, the potential for liquefaction induced settlement is considered relatively low and unlikely to impact the project. Settlement of up to 4 to 7 inches is possible if the groundwater elevation rises to less than 50 feet below the ground surface and there is a strong earthquake.

Standard remedial efforts to reduce liquefaction-related impacts may include: (1) removal of unsuitable soils and replacement with engineered fill per applicable regulatory/industry standards (e.g., IBC/CBC); (2) use of efforts such as deep soil mixing (i.e., introducing cement to consolidate loose soils) or subsurface structures (e.g., stone columns or piles) to provide support (i.e., by extending structures into competent underlying units); and (3) designing proposed facilities for potential settlement of liquefiable materials through means such as use of post-tensioned foundations and/or flexible couplings for pipeline connections. Specific measures would be required and approved pursuant to final grading plans, the Geotechnical Engineering Services Report (Kleinfelder 2017), and CBC requirements, prior to issuance of a grading permit. Therefore, liquefaction-related impacts would be less than significant.

## Landslides/Slope Instability

The proposed project is not located in an area where landslides are anticipated to occur since the terrain is relatively flat (City of San Jacinto 2006). In addition, according to the Geotechnical Engineering Services Report, the project area is level and away from any significant topographic relief. Therefore, impacts associated with landslides or slope failure would be less than significant.

## Tsunamis and Seiches

The project area is not located near the coast or a large body of water. As a result, hazards associated with tsunamis would not occur because the project is located approximately 40 miles inland from the Pacific Ocean. The nearest enclosed bodies of water are San Jacinto Reservoir and Diamond Valley Lake, located one mile east and six miles south of the AWTF project site, respectively. According to the Riverside County General Plan Safety Element, due to the intervening distance between the project site and nearest enclosed bodies of water, the project is not located within a seiche hazard zone (County of Riverside 2015). There would be no impact associated with tsunamis and seiches.

### Summary

Potential impacts related to seismic hazards from implementation of the proposed project would be avoided or reduced below a level of significance through incorporation of required site-specific design/construction measures from the Geotechnical Engineering Services Report (Kleinfelder 2017; see Section 2.7) and mandatory conformance with applicable regulatory/industry standard and codes, including the IBC/CBC and pertinent County criteria. Therefore, the project would not exacerbate risks or cause substantial adverse effects related to ground rupture, ground shaking, liquefaction, landslides, slope instability, tsunamis or seiches, and impacts would be less than significant.

### Mitigation Measures

Impacts related to seismic hazards would be less than significant; therefore, no mitigation is necessary.

#### 4.6.4.2 Issue 2: Erosion and Sedimentation

*Would the proposed project result in substantial soil erosion or the loss of topsoil?*

### Impact Analysis

As previously described, the potential for erosion and sedimentation within the project site is generally low. Potential erosion and sedimentation impacts would be temporarily increased during proposed construction due to activities such as excavation, grading, and removal of surface stabilizing features (e.g., vegetation or pavement), particularly between the beginning of grading/construction and the establishment of permanent cover. Generally, extensive or prolonged erosion can result in effects such as damaging or destabilizing slopes, soil loss, and deposition of eroded material in roadways or drainage structures. In addition, the off-site transport of sediment can potentially result in effects to downstream receiving water quality, such as increased turbidity and the provision of a transport mechanism for other contaminants that tend to adhere to sediment particles (e.g., hydrocarbons). Additional discussion of potential water quality effects related to erosion and sedimentation is provided in Section 4.8, *Hydrology and Water Quality*. Erosion and sedimentation are not considered to be significant long-term concerns at the project site because developed areas would be stabilized through installation of structures/hardscape as noted.

The proposed project may include the temporary stockpiling of soils on the site from excavation of the brine pond facilities. Details associated with this potential project element would be confirmed prior to issuance of a grading permit. As described in Section 4.2, *Air Quality*, the SCAQMD Rule 403, *Fugitive Dust*, the project requires the implementation of BACM during active operations capable of generating fugitive dust. Rule 403 prohibits the emissions of fugitive dust from any active operation, open storage

pile, or disturbed surface area such that the dust remains visible in the atmosphere beyond the property line of the emission source; or the dust emission exceeds 20 percent opacity, if the dust emission is the result of movement of a motorized vehicle (SCAQMD 2005).

Short-term erosion and sedimentation impacts would be addressed through conformance with NPDES standards. Specifically, this would entail conformance with the NPDES Construction General Permit. Pursuant to the discussion of construction-related water quality concerns in Section 4.8, *Hydrology and Water Quality*, this would entail implementing an approved SWPPP and related plans and BMPs, including appropriate measures to address erosion and sedimentation.

In addition, the project includes the construction of a brine management system with five interconnected evaporation ponds with a surface area of approximately 20 acres located north of the proposed AWTF. The total depth of the brine ponds would be 11 feet with a maximum operating depth of 8.3 feet. Given the distance between the maximum water level and top of the pond (2.7 feet), it is unlikely that the shallow pond water would slosh over the edge of the evaporation ponds in the event of an earthquake. Furthermore, based on the implementation of appropriate erosion and sediment control BMPs as part of, and in conformance with, an approved SWPPP and related NPDES requirements, associated potential erosion and sedimentation impacts from implementation of the project would be less than significant.

### **Summary**

Potential impacts related to erosion and sedimentation from development of the project would be avoided or reduced below a level of significance through implementation of construction and post-construction BMPs and related maintenance efforts, and mandatory conformance with applicable regulatory/industry standard and codes, including the NPDES Construction General Permit as outlined in Section 4.8, *Hydrology and Water Quality*. Impacts would be less than significant.

### **Mitigation Measures**

Impacts related to erosion and sedimentation would be less than significant; therefore, no mitigation is necessary.

#### **4.6.4.3 Issue 3: Geologic Instability**

*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 proposed project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

### **Impact Analysis**

As previously discussed above under Issue 1, Seismic Hazards, the proposed project is not located in an area where landslides are anticipated to occur since the terrain is relatively flat (City of San Jacinto 2006). In addition, according to the Geotechnical Engineering Services Report (Kleinfelder 2017), the project area is level and away from any significant topographic relief. Therefore, impacts associated with increasing landslide or lateral spreading risks would be less than significant.

According to the Geotechnical Engineer Services Report (Kleinfelder 2017), the area around the Alessandro Blending Station is designated as having a “high” potential for liquefaction. However, due to

the lack of shallow groundwater, the potential for liquefaction induced settlement is considered relatively low. Settlement of up to 4-7 inches is possible if the groundwater elevation rises to less than 50 feet below the ground surface and there is a strong earthquake. Both the conveyance pipeline and the AWTF project sites are located within an area designated as having “moderate” potential for liquefaction and “active subsidence” by Riverside County (County of Riverside 2015). However, implementation of the previously discussed standard remedial efforts and project design would reduce impacts associated with increasing liquefaction-related risk to a less-than-significant level. In addition, the project would be reviewed for compliance with the District’s Engineering Standards and Specifications, which would ensure structural resiliency.

The Geotechnical Engineering Services Report (Kleinfelder 2017) identified the presence of artificial fill (2.5 to 8.5 feet below the ground surface) underlain by alluvium (maximum boring depth of 26.5 feet below the ground surface) at the proposed conveyance pipeline site. The subsurface conditions of the proposed AWTF/brine ponds include undocumented fill (4.5-foot thickness) underlain by alluvium (maximum boring depth of 51.5 feet below the ground surface). The potential for non-seismic soil subsidence and shrinkage (hydro-consolidation) to occur at the project site does exist due to the presence of alluvium. The potential occurrence of compressible materials and localized subsidence from structural loading could result in hazards such as differential settlement (different degrees of settlement over relatively short distances), with associated potential effects to structures, pavement, foundations/footings, and utilities. As described in the Geotechnical Engineer Services Report (Kleinfelder 2017), implementation of remedial grading of the noted surficial materials, which are unusable in their current condition, would reduce potential impacts related to non-seismic soil subsidence and collapse. Therefore, with the incorporation of the measures included in the Geotechnical Engineer Services Report, construction of the project would not cause geologic instability or exacerbate related risks, and impacts would be less than significant.

### **Mitigation Measures**

Impacts related to geologic instability would be less than significant; therefore, no mitigation is necessary.

#### **4.6.4.4 Issue 4: Expansive Soil**

*Would the proposed project be located on expansive soil creating substantial direct or indirect risks to life or property?*

### **Impact Analysis**

Expansive soils could shrink and swell, causing damage to project facilities including cracking of rigid structures at the AWTF site. However, the Geotechnical Engineering Services Report (Kleinfelder 2017) determined that due to the granular nature of the near surface soils beneath the proposed facility site, the expansion potential for the near surface soils is considered low. In addition, facility design would be reviewed for compliance with the District’s Engineering Standards and Specifications, which would ensure structural resiliency. As a result, the project would not cause substantial risks related to expansive soil and impacts would be less than significant.

### **Mitigation Measures**

Impacts related to expansive soils would be less than significant; therefore, no mitigation is necessary.

#### 4.6.4.5 Issue 5: Septic Tanks

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

##### Impact Analysis

The proposed project would not include the construction or operation of septic tanks. Wastewater generated from day-to-day operation of the AWTF would not substantially increase from existing conditions at the SJVRWF due to the small number of employees needed for the facility. Construction of the project would require a temporary increase in employees and operation of the project would involve up to five permanent employees at the AWTF.

##### Mitigation Measures

No impacts to septic tanks or alternative wastewater disposal systems are anticipated to occur; therefore, no mitigation is necessary.

#### 4.6.4.6 Issue 6: Paleontological Resources

*Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

##### Impact Analysis

Paleontological resources are typically buried and therefore not apparent until revealed by excavation. As such, significant impacts to paleontological resources are often determined based on the geological formations that would be disturbed and the potential for those geologic formations to contain fossils. According to the County of Riverside's General Plan EIR, the entirety of the project site is located in an area of high paleontological sensitivity, including the Alessandro Blending Station, the AWTF/brine pond site, and the proposed conveyance pipeline (County of Riverside 2015). The project area is underlain by Quaternary alluvium and deposits with the ability to produce significant paleontological resources. The paleontological sensitivity assigned to this area by the County is High Sensitivity B (*Hb*), which connotes high sensitivity at a subsurface depth of four feet or deeper. Therefore, excavation that would exceed four feet in depth could potentially encounter fossils. Impacts during construction are considered potentially significant.

##### Mitigation Measures

The following mitigation measure would be required to address potential impacts associated with paleontological resources.

**MM-GEO-1 Paleontological Resources Mitigation and Monitoring Plan.** A Paleontological Resources Mitigation and Monitoring Plan shall be prepared prior to commencing construction activities that would exceed four feet in depth that could directly affect geologic formations with high paleontological resource sensitivity. A qualified paleontologist shall be retained to carry out and manage the plan. Fieldwork may be carried out by a qualified paleontological monitor working under the direction of the

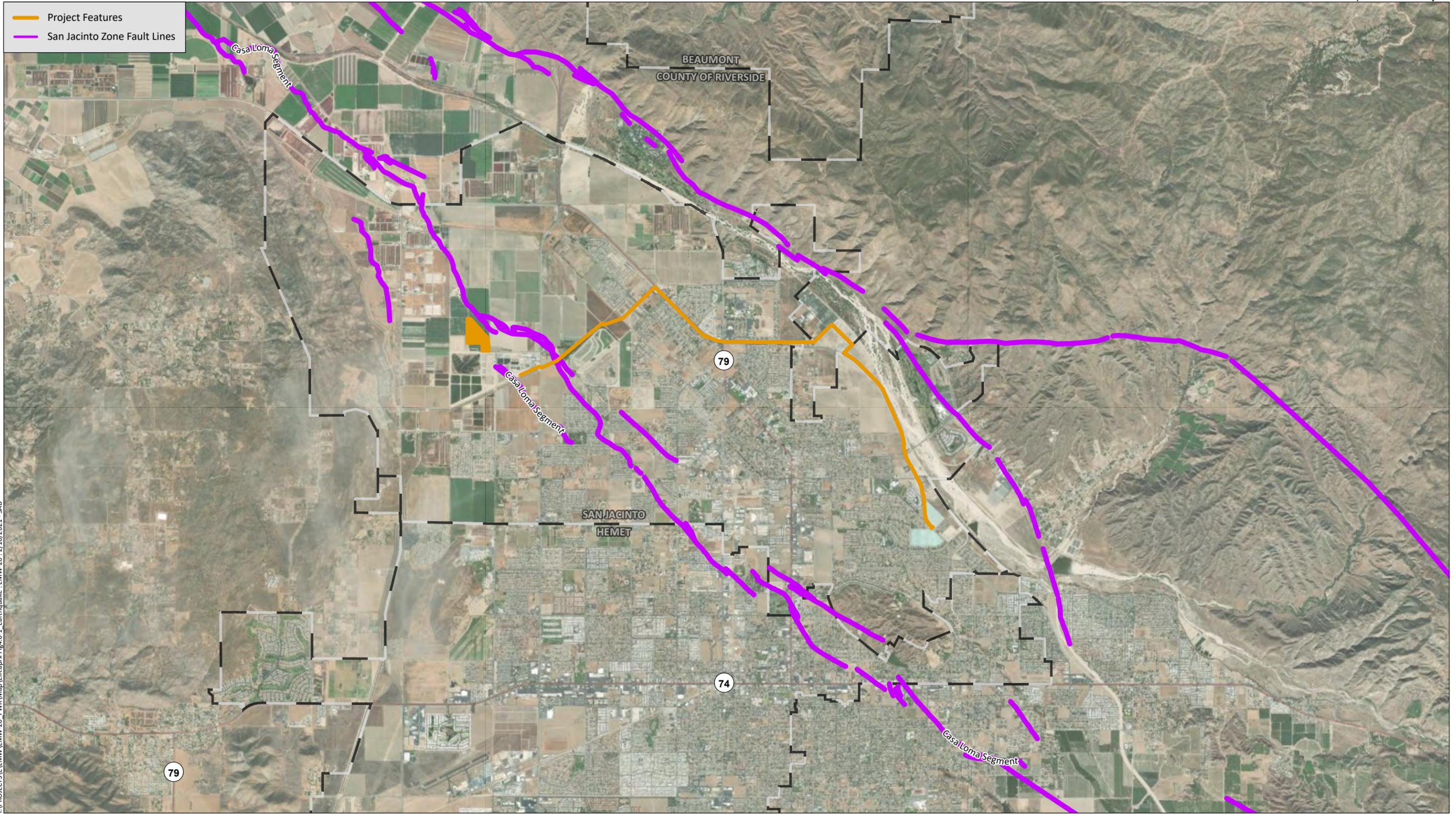
paleontologist. Components of the Paleontological Resources Mitigation and Monitoring Plan shall include, but not be limited to:

- The paleontologist shall attend the pre-grading meeting(s) to inform the grading and excavation contractors of the paleontological resource mitigation program and shall consult with them with respect to its implementation.
- The paleontological monitor shall be on site at all times during the original cutting of previously undisturbed sediments of high resource sensitivity formation at a subsurface depth of four feet or deeper to inspect cuts for contained fossils.
- If fossils are discovered, the paleontologist or monitor shall recover them. In instances where recovery requires an extended salvage time, the paleontologist or monitor shall be allowed to temporarily direct, divert, or halt ground-disturbing activities to allow recovery of fossil remains in a timely manner. Where deemed appropriate by the paleontologist or monitor, a screen-washing operation for small fossil remains shall be set up.
- Recovered fossils, along with copies of pertinent field notes, photographs, and maps, shall be deposited in a scientific institution with paleontological collections. A final summary report that outlines the results of the mitigation program shall be completed. This report shall include discussion of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.

### **Significance After Mitigation**

Impacts related to unique paleontological resources would be less than significant upon implementation of mitigation measure MM-GEO-1.

This page intentionally left blank



I:\PROJECTS\EMW\EMW-20\_PWR\Map\ER.aprx Fig. 4.6-1\_Earthquake : EMW-20 : 2/10/2021 - SAB

Source: Aerial (DigitalGlobe, 2018)

## 4.7 GREENHOUSE GAS EMISSIONS

This section addresses the potential GHG emissions impacts of the proposed project. The following discussion includes a description of existing conditions as related to GHGs, a summary of applicable regulations, and an evaluation of the proposed project's potential environmental effects associated with the generation of GHGs and conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHGs. This section is based on the *Air Quality/Greenhouse Gas Emissions Technical Report* prepared for the proposed project (HELIX 2021; Appendix B).

### 4.7.1 Existing Conditions

#### 4.7.1.1 Climate Change Overview

Global climate change refers to changes in average climatic conditions on Earth including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting sunlight in but preventing heat from escaping, thus warming the Earth's atmosphere. These gases allow solar radiation (sunlight) into the Earth's atmosphere but prevent radiative heat from escaping, thus warming the Earth's atmosphere.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with: (1) the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition.

The temperature record shows a decades-long trend of warming, with 2016 global surface temperatures ranking as the warmest year on record since 1880 and 2017 as the second warmest. The 2017 global average surface temperatures were 0.9 degree Celsius warmer than the 1951 to 1980 mean temperature (National Aeronautics and Space Administration [NASA] 2018). GHG emissions from human activities are the most significant driver of observed climate change since the mid-20<sup>th</sup> century (Intergovernmental Panel on Climate Change [IPCC] 2013). The IPCC constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The statistical models show a "high confidence" that temperature increase caused by anthropogenic GHG emissions could be kept to less than two degrees Celsius relative to pre-industrial levels if atmospheric concentrations are stabilized at about 450 parts per million (ppm) carbon dioxide equivalent (CO<sub>2</sub>e) by the year 2100 (IPCC 2014).

#### 4.7.1.2 Types of Greenhouse Gases

The GHGs defined under California's AB 32 include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>).

**Carbon dioxide.** CO<sub>2</sub> is the most important and common anthropogenic GHG. CO<sub>2</sub> is an odorless, colorless GHG. Natural sources include the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungi; evaporation from oceans; and volcanic outgassing. Anthropogenic sources of CO<sub>2</sub> include burning fuels, such as coal, oil, natural gas, and wood. Data from ice cores indicate that CO<sub>2</sub> concentrations remained steady prior to the current period for approximately 10,000 years. The atmospheric CO<sub>2</sub> concentration in 2010 was 390 ppm, 39 percent above the

concentration at the start of the Industrial Revolution (approximately 280 ppm in 1750). In May 2020, the CO<sub>2</sub> concentration was 417 ppm, a 49 percent increase since 1750 (National Oceanic and Atmospheric Administration [NOAA] 2020).

**Methane.** CH<sub>4</sub> is the main component of natural gas used in homes. Geological deposits known as natural gas fields contain methane, which is extracted for fuel. Other sources are from decay of organic material in landfills, fermentation of manure, and cattle digestion.

**Nitrous oxide.** N<sub>2</sub>O is produced by both natural and human-related sources. N<sub>2</sub>O is emitted during agricultural and industrial activities, as well as during the combustion of fossil fuels and solid waste. Primary human-related sources of N<sub>2</sub>O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic (fatty) acid production, and nitric acid production.

**Hydrofluorocarbons.** Fluorocarbons are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. Chlorofluorocarbons are nontoxic, nonflammable, insoluble, and chemically nonreactive in the troposphere (the level of air at Earth's surface). Chlorofluorocarbons were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped as required by the 1989 Montreal Protocol.

**Sulfur Hexafluoride.** SF<sub>6</sub> is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF<sub>6</sub> is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.

GHGs have long atmospheric lifetimes that range from one year to several thousand years. Long atmospheric lifetimes allow for GHG emissions to disperse around the globe. Because GHG emissions vary widely in the power of their climatic effects, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO<sub>2</sub>. For example, because methane and N<sub>2</sub>O are approximately 25 and 298 times more powerful than CO<sub>2</sub>, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 25 and 298, respectively (CO<sub>2</sub> has a GWP of 1). Estimates of GHG emissions are often presented in CO<sub>2</sub>e, which weigh each gas by its GWP. Expressing GHG emissions in CO<sub>2</sub>e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO<sub>2</sub> were being emitted. Emissions of CO<sub>2</sub>e are commonly presented in metric tons (MT; 1 MT equals approximately 2,205 pounds). The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.7-1, *Global Warming Potentials and Atmospheric Lifetimes*.

**Table 4.7-1  
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES**

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO <sub>2</sub> )	50-200	1
Methane (CH <sub>4</sub> )	12	25
Nitrous Oxide (N <sub>2</sub> O)	114	298
HFC-134a	14	1,430
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50,000	7,390
PFC: Hexafluoroethane (C <sub>2</sub> F <sub>6</sub> )	10,000	12,200
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200	22,800

Source: IPCC 2007

HFC: hydrofluorocarbon; PFC: perfluorocarbon

### 4.7.1.3 GHG Emissions Inventories

In an effort to evaluate and reduce the potential adverse impact of global climate change, international, state, and local organizations have conducted GHG inventories to estimate their levels of GHG emissions and removals. The following summarizes the results of these global, national, state, countywide, and local GHG inventories.

For 2016, total GHG emissions worldwide were estimated at 49,358 million metric tons (MMT) CO<sub>2</sub>e (World Resources Institute 2020). The U.S. contributed the second largest portion of GHG emissions (behind China) at 12 percent of global emissions, with 5,833 MMT CO<sub>2</sub>e in 2016. On a national level in 2013, approximately 27 percent of GHG emissions are associated with transportation and about 31 percent are associated with electricity generation (USEPA 2015).

### California GHG Emissions

CARB performs statewide GHG inventories. The inventory is divided into six broad sectors: agriculture and forestry, commercial, electricity generation, industrial, residential, and transportation. Emissions are quantified in MMT CO<sub>2</sub>e. Table 4.7-2, *California GHG Emissions by Sector*, shows the estimated statewide GHG emissions for the years 1990, 2000, 2010, and 2017.

**Table 4.7-2  
CALIFORNIA GHG EMISSIONS BY SECTOR  
(MMT CO<sub>2</sub>e)**

Sector	1990	2000	2010	2017
Agriculture and Forestry	23.6 (5%)	31.6 (7%)	34.3 (8%)	32.4 (8%)
Commercial	14.4 (3%)	14.2 (3%)	20.1 (4%)	23.3 (5%)
Electricity Generation	110.6 (26%)	105.3 (22%)	90.6 (20%)	62.6 (15%)
Industrial	103.0 (24%)	104.6 (22%)	100.9 (23%)	101.1 (24%)
Residential	29.7 (7%)	31.0 (7%)	31.3 (7%)	30.4 (7%)
Transportation	150.7 (35%)	183.9 (39%)	170.2 (38%)	174.3 (41%)
Unspecified Remaining	1.3 (<1%)	1.2 (<1%)	0.8 (<1%)	-
<b>Total</b>	<b>433.3</b>	<b>471.7</b>	<b>448.1</b>	<b>424.1</b>

Source: CARB 2007 and CARB 2019

MMT = million metric tons; CO<sub>2</sub>e = carbon dioxide equivalent

As shown in Table 4.7-2, statewide GHG emissions totaled 433 MMT CO<sub>2</sub>e in 1990, 472 MMT CO<sub>2</sub>e in 2000, 448 MMT CO<sub>2</sub>e in 2010, and 424 MMT CO<sub>2</sub>e in 2017. Transportation-related emissions consistently contribute the most GHG emissions, followed by industrial emissions and electricity generation.

### Riverside County GHG Emissions

The County’s Climate Action Plan (CAP) Update provides net 2017 emissions of CO<sub>2</sub>e associated with the unincorporated areas of the County as broken down by emissions category. The unincorporated areas of Riverside County together emitted 4,905,518 MT CO<sub>2</sub>e in 2017. The largest portion of Riverside County’s 2017 emissions were from transportation (36 percent), followed by agriculture (34 percent), and electricity and natural gas use in buildings (24 percent). Emissions by category are shown in Table 4.7-3, *2017 County-wide GHG Emissions by Source*.

**Table 4.7-3**  
**2017 COUNTY-WIDE GHG EMISSIONS BY SOURCE**

Emissions Category	MT CO <sub>2</sub> e	Percentage of Total
On-road Transportation	1,766,784	36%
Agriculture	1,670,954	34%
Energy (Electricity and Natural Gas)	1,188,138	24%
Solid Waste	204,365	4%
Water and Wastewater	44,606	1%
Aviation	26,786	1%
Off-road Sources	3,883	<1%
<b>Total</b>	<b>4,905,518</b>	<b>100%</b>

Source: County 2019

MT = metric tons; CO<sub>2</sub>e = carbon dioxide equivalent

The Western Riverside Council of Governments (WRCOG) prepared an emissions inventory as part of their Subregional CAP. In 2010, Subregional CAP cities emitted approximately 5,834,400 MT of GHG emissions. The breakdown of emissions by sector is shown below in Table 4.7-4, *Western Riverside Council of Governments GHG Emissions by Sector*. With the exception of transportation, the sectors reported in the CAP inventory do not correspond directly to those reported in the statewide inventory.

**Table 4.7-4**  
**WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS 2010 GHG EMISSIONS BY SECTOR**

Sector	MT CO <sub>2</sub> e	Percentage of Total
Transportation	3,317,387	57%
Commercial/Industrial Energy	1,226,479	21%
Residential Energy	1,167,843	20
Solid Waste	112,161	2%
Wastewater	10,531	<1%
<b>Total</b>	<b>5,834,400</b>	<b>100%</b>

Source: WRCOG 2014

MT = metric tons; CO<sub>2</sub>e = carbon dioxide equivalent

Similar to the statewide and County-wide emissions, transportation-related GHG emissions for the Subregional CAP cities were the greatest contributor, followed by energy-related GHG emissions.

## **4.7.2 Regulatory Framework**

### **4.7.2.1 Federal**

#### **Federal Clean Air Act**

The U.S. Supreme Court ruled on April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* that CO<sub>2</sub> is an air pollutant, as defined under the CAA, and that the USEPA has the authority to regulate emissions of GHGs. The USEPA announced that GHGs (including CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC, and SF<sub>6</sub>) threaten the public health and welfare of the American people.

#### **Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards**

The USEPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) worked together on developing a national program of regulations to reduce GHG emissions and to improve fuel economy of light-duty vehicles. On April 1, 2010, the USEPA and NHTSA announced a joint Final Rulemaking establishing standards for 2012 through 2016 model year vehicles. This was followed up on October 15, 2012, when the agencies issued a Final Rulemaking with standards for model years 2017 through 2025. On August 2, 2018, the agencies released a notice of proposed rulemaking—the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks. The purpose of the SAFE Vehicles Rule is “to correct the national automobile fuel economy and GHG emissions standards to give the American people greater access to safer, more affordable vehicles that are cleaner for the environment.” The direct effect of the rule is to eliminate the standards that were put in place to gradually raise average fuel economy for passenger cars and light trucks under test conditions from 37 miles per gallon in 2020 to 50 miles per gallon in 2025. By contrast, the new SAFE Vehicles Rule freezes the average fuel economy level standards indefinitely at the 2020 levels. The new SAFE Vehicles Rule also results in the withdraw of the waiver previously provided to California for that State's GHG and zero emissions vehicle (ZEV) programs under section 209 of the CAA.

### **4.7.2.2 State**

#### **California Code of Regulations, Title 24, Part 6**

CCR Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in GHG emissions.

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest update to the Title 24 standards occurred in 2019 and went into effect on January 1, 2020. The Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the

residential standards include improvements for attics, walls, water heating, and lighting. The standards are divided into three basic sets. First, there is a basic set of mandatory requirements that apply to all buildings. Second, there is a set of performance standards – the energy budgets – that vary by climate zone (of which there are 16 in California) and building type; thus, the standards are tailored to local conditions. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that are basically a recipe or a checklist compliance approach.

### **California Green Building Standards Code**

The California Green Building Standards Code (CALGreen; CCR Title 24, Part 11) is a code with mandatory requirements for new residential and nonresidential buildings (including industrial buildings) throughout California. The code is Part 11 of the California Building Standards Code in Title 24 of the CCR. The current 2019 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings went into effect on January 1, 2020.

The development of CALGreen is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

CALGreen contains requirements for stormwater control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

### **Executive Order S-3-05**

On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. EOs are not laws and can only provide the governor's direction to state agencies to act within their authority. Legislation is required to enact the goals of EO S-3-05 and establish a framework for statewide implementation. AB 32, described below, mandates the 2020 GHG reduction goals of EO S-3-05. The 2050 GHG reduction goal of EO S-3-05 has not been enacted by any legislation and remains only a goal of the EO.

### **Executive Order B-30-15**

On April 29, 2015, EO B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG emission reduction targets with those of leading international governments, including the 28-nation European Union. California is on track to meet or exceed the target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050. Senate Bill (SB) 32, described below, mandates the 2030 GHG reduction goals of EO B-30-15.

## **Assembly Bill 32 – Global Warming Solutions Act of 2006**

The California Global Warming Solutions Act of 2006 (AB 32 and Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599), widely known as AB 32, requires that the CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions. AB 32 enacts the goals of EO S-3-05.

### **Senate Bill 32**

SB 32 (Amendments to the California Global Warming Solutions Action of 2006) extends California’s GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State’s continuing efforts to pursue the long-term target expressed in EO B-30-15 of 80 percent below 1990 emissions levels by 2050.

### **Assembly Bill 197**

A condition of approval for SB 32 was the passage of AB 197. AB 197 requires that CARB consider the social costs of GHG emissions and prioritize direct reductions in GHG emissions at mobile sources and large stationary sources. AB 197 also gives the California legislature more oversight over CARB through the addition of two legislatively appointed members to the CARB Board and the establishment a legislative committee to make recommendations about CARB programs to the legislature.

## **Assembly Bill 1493 – Vehicular Emissions of Greenhouse Gases**

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve “the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State.” On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California’s enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to merge its rules with the federal CAFE rules for passenger vehicles (CARB 2013). In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. However, as described previously, the adoption of the new SAFE Vehicles Rule results in the withdrawal of the waiver previously provided to California for that State’s GHG and ZEV programs, freezing the average fuel economy level standards indefinitely at the 2020 levels.

### **Assembly Bill 75**

AB 75 was passed in 1999 and mandates state agencies to develop and implement an integrated waste management plan to reduce GHG emissions related to solid waste disposal. In addition, the bill mandates that community service districts providing solid waste services report the disposal and diversion information to the appropriate city, county, or regional jurisdiction. The bill requires diversion

of at least 50 percent of the solid waste from landfills and transformation facilities, and submission to the California Department of Resources Recycling and Recovery (CalRecycle; formerly known as California Integrated Waste Management Board) of an annual report describing the diversion rates.

### **Assembly Bill 341**

The state legislature enacted AB 341 (California PRC Section 42649.2), increasing the diversion target to 75 percent statewide. AB 341 requires all businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. The final regulation was approved by the Office of Administrative Law on May 7, 2012 and went into effect on July 1, 2012.

### **Executive Order S-01-07**

EO S-01-07, signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a LCFS for transportation fuels be established for California and directs CARB to determine whether a LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010. Although challenged in 2011, the Ninth Circuit reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. CARB is therefore continuing to implement the LCFS statewide.

### **Senate Bill 350**

Approved by Governor Brown on October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard eligible resources, including solar, wind, biomass, and geothermal. In addition, large utilities are required to develop and submit Integrated Resource Plans to detail how each entity will meet their customers resource needs, reduce greenhouse gas emissions, and increase the use of clean energy.

### **Senate Bill 100**

Approved by Governor Brown on September 10, 2018, SB 100 increases the portion of California's electricity that must come from renewable sources from 50 percent (as mandated by SB 350) to 60 percent by 2030. The bill also establishes a goal of 100 percent of California's electricity sourced from renewable energy and other zero net GHG emissions resources (such as nuclear power) by 2045.

### **Senate Bill 97 – CEQA: Greenhouse Gas Emissions**

SB 97 required the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, including but not limited to, effects associated with transportation or energy consumption. The Resources Agency certified and adopted the guidelines on December 31, 2009. The OPR guidance states that the lead agency can rely on qualitative or other performance-based standards for estimating the significance of GHG emissions, although the new *CEQA Guidelines* did not establish a threshold of significance.

## **Senate Bill 375**

SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt an SCS, which allocates land uses in the MPOs' RTP. Qualified projects consistent with an approved SCS or Alternative Planning Strategy categorized as "transit priority projects" would receive incentives to streamline CEQA processing.

## **California Air Resources Board: Climate Change Scoping Plan**

In December 2008, CARB adopted its first version of its Climate Change Scoping Plan (Scoping Plan), which contained the main strategies California will implement to achieve the mandate of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program.

On December 14, 2017, CARB adopted the 2017 Climate Change Scoping Plan (2017 Scoping Plan), which lays out the framework for achieving the mandate of SB 32 (2016) to reduce statewide GHG emissions to at least 40 percent below 1990 levels by the end of 2030 (CARB 2017).

The 2017 Scoping Plan includes guidance to local governments in Chapter 5, including plan-level GHG emissions reduction goals and methods to reduce communitywide GHG emissions. In its guidance, CARB recommends that "local governments evaluate and adopt robust and quantitative locally-appropriate goals that align with the statewide per capita targets and the State's sustainable development objectives and develop plans to achieve the local goals." CARB further states that "it is appropriate for local jurisdictions to derive evidence-based local per capita goals [or some other metric] that the local jurisdiction deems appropriate, such as mass emissions or per service population, based on local emissions sectors and population projections that are consistent with the framework used to develop the statewide per capita targets" (CARB 2017).

### **4.7.2.3 Local**

#### **Southern California Association of Governments**

SCAG, of which the City of San Jacinto is a member agency, adopted the 2016-2040 RTP/SCS in April 2016. The RTP/SCS is a State- and federally required long-range plan for regional transportation and land use. The plan anticipates expenditures of \$556.5 billion—of which \$275.5 billion is budgeted for operations and maintenance of the regional transportation system and another \$246.6 billion is reserved for transportation capital improvements. It is anticipated that implementation of the RTP/SCS would result in an eight percent reduction in GHG emissions per capita by 2020, an 18 percent reduction by 2035 and a 21 percent reduction by 2040, compared with 2005 levels (SCAG 2016).

#### **County of Riverside**

As part of the General Plan Air Quality Element, the County of Riverside adopted a CAP in 2015. The CAP "establishes goals and policies that incorporate environmental responsibility into its daily management of residential, commercial and industrial growth, education, energy and water use, air quality,

transportation, waste, education, economic development and open space and natural habitats to further their commitment.” The CAP identified an emissions reduction target for 2020.

The 2019 CAP Update was approved on December 17, 2019. The 2019 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 addresses cumulative GHG emissions, presents reduction measures that achieve reduction targets, and provides an implementation plan to implement the reduction measures.

### **Western Riverside Council of Governments**

The twelve cities of the WRCOG, which includes the City of San Jacinto, adopted a Subregional Climate Action Plan (Subregional CAP) in September 2014. The Subregional CAP provides a 2010 baseline inventory of GHG emissions for the subregion cities of 5,834,400 MT of CO<sub>2</sub>e. Approximately 57 percent of the GHG inventory was from transportation sources, 21 percent from commercial/industrial energy use, 20 percent from residential energy use, and the remaining from wastewater and solid waste sources. The Subregional CAP established a target of reducing subregional GHG emissions 15 percent below 2010 levels by 2020 and 49 percent below 2010 levels by 2035. To achieve the 2020 reduction target, the Subregional CAP identifies 14 State and regional measures, 3 local energy sector measures, 18 local transportation sector measures, and 2 solid waste sector measures. The Subregional CAP does not identify GHG reduction measures for achieving goals beyond 2020 (WRCOG 2014). The Subregional CAP does not include thresholds for determining the significance of GHG emissions for new land development, nor does it include a checklist or other methodology for determining consistency of new development with the goals and measures in the Subregional CAP. Since adoption of the original Subregional CAP, WRCOG received grant funding from the California Department of Transportation (Caltrans) Sustainable Transportation Planning Grant Program to prepare an update and expansion to the Subregional CAP, which is termed the CAP Update. The CAP Update will include a comprehensive update to GHG inventories and GHG emissions reduction strategies for all sectors and will establish GHG targets for the year 2050 for WRCOG member jurisdictions.

#### **4.7.3 Thresholds of Significance**

GHG impacts are the result of combined worldwide emissions over many years, and additional development would incrementally contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to contribute noticeably to a change in the global average temperature. However, the combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts. Therefore, GHG emissions impacts are only evaluated cumulatively.

The following criteria from Appendix G of the *CEQA Guidelines* are used as thresholds of significance to determine the impacts of the proposed project as related to GHG emissions. The proposed project would have a significant impact if it would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

There are no established federal, state, or local quantitative thresholds, including in the County's CAP Update and WRCOG's Subregional CAP, applicable to the project to determine the quantity of GHG emissions that may have a significant effect on the environment. CARB, the SCAQMD, the County, WRCOG, and various cities and agencies have proposed, or adopted on an interim basis, thresholds of significance that require the implementation of GHG emission reduction measures. The proposed project is best categorized as an industrial project and is within the jurisdiction of the SCAQMD; therefore, for this analysis, the most appropriate screening threshold for determining GHG emissions impacts is the SCAQMD proposed Tier 3 screening threshold for industrial projects of 10,000 MT CO<sub>2</sub>e (SCAQMD 2010). The SCAQMD's Tier 3 screening threshold was developed to meet the year 2020 statewide GHG emissions targets as mandated by AB 32 and implemented by the CARB Scoping Plan. The SCAQMD has not proposed revised thresholds to account for GHG reduction targets beyond 2020. Accordingly, a threshold reduced by 4.98 percent for each year between 2020 and 2030 would meet the mandates of SB 32 for a 40 percent reduction in emissions by 2030. A threshold then reduced by 5.35 percent for each year between 2030 and 2050 would meet the mandates of SB 32 for an 80 percent reduction in emissions by 2050. The first full year of operation for Phase I of the project is anticipated to be 2024; therefore, a threshold of 8,152 MT CO<sub>2</sub>e per year for Phase I is used in this analysis. The first full year of operation for Phase II of the project is anticipated to be 2035; therefore, a threshold of 4,558 MT CO<sub>2</sub>e per year for Phase II is used.

#### **4.7.4 Project Impacts and Mitigation**

##### **4.7.4.1 Issue 1: Greenhouse Gas Emissions**

*Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

#### **Impact Analysis**

The project would generate GHGs in the short-term during construction and the long-term during operation. The project's emissions were estimated using CalEEMod Version 2016.3.2 (SCAQMD 2017b). As applicable to this analysis, the model calculates emissions of the GHG emissions for CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. For the full scope of methodology and assumptions used in this analysis, refer to Appendix B.

Emissions of GHGs are presented in MT CO<sub>2</sub>e, which is a metric used to compare the emissions from various GHGs based on their global warming potential. The CO<sub>2</sub>e of a gas is determined by multiplying the tons of that gas by its global warming potential.

#### **Phase I Construction**

The project's Phase I construction would generate GHG emissions associated with exhaust from heavy off-road construction equipment, on-road haul trucks delivering material to and from the work sites, and construction worker vehicle trips to and from the work sites. The primary GHG emissions would be CO<sub>2</sub> from gasoline and diesel combustion, with more limited vehicle tailpipe emissions of N<sub>2</sub>O and CH<sub>4</sub>. Total GHG emissions during Phase I project construction are presented in Table 4.7-5, *Estimated Phase I Construction GHG Emissions*. As shown in Table 4.7-5, the project would result in GHG emissions from Phase I construction of 1,570 MT CO<sub>2</sub>e. Amortized over 30 years, the proposed construction activities would contribute approximately 52 MT CO<sub>2</sub>e emissions per year.

**Table 4.7-5  
 ESTIMATED PHASE I CONSTRUCTION GHG EMISSIONS**

<b>Year</b>	<b>Emissions (MT CO<sub>2</sub>e)</b>
2022	1,026
2023	544
<b>Total Phase I Construction Emissions</b>	<b>1,570</b>
Amortized Construction Emissions <sup>2</sup>	52

Source: HELIX 2021

<sup>1</sup> The total presented is the sum of the unrounded values.

<sup>2</sup> Construction emissions are amortized over 30 years.

MT = metric tons; CO<sub>2</sub>e = carbon dioxide equivalent

### Phase I Operations

Operational sources of emissions from the project include: (1) area sources (landscape equipment and consumer products); (2) energy use (electricity); (3) vehicle use; (4) stationary sources (emergency generators); (5) solid waste generation; and (6) indoor and outdoor water use. The project would achieve an annual recharge of up to 4,000 acre-feet of potable water during Phase I, which would reduce reliance on imported water, thereby reducing GHG emissions associated with the conveyance of imported water. The project’s GHG emissions estimates are presented below both with and without this savings.

#### *Area Sources*

Area sources include GHG emissions that would occur from the use of landscaping equipment and consumer products. Landscape equipment would occasionally be used for maintenance of formal landscaping at the AWTF site and likely for weed abatement near the brine management system. Due to the limited amount of equipment and time required for maintenance, area source GHG emissions would be negligible.

#### *Energy Use*

Projects that increase electricity consumption also result in an indirect increase in GHG emissions. The off-site generation of electricity through the combustion of fossil fuels typically yields CO<sub>2</sub>, and to a much smaller extent, CH<sub>4</sub> and N<sub>2</sub>O. Most of the project’s electricity consumption would be associated with the advanced water treatment process equipment at the Process Center of the AWTF. Electricity would also be used, to a much lesser extent, for uses such as lighting and HVAC systems at the Control Center of the AWTF. The annual GHG emissions from energy usage are estimated to be 1,369 MT CO<sub>2</sub>e per year.

#### *Vehicular (Mobile) Sources*

The project’s mobile sources of GHG emissions would occur from an average of 10 daily vehicle trips to the AWTF site, accounting for up to five staff members, occasional visitor tours, and 10 chemical deliveries per month. The project would result in emissions of 21 MT CO<sub>2</sub>e per year from mobile sources.

### *Stationary Sources (Emergency Generators)*

Two diesel-powered standby/emergency generators would be used for backup power during electric power failures. Generator emissions were estimated using CalEEMod based on the monthly testing frequency and duration, as well as the power output of the engines. The project would result in emissions of 3 MT CO<sub>2</sub>e from stationary sources.

### *Solid Waste*

Solid waste generated by the project would also contribute to GHG emissions. Treatment and disposal of solid waste produces emissions of methane. The project is estimated to result in emissions of 9 MT CO<sub>2</sub>e from solid waste.

### *Water Use*

Water-related GHG emissions are from the conveyance and treatment of water. The California Energy Commission's 2006 Refining Estimates of Water-Related Energy Use in California defines average energy values for water in southern California. These values are used in CalEEMod to establish default water related emission factors. Model default indoor and outdoor water usage was used. A 20 percent outdoor water use reduction per CALGreen requirements was also incorporated into the model. The Project's annual GHG emissions from water sources are estimated to be 27 MT CO<sub>2</sub>e.

### *Potable Water Savings*

By providing a local source of potable water, the project would reduce reliance on imported water, thereby reducing GHG emissions associated with the energy used to pump water from the Sacramento-San Joaquin Bay Delta in northern California or from the Colorado River. The provision of potable water consumes large amounts of energy associated with regional source and conveyance, treatment, and local distribution. This type of energy use is known as embedded energy. While the project would result in a reduction in energy used for regional import, energy would still be required to locally pump water produced by the project that would be recharged into the groundwater table. As such, the electricity intensity factor associated with local pumping was subtracted from the electricity intensity factors for import to achieve a factor that represents the net savings electricity intensity factor associated with the provision of potable water that would result from the project. The electricity intensity factors are provided by the CEC's *California's Water – Energy Relationship Final Staff Report* (CEC 2005).

To then calculate GHG emissions associated with this embedded energy, the electricity intensity factors are multiplied by the utility intensity factors for the GHGs and are classified as indirect emissions. The GHG emissions associated with water use are calculated by multiplying the embedded energy in a gallon of potable water by the total number of gallons provided and then by the electricity generation GHG emissions factors. It is estimated that Phase I of the project would achieve a potable water recharge capacity of 4,000 AFY. After factoring in a minor loss from evaporation, Phase I of the project is estimated to save, and therefore reduce import of, 3,912 acre-feet, or 1,275 million gallons, of potable water per year. This would result in a GHG emissions reduction of approximately 2,063 MT CO<sub>2</sub>e per year.

Emissions

Table 4.7-6, *Total Estimated Phase I Operational GHG Emissions*, includes the total annual emissions for Phase I operation of the project. The emissions include the amortized annual Phase I construction emissions anticipated for the project. Without considering potable water savings, the project would result in annual emissions of 1,480 MT CO<sub>2</sub>e during Phase I operations. With potable water savings, the project would result in a net reduction in emissions of 583 MT CO<sub>2</sub>e per year. Under both scenarios, the project’s Phase I operational emissions would be below the annual threshold of 8,152 MT CO<sub>2</sub>e calculated for year 2024. Impacts would be less than significant.

**Table 4.7-6  
 TOTAL ESTIMATED PHASE I OPERATIONAL GHG EMISSIONS**

Emission Sources	Emissions (MT CO <sub>2</sub> e)
Area Sources	0
Energy Sources	1,369
Vehicular (Mobile) Sources	21
Stationary Sources	3
Solid Waste Sources	9
Water Sources	27
Phase I Operational Subtotal	1,428
Phase I Construction (amortized over 30 years)	52
<b>Total Phase I Operational Emissions without Potable Water Savings</b>	<b>1,480</b>
Phase I Potable Water Savings	<b>2,063</b>
<b>Total Phase I Operational Emissions with Potable Water Savings</b>	<b>(583)</b>
<b>Calculated Year 2024 Threshold</b>	<b>8,152</b>
<b>Exceed Threshold?</b>	<b>No</b>

Source: HELIX 2021

Note: Totals may not add up exactly due to rounding.

MT = metric tons; CO<sub>2</sub>e = carbon dioxide equivalent

**Phase II Construction**

As with Phase I construction, the project’s Phase II construction would generate GHG emissions associated with exhaust from heavy off-road construction equipment, on-road haul trucks delivering material to and from the work sites, and construction worker vehicle trips, although to a much lesser extent than Phase I construction. Total GHG emissions during the project’s Phase II construction are presented in Table 4.7-7, *Estimated Phase II Construction GHG Emissions*. As shown in Table 4.7-7, the project would result in GHG emissions from Phase II construction of 517 MT CO<sub>2</sub>e. Amortized over 30 years, the proposed construction activities would contribute approximately 17 MT CO<sub>2</sub>e emissions per year.

**Table 4.7-7  
ESTIMATED PHASE II CONSTRUCTION GHG EMISSIONS**

<b>Year</b>	<b>Emissions (MT CO<sub>2</sub>e)</b>
2034	517
<b>Total Phase I Construction Emissions</b>	<b>517</b>
Amortized Construction Emissions <sup>2</sup>	17

Source: HELIX 2021

<sup>1</sup> The total presented is the sum of the unrounded values.

<sup>2</sup> Construction emissions are amortized over 30 years.

MT = metric tons; CO<sub>2</sub>e = carbon dioxide equivalent

### Phase II Operations

As with Phase I operations, sources of emissions from the project’s Phase II operations would include area sources, energy use, vehicle use, stationary sources, solid waste generation, and water use. Of these sources, area source emissions and stationary source emissions are not anticipated to increase. The primary increase in emissions would be associated with the increased electricity used for the increased treatment capacity of Phase II. Although Phase II would involve a slight increase in vehicle trips from increased chemical deliveries, emissions are calculated to decrease due to anticipated stricter emissions regulations for vehicles in the future. Solid waste source and water source emissions would slightly increase.

Phase II of the project is estimated to achieve an additional potable water recharge capacity of 11,000 AFY, for a total Phase II recharge capacity of 15,000 AFY. After factoring in a minor loss from evaporation, Phase II of the project is estimated to save, and therefore reduce import of, 14,670 acre-feet, or 4,780 million gallons, of potable water per year. This would result in a GHG emissions reduction of approximately 7,736 MT CO<sub>2</sub>e per year.

Table 4.7-8, *Total Estimated Phase II Operational GHG Emissions*, includes the total annual emissions for Phase II operation of the project. The emissions include the amortized annual Phase I and Phase II construction emissions anticipated for the project. Without considering potable water savings, the project would result in annual emissions of 4,006 MT CO<sub>2</sub>e during Phase II operations. With potable water savings, the project would result in a net reduction in emissions of 3,730 MT CO<sub>2</sub>e per year. Under both scenarios, the project’s Phase II operational emissions would be below the annual threshold of 4,558 MT CO<sub>2</sub>e calculated for year 2035. Impacts would be less than significant.

**Table 4.7-8  
TOTAL ESTIMATED PHASE II OPERATIONAL GHG EMISSIONS**

<b>Emission Sources</b>	<b>Emissions (MT CO<sub>2</sub>e)</b>
Area Sources	0
Energy Sources	3,861
Vehicular (Mobile) Sources	19
Stationary Sources	3
Solid Waste Sources	14
Water Sources	40
Phase II Operational Subtotal	3,937
Phase I Construction (amortized over 30 years)	52
Phase II Construction (amortized over 30 years)	17
<b>Total Phase II Operational Emissions without Potable Water Savings</b>	<b>4,006</b>
Phase II Potable Water Savings	<b>7,736</b>
<b>Total Phase II Operational Emissions with Potable Water Savings</b>	<b>(3,730)</b>
<b>Calculated Year 2035 Threshold</b>	<b>4,558</b>
<b>Exceed Threshold?</b>	<b>No</b>

Source: HELIX 2021

Note: Totals may not add up exactly due to rounding.

MT = metric tons; CO<sub>2</sub>e = carbon dioxide equivalent

The proposed project would not generate GHGs, either directly or indirectly, that may have a significant impact on the environment during construction or operation. Impacts would be less than significant.

### **Mitigation Measures**

Impacts related to GHG emissions would be less than significant; therefore, no mitigation is necessary.

#### **4.7.4.2 Issue 2: Conflict with Plans or Policies**

*Would the proposed project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?*

### **Impact Analysis**

There are numerous State plans, policies, and regulations adopted for the purpose of reducing GHG emissions. The principal overall State plan and policy is AB 32 and SB 32, the California Global Warming Solutions Act of 2006. The quantitative goal of AB 32 was to reduce GHG emissions to 1990 levels by 2020. SB 32 requires further reductions of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. Statewide plans and regulations are being implemented at the statewide level, and compliance on a project-specific level is not addressed. Further, a number of prominent statewide plans and regulations (e.g., AB 1493 and the LCFS), as well as regional plans (e.g., SCAG's RTP/SCS), aimed at reducing GHG emissions focus on reducing transportation source emissions. The proposed project would generate minimal VMT and would therefore not conflict with such policies and regulations.

As previously discussed, the increase in GHG emissions would be less than the reduced SCAQMD significance thresholds being applied to this analysis in accordance with SB 32 reduction targets. In addition, the project would implement a potable water replenishment program to provide the District's service area with a local, sustainable, and reliable drinking water supply. By providing a local, reliable source of potable water, the project would reduce GHG emissions associated with embedded energy required for the conveyance of water from the Sacramento-San Joaquin Bay Delta in northern California or from the Colorado River. This would aid in meeting the County's CAP Update and WRCOG's Subregional CAP GHG emissions reductions targets.

Given the aforementioned, implementation of the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This would represent a less-than-significant impact.

### **Mitigation Measures**

Impacts related to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions would be less than significant; therefore, no mitigation is necessary.

This page intentionally left blank

## 4.8 HYDROLOGY AND WATER QUALITY

The section addresses the potential impacts of the proposed project to hydrology and water quality. The following discussion includes a description of existing conditions as related to hydrology and water quality, a summary of applicable regulations, and an evaluation of the proposed project's potential environmental effects associated with hydrology and water quality.

### 4.8.1 Existing Conditions

#### 4.8.1.1 Hydrology Setting

##### Surface Water

##### San Jacinto Valley Hydrologic Unit

The proposed project is located in the San Jacinto Valley Hydrologic Unit (HU), which incorporates approximately 700 square miles, including the San Jacinto River watershed between the southeastern boundary of the Santa Ana Basin and Lake Elsinore. Surface drainage in the San Jacinto Valley HU flows generally to the west and south via the San Jacinto River, although drainage patterns vary locally with topography. The San Jacinto River normally terminates at Lake Elsinore, which has no outflow, although in exceptionally large storms or extended wet periods excess flows may enter Temescal Wash downstream of Canyon Reservoir. The San Jacinto Valley HU is divided into three smaller hydrologic areas (HAs) on the basis of local drainage characteristics, including Perris (802.10), San Jacinto (802.20), and Elsinore (802.30) HA (RWQCB 1986; 1995). The proposed project falls within the San Jacinto HA. Hydrologic areas within the San Jacinto Valley HU are further divided into Hydrologic Subareas (HSAs). The proposed project is located within the Gilman Hot Springs HSA (802.21; see Figure 4.8-1, *San Jacinto Valley Hydrologic Unit*).

##### San Jacinto River Watershed

The proposed project is located in the San Jacinto River Watershed which is located on the western flanks of the San Jacinto Mountains. The watershed includes several lakes and reservoirs (Lake Elsinore, Canyon Lake, Lake Perris, Lake Hemet, and Mystic Lake). Major tributaries include Bautista Creek, Poppet Creek, Potrero Creek, Perris Valley Drain and Salt Creek. The San Jacinto River is formed at the western base of the San Jacinto Mountains by the confluence of its North and South forks. The South Fork flows from near Santa Rosa Summit, through Pine Meadow and Garner Valley to Lake Hemet. Downstream of the dam, the South Fork joins the North Fork east of the town of Valle Vista near Highway 74, and the main stem of the San Jacinto River continues northwest until it discharges into Mystic Lake, a couple of miles east of Lake Perris. Overflow from the river then flows southwest, passing under Ramona Expressway and I-215, and through Railroad Canyon to Canyon Lake. Downstream of Canyon Lake, the river continues flowing roughly west southwest through the canyon through the Temescal Mountains for about three miles until it drains into Lake Elsinore. The lake usually has no outflow other than evaporation, but in years of heavy rainfall it overflows into Temescal Creek, which flows northwest to the Santa Ana River in Corona, California.

##### Regional Groundwater Setting

The proposed project is located within the San Jacinto Groundwater Basin (see Figure 4.8-2, *San Jacinto Groundwater Basin*). The San Jacinto Groundwater Basin consists primarily of alluvial and fluvial

sedimentary deposits containing coarse-grained sand and gravel deposits as well as finer-grained silt and clay layers. The alluvial aquifer valleys are bounded by lower permeability, primarily crystalline and sedimentary rocks of the San Jacinto Mountains to the east, the San Timoteo Badlands to the northeast, the Box Mountains to the north, the Santa Rosa Hills and Bell Mountains to the south, and unnamed hills west of Mead Valley and Perris. The basin is essentially closed, without significant groundwater inflow or outflow to or from other groundwater basins. Several bedrock hills and ranges are present within the basin, separating the alluvial aquifer into different “compartments” or subareas. There are eight Groundwater Management Zones covering these subareas within the larger San Jacinto Groundwater Basin. The project area is located within the Hemet North and San Jacinto Upper Pressure Area Management Zone, in the eastern portion of the basin (see Figure 4.8-3, *Groundwater Management Zones*).

#### **4.8.1.2 Water Quality**

##### **Surface Water Quality**

Existing water quality data from the San Jacinto River Watershed includes quantitative and qualitative monitoring and/or testing results from sources such as the CWA Section 303(d) impaired water evaluations conducted by the SWRCB and RWQCB, urban runoff monitoring and water quality improvement plans associated with the NPDES Municipal Permit (described below under Regulatory Framework), and the State Surface Water Ambient Monitoring Program (SWAMP). An overview of selected monitoring and reporting data is provided below.

##### **Clean Water Act 303(d) List**

As part of the requirements of the Clean Water Act, beneficial uses for surface waters must be identified in the Santa Ana RWQCB’s Water Quality Control Plan for the Santa Ana River Basin (Basin Plan). Water bodies in the San Jacinto River Watershed that have been placed on the CWA Section 303(d) list are shown in Table 4.8-1, *Water Bodies within the San Jacinto River Watershed Identified as Impaired under the Clean Water Act*, and on Figure 4.8-4, *Clean Water Act Impaired Water Bodies*. A number of beneficial uses have been identified in the San Jacinto Valley HU including municipal supply, agricultural supply, groundwater supply, contact and noncontact recreation, warm freshwater habitat, and wildlife habitat. Water quality management for the watershed is based on these identified uses. The Basin Plan sets water quality objectives that are qualitative and quantitative to protect the identified beneficial uses. The water quality parameters for which numerical limits were selected from the sources listed above are total dissolved solids, hardness, sodium, chloride, total inorganic nitrogen, sulfate, and chemical oxygen demand. However, in some cases the natural background level of a particular constituent is higher than the beneficial use protective numerical limit. In such instances, the natural background level is considered to comply with the water quality objective (RWQCB 2017).

**Table 4.8-1  
 WATER BODIES WITHIN THE SAN JACINTO RIVER WATERSHED IDENTIFIED  
 AS IMPAIRED UNDER THE CLEAN WATER ACT**

<b>Water Body Name</b>	<b>Hydrologic Subarea (HSA)</b>	<b>Pollutant/Stressor</b>
Canyon Lake	802.30	Nutrients and Bacterial Indicators
Lake Elsinore	802.30	Organic Enrichment/Low Dissolved Oxygen
Lake Fulmor	802.20	Nutrients and Pathogens

Source: RWQCB 2017

The Santa Ana RWQCB has listed impairments for Canyon Lake (Railroad Canyon Reservoir), and Lake Elsinore due to elevated levels of contaminants that include nutrients (Canyon Lake) from non-point sources, organic enrichment (Lake Elsinore), PCBs (Lake Elsinore), and unknown toxicity (Lake Elsinore; RWQCB 2017).

**NPDES Water Quality Improvement Plans**

Pursuant to the RWQCB Municipal Permit for the Santa Ana Region, listed copermittees for the San Jacinto River Watershed Management Area (WMA) have adopted Water Quality Improvement Plans (WQIPs) to prioritize and address water quality conditions that arise from stormwater drain discharges. The highest priority water quality condition of concern for the San Jacinto River WMA is nutrient runoff. Additional priority water quality conditions include bacteria, nitrogen and phosphorus, TDS, eutrophic conditions, and biological integrity (RWQCB 1995).

**Surface Water Ambient Monitoring Program**

The SWRCB coordinates the SWAMP to assess water quality in California’s surface waters. Monitoring occurred most recently in 2012-2015 throughout the Santa Ana Region. Water and sediment samples were taken to assess water chemistry and toxicity; macroinvertebrate samples were taken to analyze for metals, polychlorinated biphenyls (PCBs), and overall ecological health; and components of the physical habitat were recorded, with the primary goal of assessing impacts to aquatic life in each watershed.

In the San Jacinto subregion, five sites were sampled along Strawberry Creek, one site each on the North and South Forks of the San Jacinto River, and one site on the main stem of the San Jacinto River. The results indicate that poor water quality throughout portions of the watershed is impacting aquatic life. Tests revealed the presence of pesticides, nutrient levels above aquatic life thresholds, and high levels of toxicity to indicator species from both water and sediment samples (SWAMP 2017).

**Groundwater Quality**

Groundwater contaminants originate from both natural and anthropogenic sources. The aforementioned Basin Plan and the San Jacinto Groundwater Basin Plan set water quality objectives for groundwater that are qualitative and quantitative in order to protect beneficial uses. The water quality constituents that have numerical limits for groundwater include arsenic, bacteria, barium, boron, chloride, cyanide, total dissolved solids, fluoride, metals, Methylene Blue-Activated Substances, pH, radioactivity, sodium, and sulfate (RWQCB 2017). The District’s San Jacinto Valley Water Banking Enhanced Recharge and Recovery Program EIR (SCH No: 2015071002) conducted a groundwater study

in 2018 for the San Jacinto Upper Pressure Zone to determine key water quality parameters and evaluate general groundwater quality (District 2018). This discussion is based in part on the findings of this study.

The groundwater study sampled wells throughout the District's service area, and all of the wells exhibited relatively normal concentrations of the key water quality parameters. Water quality data from 44 wells were tabulated, plotted, and compared to current California and U.S. EPA regulatory requirements including maximum contaminant levels (MCLs) for drinking water. Only one well (depth unknown) south of the Alessandro Storage Ponds in San Jacinto showed a nitrate concentration exceeding the MCL of 45 milligrams per liter (mg/L).

#### **4.8.1.3 Flood Hazards**

Flooding occurs under conditions such as excessive precipitation, inadequate drainage, dam failure, tsunamis, and/or seiches. Flood hazards as they relate to the proposed project are discussed below.

##### **Precipitation Induced Flooding**

Much of Riverside County is vulnerable to periodic flooding due to hydrology and terrain. Large weather systems that move inland from the Pacific Ocean are forced upward over the mountains where moisture-laden air cools and condenses, forming precipitation. This can result in large rain events and damaging floods. Rapid melt of mountain snowpack is also a concern during the spring and summer months. According to Riverside County's Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP), between 1950 and 2012, there were 116 Proclaimed States of Emergency in Riverside County due to flooding (County of Riverside 2018).

As outlined below under Section 4.8.2, *Regulatory Framework*, FEMA is involved in identifying and mapping flood-prone areas for jurisdictions that participate in the National Flood Insurance Program (NFIP). The City of San Jacinto and the County of Riverside participate in the NFIP; therefore, maps delineating the 100-year storm floodplain for the project area are available (FEMA 2020). The 100-year storm is defined as an event that has a 1 percent chance of occurring in any given year (i.e., rather than an event that occurs every 100 years). Potential floodplains cover much of the City of San Jacinto's jurisdiction due to the San Jacinto River corridor and associated tributaries. The proposed 36-inch pipeline and Alessandro Blending Station area is designated by FEMA as an area that is protected from the 1 percent-annual-chance or greater flood hazard by a levee system. However, overtopping or failure of any levee system is possible. The AWTF project site is located within an area designated as Zone X outside the 0.2 percent annual chance floodplain.

##### **Drainage Facilities**

Development in previously natural areas throughout Southern California has contributed to increased potential for flooding by expanding impervious land cover and therefore increasing runoff by reducing the rate of infiltration. Artificial conveyances, such as storm drains and modifications to river channels, are designed to accommodate the additional volume of runoff and accelerate the flow of water out of the watershed. If drainage facilities are not adequately designed or maintained, however, the fast moving, high volume of water moving through these conveyances can result in increased probability and severity of flooding. Low-lying, urbanized areas in the project area could be at risk for flooding due to inadequate drainage.

## Dam Inundation

Dam inundation occurs when a structural failure or overtopping of a dam causes a large release of impounded water and floods downstream drainages from the dam. Events that could lead to dam inundation include extreme precipitation, earthquakes, or poor design and/or construction of dam structures. Potential risks of damages and loss due to dam inundation are highest in areas directly below the dam and decrease as distance from the dam increases.

According to the Riverside County General Plan EIR, the project site is located within a potential dam failure inundation zone. Lake Perris, located approximately nine miles northwest of the project site, impounds a roughly ten square mile watershed and holds nearly 155,000 acre-feet. The lake functions as the southern terminus of the State Water Project (which conveys water from the Sierra Nevada Mountains across the state). According to an extensive study conducted by the California DWR in 2005, there are fears that an earthquake of magnitude 7.5 or larger could breach the dam. As discussed in Section 4.6, *Geology and Soils*, this engineering study, combined with the reservoir's location within a few miles of the San Jacinto Fault, makes it a concern for seismically triggered dam failure and inundation hazards. However, in 2015, a remediation plan to reinforce the dam was completed to augment dam safety. As a result, there is no imminent threat to public safety.

Diamond Valley Lake forms Southern California's largest reservoir for storing surface water. It almost doubles Southern California's surface storage capacity and is intended to ensure a six-month water supply in the event of an emergency. The reservoir also provides additional water for drought protection and peak summer needs. The reservoir runs between 160 to 260 feet deep and has a storage capacity of 800,000 acre-feet. Water stored at Diamond Valley comes from the Colorado River Aqueduct through the San Diego Canal and from the State Water Project through the new 12-foot diameter, 45-mile Inland Feeder Project. The lake is also used for recreational activities, including boating and fishing. Diamond Valley Lake, while six miles south of the project site, is not identified as being at risk of failure or collapse as it was completed in 2002 and designed to withstand strong seismic events.

## Tsunamis and Seiches

Tsunamis are a series of ocean waves generated by a displacement of large volumes of water, usually caused by underwater landslides, earthquakes, or volcanic activity. Near-shore areas are the most vulnerable to damages caused by tsunamis. Tsunamis would not occur in the project area because it is located approximately 40 miles inland from the Pacific Ocean.

A seiche is an oscillating standing wave in a completely or partially enclosed body of water. Seismic activity, strong winds, and/or abrupt changes in atmospheric pressure can cause a seiche to form. Due to the intervening distances between the nearest enclosed bodies of water, the San Jacinto Reservoir and Diamond Valley Lake, located one mile east and six miles south, respectively, the project site is not at risk of being impacted by a seiche event. However, the evaporation ponds themselves, when in operation and full of water, could be susceptible to seiche waves triggered by a seismic event from one of the region's active faults. The proposed design of the ponds and maximum operating water level would limit any potential damage from wave action, and the likelihood of substantive quantities of water overtopping the ponds is considered low. As discussed in Section 4.6, *Geology and Soils*, seiche- and tsunami-related hazards for the proposed project are considered low; therefore, no further analysis is provided in this section.

## **4.8.2 Regulatory Framework**

### **4.8.2.1 Federal**

#### **Clean Water Act**

Regulatory authorities exist on both the state and federal levels for the control of water quality in California. The EPA is the federal agency, governed by the CWA, responsible for water quality management. 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. Section 303 of the CWA requires states to establish water quality standards consisting of designated beneficial uses of water bodies and water quality standards to protect those uses for all Waters of the United States. Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop lists of impaired waters. Impaired waters are the waters that 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 water on the lists and develop action plans to improve water quality. This process includes development of Total Maximum Daily Loads (TMDLs) that set discharge limits for non-point source pollutants. The recently passed Ducheny Bill (AB 1740) requires the SWRCB and its nine Regional Water Quality Control Boards to post this list and to provide an estimated completion date for each TMDL. The list is administered by the Regional Boards, which for this project, is the Santa Ana Regional Water Quality Control Board.

#### **National Pollutant Discharge Elimination System**

Part of the CWA provides for the NPDES, in which discharges into navigable waters are prohibited except in compliance with specified requirements and authorizations. Under this system, municipal and industrial facilities are required to obtain a NPDES permit that specifies allowable limits, based on available wastewater treatment technologies, for pollutant levels in their effluent. In California, CalEPA has delegated the implementation of this program to the State Board and to the Regional Boards.

Stormwater discharges are regulated somewhat differently. Stormwater runoff from construction areas of one acre or more require either an individual permit or coverage under the statewide General Construction Storm Water Permit. In addition, specific industries, including wastewater treatment plants that have direct stormwater discharges to navigable waters are required to obtain either an individual permit issued by the Regional Board, or obtain coverage under the statewide General Industrial Storm Water Permit for stormwater discharges. A non-point source is a diffused source, such as land runoff, precipitation, deposit from the atmosphere, or percolation. Major non-point sources of water pollution are agriculture, mining, oil and gas extraction, pastureland and feedlots, land disposal, and urban runoff. For non-point sources, the Basin Plan outlines the approach that the Regional Board has taken to control nonpoint source pollution in its Urban Runoff Management scheme. Part of the strategy involves the permitting of stormwater discharges from all facilities associated with industrial activities and from all construction activities that result in the disturbance of land totaling one acre or more.

#### **Federal Emergency Management Agency**

Under Executive Order 11988, FEMA is responsible for the management and mapping of areas subject to flooding during a 100-year flood event (i.e., one percent chance of occurring in a given year). FEMA requires that local governments covered by federal flood insurance pass and enforce a floodplain

management ordinance that specifies minimum requirements for any construction within the 100-year flood plain, as depicted on FEMA maps.

#### **4.8.2.2 State**

##### **State Water Resources Control Board**

The SWRCB, located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. Within the SWRCB, the Division of Drinking Water (DDW) regulates public drinking water systems. Much of the implementation of the SWRCB's responsibilities is delegated to its nine Regional Boards. The proposed project is located within the Santa Ana Region.

##### **Regional Water Quality Control Board**

The Santa Ana RWQCB is responsible for the protection of beneficial uses of water resources within the Santa Ana Region. The RWQCB uses planning, permitting, and enforcement authorities to meet this responsibility, and adopted the Water Quality Control Plan (WQCP) for the Santa Ana Region Basin Plan in February 2004 with minor editorial corrections made to Chapter 4 in 2011 and updated again in 2016. The Santa Ana Region Basin Plan comprehensive program requirements are designed to be consistent with federal regulations (40 CFR Parts 122-124) and are implemented through issuance of NPDES permits to point source and non-point sources of pollutant discharges including construction activities. The Santa Ana Region Basin Plan identifies beneficial uses and establishes water quality objectives for surface waters and groundwater in the Region, as well as effluent limitations and discharge prohibitions intended to protect those uses.

##### **Construction Activity Permitting**

The California Construction Stormwater Permit (Construction General Permit; *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ, National Pollutant Discharge Elimination System No. CAS000002), adopted by the SWRCB, regulates construction activities that include clearing, grading, and excavation resulting in soil disturbance of at least one acre of total land area. The Construction General Permit authorizes the discharge of stormwater to surface waters from construction activities. It prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges and all discharges that contain a hazardous substance in excess of reportable quantities established at 40 CFR 117.3 or 40 CFR 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

The Construction General Permit requires that all developers of land where construction activities will occur over more than one acre do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three Risk Levels established in the General Permit;

- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the Nation;
- Develop and implement a SWPPP, which specifies BMP that will reduce pollution in stormwater discharges to the Best Available Technology Economically Achievable/Best Conventional Pollutant Control Technology standards; and
- Perform inspections and maintenance of all BMPs.

Typical BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, control pollutants from construction materials, and address post construction runoff quantity (volume) and quality (treatment). The SWPPP must also include a discussion of the program to inspect and maintain all BMPs.

### **Urban Water Management Act**

Water Code Section 10620(a) of the Urban Water Management Planning Act requires urban water suppliers to prepare and adopt an Urban Water Management Plan (UWMP) and sets forth parameters for doing so. Each UWMP is to assess current and projected water supplies; evaluate demand and customer type; evaluate reliability of water supplies; describe conservation measures implemented by the water supplier; provide a response plan for times of water shortage; and compare supply and demand projections. UWMPs must be updated every five years and the most recent update occurred in 2010.

The Water Conservation Act of 2009 set a requirement for water agencies to reduce their per capita water use by the year 2020. The overall goal is to reach a statewide reduction of per capita urban water use of 20 percent by December 31, 2020, with an intermediate goal of 10 percent reduction by December 31, 2015. In the 2010 UWMPs, urban suppliers were required to set targets and supply a plan to reduce per capita water consumption. Demand reduction can be achieved through both conservation and the use of recycled water as a potable demand offset. Agencies within the Management Area are involved in implementation of the Plan. As a result of the successful efforts to improve water efficiency, to recharge the basin as part of the Management Plan, and to increase the use of recycled water, water supplies will be available to meet demand for over 20 years into the future.

### **State Health and Safety Code**

As part of the California Health and Safety Code in Title 17 of the CCR, public water suppliers must protect the public water supply from contamination by implementation of a cross connection control program. Water suppliers are required to ensure that the cross-control program includes provisions of backflow protection by, establishment of a system to test backflow preventers, provide trained staff in the cross-control program, and implement surveys and maintenance of the system to ensure adequacy. While the water supplier is required to evaluate the degree of potential health hazard to the public water supply which may be created as a result of conditions existing on a user's premises, they are not responsible for abatement of cross connections which may exist within a user's premises. As a minimum, the water supplier should evaluate as part of the cross-connection control program the existence of cross-connections, the nature of materials handled on the property, the probability of a backflow occurring, the degree of piping system complexity and the potential for piping system modification.

## **Sustainable Groundwater Management Act of 2014**

The Sustainable Groundwater Management Act of 2014 (SGMA) is a three-bill package that collectively establishes a new structure for managing California’s groundwater. A central feature of the SGMA is the recognition that groundwater management in California is best accomplished locally. The SGMA was signed by Governor Edmund G. Brown Jr. on September 16, 2014, and includes the provisions of SB 1168, AB 1739, and SB 1319. The SGMA builds upon the existing groundwater management provisions established by AB 3030 (1992), SB 1938 (2002), and AB 359 (2011), as well as SBX7 6 (2009) which established the California Statewide Groundwater Elevation Monitoring (CASGEM) Program.

The SGMA defines sustainable groundwater management as “the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.” Undesirable results include, but are not limited to, chronic lowering of groundwater levels, reduction of groundwater storage, seawater intrusion, degraded water quality, and land subsidence that interferes with surface land uses. The east portion of the San Jacinto Groundwater Basin, where the project is located, is adjudicated and therefore exempt from SGMA.

### **4.8.2.3 Local**

#### **Riverside County MS4 Permit**

In large metropolitan areas with interconnected municipal storm sewer systems, Municipal Separate Storm Sewer (MS4) permits are often issued to multiple Permittees that work cooperatively to meet NPDES requirements. Riverside County is a permittee of the MS4 NPDES Permit within the Santa Ana Region of Riverside County. The Riverside County Flood Control and Water Conservation District is the Principal Permittee and the County of Riverside and the cities of Beaumont, Calimesa, Canyon Lake, Corona, Eastvale, Hemet, Jurupa Valley, Lake Elsinore, Menifee, Moreno Valley, Murrieta, Norco, Perris, Riverside, San Jacinto, and Wildomar are the Co-Permittees.

The first MS4 permit was issued by the Regional Board to the MS4 Permittees in 1990. The 1990 MS4 permit was followed by MS4 permits issued in 1996, 2002 and 2010. The Regional Board adopted a new MS4 permit for the Santa Ana Region of Riverside County on January 29, 2010 (Order No. 2010-0033, NPDES No. CAS618033). The Order regulates the discharge of pollutants in urban runoff from non-agricultural sources. All permittees must implement a WQMP that include post-construction BMP requirements. This permit also includes requirements directly addressing the waste load allocations (WLAs) for Lake Elsinore and Canyon Lake. Specifically, this permit explicitly requires implementation of tasks contained within the TMDLs and compliance with the WLAs. The permit also requires preparation of a Comprehensive Nutrient Reduction Plan (CNRP); which describes the specific actions that have been taken or will be taken to achieve compliance with the TMDL’s WLA by December 31, 2020.

#### **Riverside County Well Permit**

Riverside County Ordinance No. 682.3 regulates the construction, reconstruction, abandonment, and destruction of community water supply wells, individual domestic wells, and agricultural wells. Under the auspices of the Department of Environmental Health, the County is responsible for issuing well drilling permits. A valid permit along with the payment of all applicable fees is required before anyone digs, drills, bores, drives, or reconstructs a well that is, or was, a water well, a cathodic protection well, or a monitoring well. Standards for the construction or reconstruction of wells are the standards

recommended in the California Department of Water Resources Bulletin No. 74-81, Chapter II, and Bulletin No. 74-90, as amended by the State.

### **4.8.3 Thresholds of Significance**

The following criteria from Appendix G of the *CEQA Guidelines* are used as thresholds of significance to determine the impacts of the proposed project as related to hydrology and water quality. The proposed project would have a significant impact if it would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or the addition of impervious surfaces, in a manner which would: result in substantial erosion, siltation, or flooding on- or off-site; substantially increase the rate or amount of surface runoff; 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;
4. Risk release of pollutants due to project inundation if located in a flood hazard, tsunami, or seiche zone; or
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

### **4.8.4 Project Impacts and Mitigation**

#### **4.8.4.1 Issue 1: Water Quality**

*Would the proposed project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*

#### **Impact Analysis**

The proposed project would have the potential to contribute to a violation of water quality standards or the degradation of surface water quality from construction, operation, and/or maintenance of the project facilities, as outlined below.

#### **Construction Activities**

Potential water quality impacts related to project construction include erosion/sedimentation, the use and storage of construction-related hazardous materials (e.g., fuels), generation of debris from demolition activities, and disposal of extracted groundwater (if required), as described below. In addition, construction activities would require the use of hazardous materials including but not limited to petroleum products (e.g., oil, gasoline, and diesel fuels) and automotive fluids (e.g., antifreeze and hydraulic fluids). Inadvertent spills or leaks of such pollutants could affect the quality of runoff water

from the construction sites. However, because the project would disturb more than one acre, construction would be subject to the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). As part of this process, the District would file a Notice of Intent with SWRCB, in compliance with the statewide NPDES General Construction Permit. The District would be required to prepare and submit a SWPPP that would identify pollutant sources that may affect the quality of stormwater discharge and identify BMPs, such as erosion control and pollution prevention measures, to be used during construction.

#### *Erosion/Sedimentation*

Construction of the proposed project could result in erosion/sedimentation from activities such as grading, trenching, and excavation. Sediment that is washed off site into surface waters can smother aquatic organisms, alter the substrate and habitat, and alter the drainage course. Additionally, increased turbidity associated with erosion and sedimentation can degrade water quality by transporting pollutants that adhere to sediment particles, such as hydrocarbons. These potential impacts would be addressed through conformance with District requirements, as well as requirements under the NPDES Construction General Permit, as described above in Section 4.8.2, *Regulatory Framework*.

Additionally, implementation of the SWPPP for project construction would be required. Minimum BMPs would be determined during the NPDES/SWPPP process and would likely include standard industry measures and guidelines from the NPDES Construction General Permit and the additional sources identified under Section 4.8.2. Based on the implementation of the required BMPs summarized below and/or other appropriate erosion and sediment control BMPs as part of (and in conformance with) the project's SWPPP and related regulatory requirements, associated potential erosion/sedimentation impacts from project development would be less than significant.

Erosion and sedimentation controls for the proposed project would be outlined in the SWPPP, with the resulting BMPs taking priority over the following more general types of standard industry measures:

- Comply with seasonal grading restrictions during the rainy season for applicable locations/conditions.
- Prepare and implement a Construction Site Monitoring Program (CSMP) to ensure appropriate monitoring, testing, BMP effectiveness, and conformance with applicable discharge requirements.
- Prepare and implement a Rain Event Action Plan (REAP), if applicable (i.e., depending on risk level), to ensure that active construction areas/activities have adequate erosion and sediment controls in place within 48 hours of the onset of a likely precipitation event (i.e., 50 percent or greater probability of producing precipitation, per National Oceanic and Atmospheric Administration projections).
- Preserve existing vegetation wherever feasible and use phased grading schedules to limit the area subject to erosion at any given time.
- Properly manage stormwater and non-stormwater flows to minimize runoff.
- Use sediment controls to protect the construction site perimeter and prevent off-site sediment transport, including measures such as temporary inlet filters, silt fence, fiber rolls, silt dikes,

biofilter bags, gravel bag berms, compost bags/berms, temporary sediment basins, check dams, street sweeping/vacuuming, energy dissipators, stabilized construction access points/sediment stockpiles and properly fitted covers for sediment transport vehicles.

- Store BMP materials in applicable on-site areas to provide “standby” capacity adequate to provide complete protection of exposed areas and prevent off-site sediment transport.
- Provide full erosion control for disturbed areas and material stockpiles not scheduled for additional activity for 14 or more consecutive calendar days.
- Provide appropriate training, including emergency preparedness training, for the personnel responsible for BMP installation and maintenance.
- Use solid waste management efforts such as proper containment and disposal of construction trash and debris.
- Comply with local dust control requirements, potentially including measures such as regular watering, use of chemical palliatives, limiting construction vehicle/equipment speeds and restricting/precluding construction operations during periods of high wind speeds.
- Implement appropriate monitoring and maintenance efforts (e.g., prior to and after storm events) to ensure proper BMP function and efficiency.
- Implement sampling/analysis, monitoring/reporting and post-construction management programs per NPDES requirements.
- Implement additional BMPs as necessary to ensure adequate erosion and sediment control (e.g., enhanced treatment and more detailed monitoring/reporting).

#### *Construction-related Hazardous Materials*

Project construction would involve the on-site use and/or storage of hazardous materials such as fuels, lubricants, solvents, and concrete. The accidental discharge of such materials during project construction could potentially result in significant impacts if such materials reach downstream receiving waters, particularly materials such as petroleum compounds that can be toxic to aquatic species in low concentrations. The SWPPP under NPDES guidelines would prescribe detailed measures to avoid or mitigate potential impacts related to the use and potential discharge of construction-related hazardous materials. Project BMPs would likely include the types of standard measures listed below, as derived from the Construction General Permit and the additional sources identified under Section 4.8.2.

Based on the implementation of these and/or other appropriate BMPs as part of (and in conformance with) the project SWPPP and related regulatory requirements, potential impacts from construction-related hazardous materials would be less than significant. Construction-related hazardous material BMPs include, but are not limited to, the following:

- Minimize the amount of hazardous materials on site and restrict storage/use locations to areas at least 50 feet from storm drains and surface waters.

- Use raised (e.g., on pallets), covered, and/or enclosed storage facilities for all hazardous materials, and maintain accurate and up-to-date written inventories and labels.
- Use berms, ditches, and/or impervious liners (or other applicable methods) in hazardous material storage and vehicle/equipment maintenance and fueling areas, to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill.
- Place warning signs in areas of hazardous material use or storage, and along drainages and storm drains (or other appropriate locations), to avoid inadvertent disposal.
- Properly maintain all construction equipment and vehicles.
- Restrict paving operations during wet weather and use appropriate sediment control devices downstream of paving activities.
- Properly contain and dispose of wastes and/or slurry from sources including concrete, dry wall, and paint, by using methods such as properly designed and contained washout areas/facilities.
- Provide training for applicable employees in the proper use, handling, and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.
- Store absorbent and clean-up materials in readily accessible on-site locations.
- Properly locate, maintain, and contain portable wastewater facilities.
- Use recycled or less hazardous materials wherever feasible.
- Post regulatory agency telephone numbers and a summary guide of clean-up procedures in a conspicuous on-site location.
- Regularly (at least weekly) monitor and maintain hazardous material use/storage facilities and operations to ensure proper working order.

#### *Disposal of Extracted Groundwater*

According to the Geotechnical Report prepared by Kleinfelder in 2017, shallow groundwater is generally not expected to be encountered directly as part of project construction or operation because regional groundwater is estimated to be at depths greater than 150 feet below the ground surface. However, construction dewatering could potentially be required during construction operations (e.g., excavation for the 36-inch pipeline or brine ponds). Disposal of groundwater extracted during construction activities into local drainages and/or storm drain facilities could potentially generate significant water quality impacts through erosion/sedimentation, or the possible occurrence of pollutants in local aquifers. Project construction would require conformance with Santa Ana RWQCB Order No. R8-2020-0006, NPDES No. CAG998001, General Waste Discharge Requirements for Insignificant Threat Discharges to Surface Waters for disposal of extracted groundwater. These permit requirements include discharge prohibitions, effluent limitations, receiving water limitations, and other provisions. The discharge prohibitions specified in the permit include the following:

- The discharge of oil, trash, industrial waste sludge, or other solids directly to the surface waters or in any manner that will ultimately affect surface waters is prohibited.
- The discharge of any substances in concentrations to toxic aquatic life, animal life, or plant life is prohibited.
- The discharge of wastes to property not owned or controlled by the Discharger is prohibited, except to surface water as authorized under this Order.
- Odors, vectors, and other nuisances of waste origin are prohibited beyond the limits of each Discharger's facility.
- The addition of chemicals to the extracted groundwater, exclusive of chlorine to control biofouling in treatment systems, is prohibited except when approved in writing by the Executive Officer.
- There shall be no direct discharges of waste to Areas of Special Biological Significance such as Newport Beach Marine Life Refuge and Irvine Coast Marine Life Refuge.

The effluent limitations included in the permit prohibit the discharge of wastewater containing concentrations of total petroleum hydrocarbons, total residual chlorine, total suspended solids, and sulfides in excess of specified maximum daily concentration limits. The effluent limitations also specify that the pH of the discharge shall be within 6.5 and 8.5 pH units and that there shall be no visible oil and grease in the discharge. The permit's receiving water limitations include limitations for discharges to both surface waters and underlying groundwater. Through conformance with the Santa Ana RWQCB Order No. R8-2020-0006, NPDES No. CAG998001, General Waste Discharge Requirements for Insignificant Threat Discharges to Surface Waters, potential impacts from construction-related dewatering would be less than significant.

### **Operation and Maintenance Activities**

The long-term operation and maintenance of proposed project facilities would not result in the generation of substantial amounts of pollutants generally associated with most types of urban development, such as nutrients, trash and debris, hydrocarbons, oxygen demanding substances, bacteria and viruses, and pesticides. Specifically, the project facilities would consist of enclosed mechanical equipment, evaporation ponds, and underground pipelines that do not entail on-site habitation or associated uses (e.g., substantial vehicular traffic or pesticide/herbicide use) that would generate the noted types of pollutants. Long-term operation and maintenance of proposed facilities, however, could potentially generate pollutants in association with activities such as on-site fuel and lubricant use and vehicular/employee access for maintenance and related activities. However, such potential pollutant generation would be addressed through standard design measures and BMPs. Chemicals that would be used at the AWTF would be stored in containers that would include spill control and secondary containment features in accordance with standard hazardous material regulations (see Section 5.2, Hazards and Hazardous Materials, of this EIR). In addition, the project would comply with requirements of the NPDES General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial Permit).

The proposed project would blend advanced treated water (RO permeate) from the AWTF with tertiary recycled water from the SJVRWRF for recharge into the groundwater table via the Mountain Avenue

West Recharge Basin. The tertiary recycled water from the SJVRWRF would also be the source for the RO permeate. Between 2010 and 2015, the SJVRWRF expanded and upgraded its treatment processes to meet more stringent state requirements for recycled water quality. A Water Quality Data Review Technical Memorandum (CDM Smith 2017) was prepared for the proposed project to evaluate the SJVRWRF's historical and current water quality data as related to general parameters, organics, metals, and emerging contaminants, and in turn provide design recommendations for the proposed AWTF to achieve the appropriate quality of water that would be recharged into the groundwater table.

Water recycling is regulated by Title 22, Division 4, Chapter 3 of the CCR. Title 22 Water Recycling Criteria are developed and administered by the SWRCB DDW. Requirements for groundwater replenishment with recycled water were added to Title 22 Water Recycling Criteria in 2014. Surface application recharge projects, such as the proposed project, are allowed to use recycled water that meets the Title 22 tertiary filtration and disinfection requirements. There are limitations on the amount of tertiary recycled water that can be applied and concomitant requirements for diluent water, which is water required to be combined with recycled water to dilute it. Surface application projects can also use recycled water that has undergone advanced treatment as defined in the regulations and can use higher quantities of recycled water relative to diluent water and potentially no diluent water.

A Preliminary Design Report was prepared for the proposed project that details how the project's proposed facilities would meet the Title 22 water quality requirements, in addition to other water quality requirements, including those set forth by the RWQCB in the Basin Plan for "maximum benefit" water quality objectives for the SJUPMZ (CDM Smith 2018; Appendix E). Per the Basin Plan, the "maximum benefit" objectives for the SJUPMZ are 500 mg/L TDS and 7.0 mg/L nitrate-nitrogen. The water recharged by the project would have a TDS of approximately 300 mg/L and a nitrate-nitrogen concentration of 3 mg/L (CDM Smith 2018; Appendix E), which would comply with the set objectives. Overall, water produced as part of the project that would be recharged into the groundwater table would improve the existing groundwater quality of the SJUPMZ.

Impacts during the proposed project's operation and maintenance activities would be less than significant.

### **Summary**

Based on compliance with specifications under appropriate regulatory permits, impacts related to violations of water quality standards, waste discharge requirements, and surface and groundwater quality degradation would be less than significant.

### **Mitigation Measures**

Impacts associated with water quality would be less than significant and no mitigation is necessary.

#### **4.8.4.2 Issue 2: Groundwater Supply**

*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?*

## Impact Analysis

The proposed facilities would not include structures or activities that could directly affect groundwater quality, such as underground fuel tanks or septic systems. Project construction would be required to comply with the District's stormwater pollution prevention requirements as well as applicable construction stormwater permits, thereby reducing impacts to groundwater quality related to construction activities to a less-than-significant level. In the unlikely event that shallow groundwater is encountered during project construction, temporary dewatering efforts would be implemented in conformance with applicable Santa Ana RWQCB requirements. Based on the minor and temporary nature of such potential dewatering activities, no associated significant impacts related to drawdown or depletion of local groundwater resources are anticipated.

Operation of the proposed project does not entail withdrawal of groundwater, with no associated impacts to local groundwater supplies, aquifer volumes, or water tables. The project would result in groundwater recharge capacities of up to 4,000 AFY in Phase I and 15,000 AFY in Phase II. The project would convey the recharge water to the Mountain Avenue West Recharge Basin where the water would be stored and percolated into the belowground aquifer. Operation (including aquifer recharge) of the Mountain Avenue West Recharge Basin, which is part of the San Jacinto Valley Water Banking – ERRP, was previously analyzed in the EIR prepared for the San Jacinto Valley Water Banking – ERRP (District 2018). As discussed in the EIR, monitoring wells would be used to monitor groundwater elevations and movement and would be used primarily to enact operational adjustments if groundwater mounding causes groundwater levels to rise above a level of 70 feet below ground surface. Such operational adjustments would include reduction or cessation of recharge operations and/or pumping at extraction wells. Given that groundwater levels in the project area range from 400 to 500 feet below ground surface, substantial localized groundwater mounding effects are not anticipated from recharge at the Mountain Avenue West Recharge Basin.

While the project would include the installation of new impervious surfaces associated with the Alessandro Blending Station and AWTF, these areas would be minor in extent and would not significantly affect groundwater recharge potential. As described in Chapter 2.0, the project's five brine ponds would not significantly affect groundwater recharge potential and would include a groundwater detection monitoring program and leak detection monitoring system to ensure no project-related impacts to groundwater occur. Brine pond design would include a LCRS with an upper layer primary liner, a bottom layer drain liner, and a sump to collect any liquid that leaks through the upper primary liner. In addition, the brine pond VZMS would consist of a gravel layer and lined sump directly below the LCRS sump and along the centerline of each pond where leaks are most likely to occur. The VZMS would be designed for moisture detection and monitoring, collection, and removal. Additional groundwater monitoring would occur at various nearby monitoring stations.

Furthermore, implementation of the proposed project would replenish the SJUPMZ aquifer with a combination of recycled water and advanced treated water. As a result, project implementation would assist the District in achieving the GRP objectives, reduce reliance on imported water sources, provide improved drought resiliency, and potentially improve the quality of the groundwater basin. Therefore, project-related impacts to groundwater would be less than significant.

## Mitigation Measures

Impacts associated with decreasing groundwater supplies or interfering substantially with groundwater recharge would be less than significant; therefore, no mitigation is necessary.

### 4.8.4.3 Issue 3: Drainage

*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 the addition of impervious surfaces, in a manner which would: result in substantial erosion, siltation, or flooding on- or off-site; substantially increase the rate or amount of surface runoff; 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?*

### Impact Analysis

Implementation of the proposed project would result in modification of the existing on-site drainage patterns through grading and construction. The project sites are currently undeveloped and existing discharges are minimal. Specifically, the project includes the development of the AWTF, Alessandro Blending Facility, brine ponds, and 36-inch belowground pipeline, as well as the sliplining of an existing 18-inch pipeline. Because the proposed project includes surface facilities, it would introduce new impervious surfaces to the project area. As a result, the proposed project would result in additional stormwater runoff compared to existing conditions. While the overall drainage and flow pattern alterations are not anticipated to be substantial, associated potential impacts to individual local flow patterns and associated erosion/sedimentation could occur.

As discussed in Section 4.8.4.1, construction and operation of the proposed project would be required to comply with state and local stormwater regulations, including construction BMPs and the SWPPP, which reduce the likelihood of runoff exceeding the capacity of an existing stormwater drainage system. As noted in Section 2.6, Drainage Plan, of the Project Description, the project would incorporate the recommendations in the Preliminary Design Report to address runoff from the proposed buildings and structures. Runoff would be collected in a site drainage system and discharged to two on-site stormwater bioretention basins. Final design of the stormwater management system would be coordinated with the stormwater management system from the future solar site. In addition, the brine evaporation basins would be designed to withstand a potential 1,000-year storm. Through project design and compliance with existing regulations, the proposed project would not result in increased polluted runoff volumes that would exceed pre-project site conditions or the capacity of existing stormwater drainage systems. Impacts associated with impervious surfaces, runoff generation, hydromodification, and erosion/sedimentation would be less than significant.

The Riverside County Flood Control and Water Conservation District's San Jacinto Valley Master Drainage Plan includes both existing and future planned drainage facilities within the project area. The existing San Jacinto Master Drainage Plan – Line E is located approximately 1.2 miles southeast of the AWTF and would not be affected by the proposed project. The San Jacinto River is identified as an existing facility and is proximate to the project's proposed 36-inch conveyance pipeline; however, installation of the 36-inch pipeline would not affect the San Jacinto River. Future facilities are planned near the project's proposed AWTF and brine management system but not within the footprints of these project components. Additional future planned drainage facilities would intersect and/or be located

near portions of the project's proposed 18-inch pipeline to be sliplined. Because the 18-inch pipeline already exists and because the sliplining process is relatively unimpactful, impacts to these future drainage facilities are not anticipated.

### **Mitigation Measures**

Impacts associated with altering drainage patterns, runoff capacity, and polluted runoff would be less than significant; therefore, no mitigation is necessary.

#### **4.8.4.4 Issue 4: Flood Hazard Areas**

*Would the proposed project risk release of pollutants due to project inundation if located in a flood hazard, tsunami, or seiche zone?*

### **Impact Analysis**

As discussed above, due to the intervening distance between the project site and nearest enclosed bodies of water, the project is not located within a seiche hazard zone. Similarly, hazards associated with tsunamis would not occur because the project is located approximately 40 miles inland from the Pacific Ocean. In addition, the proposed pipeline conveyance and Alessandro Blending Station area is designated by FEMA as being protected from the one-percent-annual-chance or greater flood hazard by a levee system. The AWTF project site is located within a floodplain area designated as Zone X outside the 0.2 percent annual chance floodplain. In the unlikely event of on-site flooding, the conveyance pipelines would not be at risk, but flooding of the AWTF could result in the release of pollutants. Many of the proposed facilities would be below grade upon completion (e.g., buried pipelines) or, if above ground, would not be permanently occupied (such as the AWTF and Alessandro Blending Station).

The AWTF site would include a bulk chemical storage area which would be classified in accordance with the CBC as an H4, High-Hazard Group occupancy based on the quantity of hazardous material being stored. In conformance with EPA guidelines, incompatible chemicals would be separated into groups including acids, bases, salts & polymers, oxidizing powders, and compressed gases. Incompatible chemical rooms would then be separated with one-hour fire rated separation walls. Chemicals would be stored in conformance with the California Fire Code and California Mechanical Code and would include approved storage containers, mechanical ventilation, spill control and secondary containment, and appropriate hazardous chemical storage signage. Where required, the chemical storage areas would also include monitor control equipment, gas detection systems and fire detection systems. Project development would also comply with local floodplain management ordinances, which must meet minimum federal requirements. Compliance with these guidelines would reduce potential impacts associated with the risk of release of pollutants due to project inundation to a less-than-significant level.

### **Mitigation Measures**

Impacts associated with the release of pollutants due to project inundation would be less than significant; therefore, no mitigation is necessary.

#### **4.8.4.5 Issue 5: Water Quality Plans**

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

## Impact Analysis

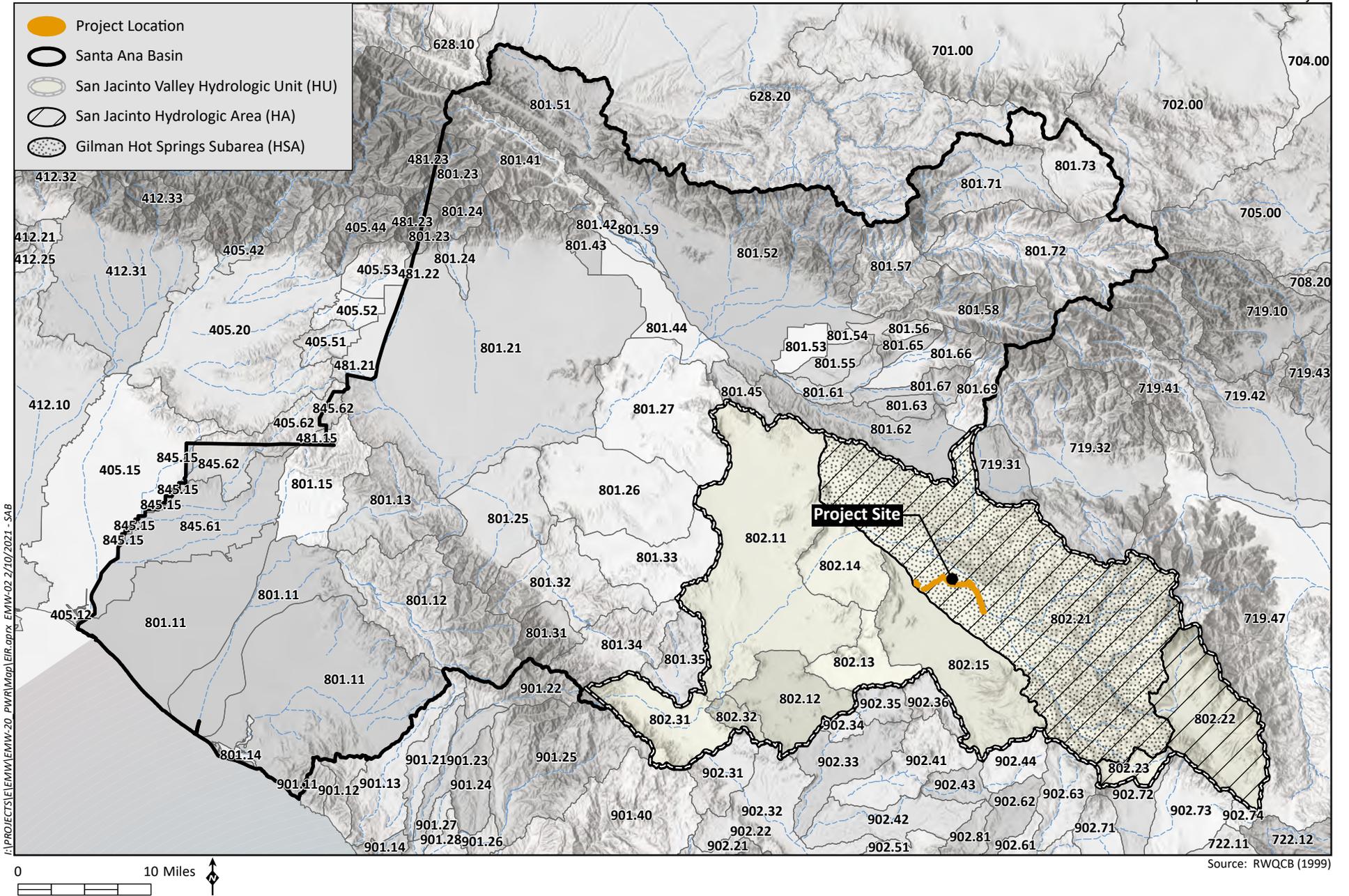
The proposed project site is within the Santa Ana RWQCB planning and management boundaries. Local water management plans must, at a minimum, comply with water quality thresholds and measures as defined by the RWQCB. The Basin Plan sets water quality objectives that are qualitative and quantitative in order to protect the identified beneficial uses of the watershed. The Basin Plan for the RWQCB floodplain recommends that suspended sediment load and discharge not be elevated such that it can be considered a nuisance, or such that the sediment load adversely affects other beneficial uses of the impacted water resource. Locally, the proposed floodplain area is covered by the San Jacinto General Plan, Resource Management Element and the Riverside County General Plan, Open Space and Safety Elements (County of Riverside 2015). While portions of the proposed project fall within a 100-year floodplain, the project would be consistent with the policies and objectives described in the Flood Protection Element.

The Riverside County General Plan requires that proposed development projects incorporate safeguards that would minimize floodplain sedimentation and erosion. While the proposed project could potentially increase floodplain sediment erosion and transport, possibly degrading the water quality of receiving waters, the project would comply with the requirements of the RWQCB and NPDES permits for stormwater runoff associated with construction activities and the District would implement standard BMPs to reduce potential impacts to a less-than-significant level. Therefore, implementation of the proposed project would not conflict with the Basin Plan or other local water quality or groundwater management plans impacting the floodplain. Impacts would be less than significant.

## Mitigation Measures

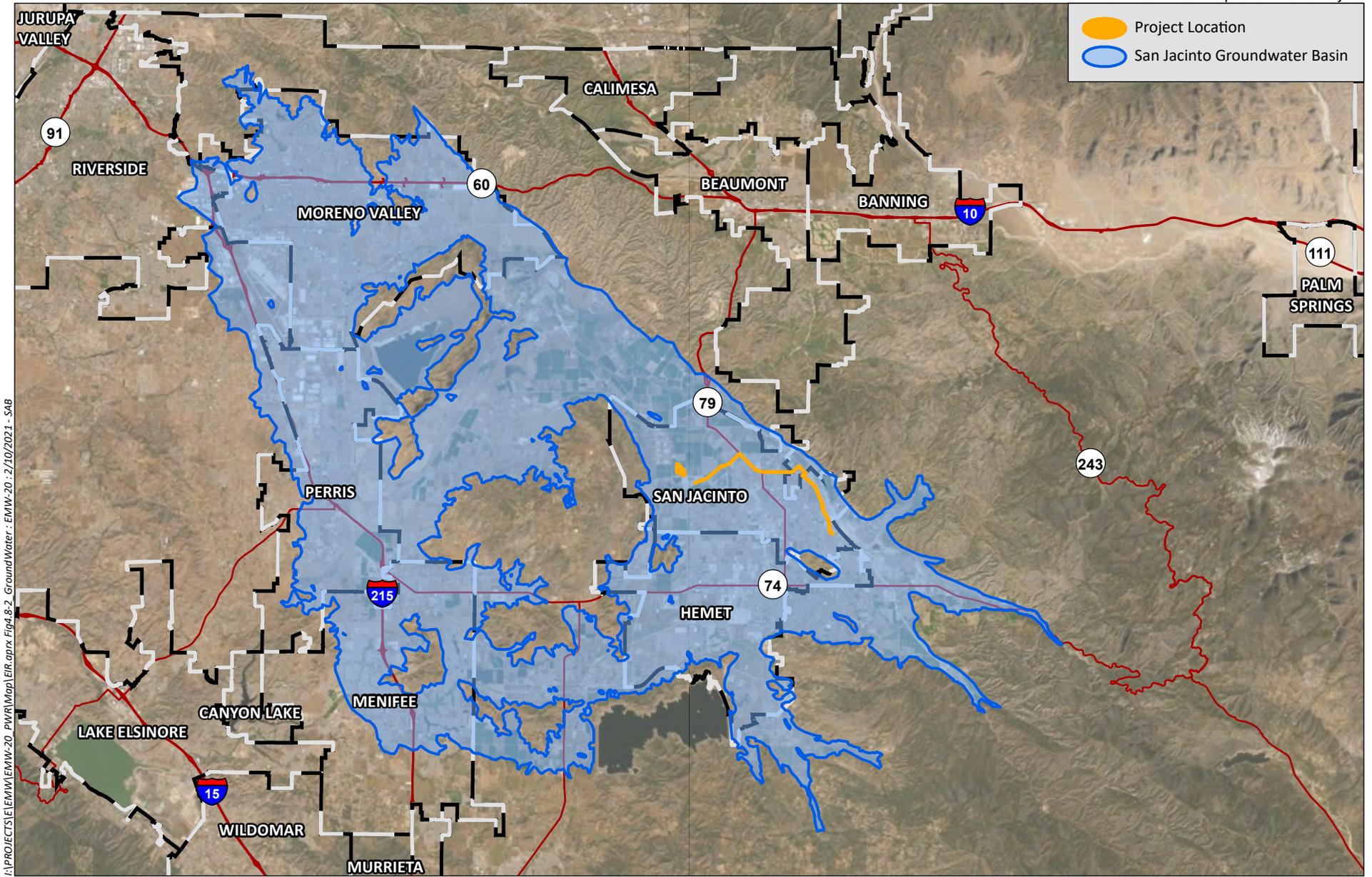
Impacts associated with conflict with or obstruction of a water quality or groundwater management plan would be less than significant; therefore, no mitigation is necessary.

This page intentionally left blank



F:\PROJECTS\EMM\EMW-20\_PWR\Map\ER.aprx EMW-02\_2/10/2021 - SAB

Source: RWQCB (1999)

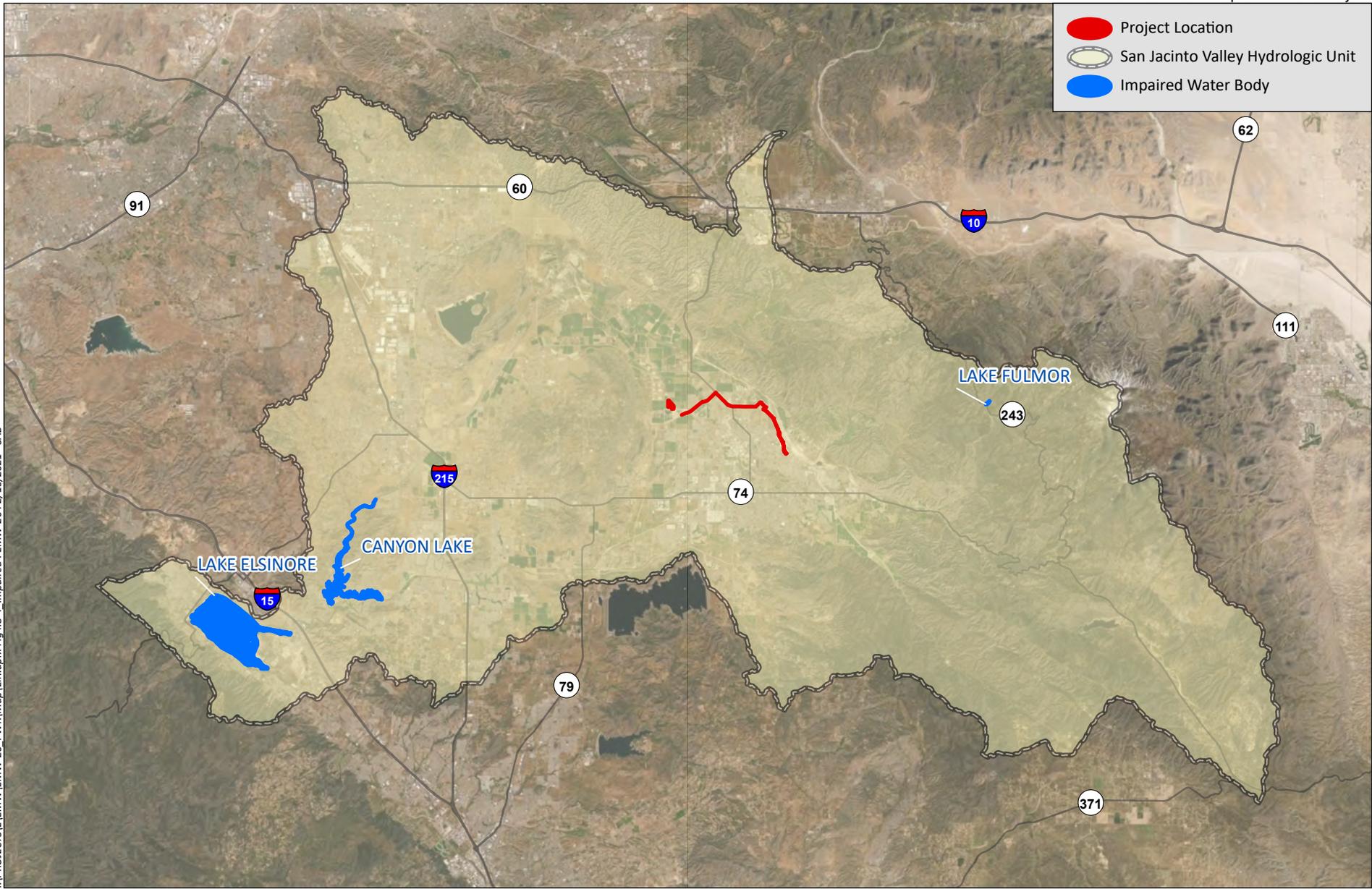


I:\PROJECTS\EMM\EMW-20\_PWRI\Map\ER.aprx Fig 4.8-2 Ground Water : EMW-20 - 2/10/2021 - SAB

Source: Aerial (Maxar, 2018), Basins (Bulletin 118, DWR 2018)



-  Project Location
-  San Jacinto Valley Hydrologic Unit
-  Impaired Water Body



I:\PROJECTS\EMW\EMW-20\_PWRI\Map\IR.aprx Fig 4.8-4 Impaired : EMW-20 - 2/10/2021 - SAB



Source: Aerial (Maxar, 2018), Basins (Bulletin 118, DWR 2018)

## 4.9 NOISE

This section addresses the potential noise impacts associated with the proposed project. The following discussion includes a description of existing conditions as related to noise, a summary of applicable regulations, and an evaluation of the proposed project’s potential environmental effects associated with temporary and permanent increases in noise from construction and operation, vibration, and aircraft noise.

### 4.9.1 Existing Conditions

#### 4.9.1.1 Fundamentals of Environmental Noise

Noise is commonly defined as unwanted sound. Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). Sound pressures in the environment have a wide range of values. The sound pressure level is the logarithm of the ratio of the unknown sound pressure to a reference quantity of the same kind. To account for the pitch of sounds and the corresponding sensitivity of human hearing to them, the raw sound pressure level is adjusted with an A-weighting scheme based on frequency that is stated in units of decibels (dBA). Typical A-weighted noise levels are listed in Table 4.9-1, *Typical A-Weighted Noise Levels*.

**Table 4.9-1  
 TYPICAL A-WEIGHTED NOISE LEVELS**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 mph	— 80 —	Food blender at 3 feet Garbage disposal at 3 feet
Noisy urban area, daytime	— 70 —	Vacuum cleaner at 10 feet Normal speech at 3 feet
Gas lawn mower, 100 feet Commercial area	— 60 —	
Heavy traffic at 300 feet	— 50 —	Large business office Dishwasher next room
Quiet urban daytime	— 40 —	Theater, large conference room (background)
Quiet urban nighttime	— 30 —	Library Bedroom at night, concert hall (background)
Quiet suburban nighttime	— 20 —	
Quiet rural nighttime	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013a  
 dBA = A-weighted decibel

A given level of noise may be more or less tolerable depending on the sound level, duration of exposure, character of the noise sources, the time of day during which the noise is experienced, and the activity affected by the noise. For example, noise that occurs at night tends to be more disturbing than that which occurs during the day because sleep may be disturbed. Additionally, rest at night is a critical requirement in the recovery from exposure to high noise levels during the day. In consideration of these factors, different measures of noise exposure have been developed to quantify the extent of the effects anticipated from these activities. Some indices consider the 24-hour noise environment of a location by using a weighted average to estimate its habitability on a long-term basis. Other measures consider portions of the day and evaluate the nearby activities affected by it as well as the noise sources. The most commonly used indices for measuring community noise levels are the Equivalent Sound Level ( $L_{EQ}$ ), the Day-Night Sound Level ( $L_{DN}$ ), and the Community Noise Equivalent Level (CNEL).

$L_{EQ}$  is the average acoustical or sound energy content of noise, measured during a prescribed period, such as 1 minute, 15 minutes, 1 hour, or 8 hours. It is the decibel sound level that contains an equal amount of energy as a fluctuating sound level over a given period of time.

$L_{DN}$  is a 24-hour average, where sound levels during the nighttime hours of 10 p.m. to 7 a.m. have an added 10 dB weighting. This measurement applies weights to noise levels during nighttime hours to compensate for the increased disturbance response of people at those times.

CNEL is similar to the  $L_{DN}$ . CNEL is the average equivalent A-weighted sound level over a 24-hour period. This measurement applies weights to noise levels during evening and nighttime hours to compensate for the increased disturbance response of people at those times. CNEL is the equivalent sound level for a 24-hour period with a 5 dBA weighting applied to all sound occurring between 7:00 p.m. and 10:00 p.m. and a 10 dBA weighting applied to all sound occurring between 10:00 p.m. and 7:00 a.m.

The decibel level of a sound decreases (or attenuates) exponentially as the distance from the source of that sound increases. For a single point source such as a piece of mechanical equipment, the sound level normally decreases by about 6 dBA every time the distance between the source and listener is doubled (doubling of distance). Sound that originates from a linear, or "line" source such as a heavily traveled traffic corridor, attenuates by approximately 3 dBA per doubling of distance, provided that the surrounding site conditions lack ground effects or obstacles that either scatter or reflect noise. Noise from roadways in environments with major ground effects due to vegetation and loose soils may either absorb or scatter the sound yielding attenuation rates as high as 4.5 dBA for each doubling of distance. Other contributing factors that affect sound reception include meteorological conditions and the presence of manmade obstacles such as buildings and sound barriers.

Noise has a significant effect on the quality of life. An individual's reaction to a particular noise depends on many factors such as the source of the noise, its loudness relative to the background noise level, and the time of day. The reaction to noise can also be highly subjective; the perceived effect of a particular noise can vary widely among individuals in a community. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is perceivable, while 1 to 2 dBA changes generally are not perceived. Although the reaction to noise may vary, it is clear that noise is a significant component of the environment, and excessively noisy conditions can affect an individual's health and well-being. The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on a community can be organized into six broad categories:

sleep disturbance, permanent hearing loss, human performance and behavior, social interaction of communication, extra-auditory health effects, and general annoyance.

Community noise environments are typically represented by noise levels measured for brief periods throughout the day and night, or during a 24-hour period (e.g., CNEL). The one-hour period is especially useful for characterizing noise caused by short-term events, such as operation of construction equipment or concert noise (e.g.,  $L_{EQ}$ ). Community noise levels are generally perceived as quiet when the CNEL is below 50 dBA, moderate in the 50 to 60 dBA range, and loud above 60 dBA. Along major thoroughfares, roadside noise levels are typically between 65 and 75 dBA.

#### **4.9.1.2 Fundamentals of Groundborne Vibration**

Vibration consists of waves transmitted through solid material. Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be comprised of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hertz (Hz). The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz.

Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. Ambient and source vibration are often expressed in terms of the peak particle velocity (PPV) or root mean square (RMS) velocity in inches per second (in/sec) that correlates best with human perception. Groundborne vibration can be a 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 operating heavy earth-moving equipment.

#### **4.9.1.3 Existing Noise Conditions**

The primary noise source in the vicinity of the project alignment is roadway traffic, most notably along Ramona Expressway/SR 79, Warren Road, Sanderson Road, and North State Street (City of San Jacinto 2006). Existing facilities at the SJVRWRF generate noise near the proposed AWTF site and brine management system. Additional noise sources in the general project vicinity that are not directly related to transportation include those associated with commercial operations, such as on-site machinery and outdoor delivery truck activity, and agricultural operations, such as tractors and other related equipment. Noise from aircraft utilizing the Hemet-Ryan Airport, located approximately 4.4 miles south of the closest portion of the project alignment, may be audible at the project alignment.

#### **4.9.1.4 Noise-Sensitive Land Uses**

Noise-sensitive land uses (NSLUs) include uses where an excessive amount of noise would interfere with normal activities. Typical NSLUs include residences, public and private educational facilities, hospitals, convalescent homes, hotels/motels, daycare centers, passive recreational parks, and sensitive wildlife habitat. Sleep disturbance is the most critical concern for a NSLU on a 2-hour basis or longer compared to activities that are occupied only a portion of a day.

Existing land uses in the project vicinity include agricultural land, single-family residential development, undeveloped land, commercial development, parks, Mt. San Jacinto College, and the Soboba Springs Golf Course. Of these land uses, the primary NSLUs are single-family residences, which are located along the project's proposed conveyance pipeline alignments. Nearby parks and Mt. San Jacinto College are considered NSLUs as well.

#### **4.9.1.5 Vibration-Sensitive Land Uses**

Vibration-sensitive land uses include facilities where vibration would interfere with operations within the building, such as vibration-sensitive research and manufacturing, hospitals with vibration-sensitive equipment, and university research operations. The degree of sensitivity to vibration depends on the specific equipment that would be affected by the vibration. Electron microscopes and high-resolution lithography equipment function within certain scientific and manufacturing tolerances that can be compromised in high vibration environments. Certain fragile older or historic buildings may be vulnerable to damage from excessive vibration. Residential uses are also sensitive to excessive levels of vibration of either a regular or an intermittent nature.

Existing vibration-sensitive land uses along the project alignment include single-family residential uses.

### **4.9.2 Regulatory Framework**

#### **4.9.2.1 State**

##### **California Noise Control Act of 1973**

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, finds that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the state has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

##### **California Department of Transportation Vibration Guidance**

The Caltrans Transportation and Construction Vibration Guidance Manual (Caltrans 2013b) provides guidance for the analysis of environmental impacts due to groundborne noise and vibration relating to transportation and construction projects. The guidance is for impacts related to structural damage, as shown in Table 4.9-2, *Vibration Damage Potential Threshold Criteria*, and human annoyance, as shown in Table 4.9-3, *Vibration Annoyance Potential Threshold Criteria*.

**Table 4.9-2  
 VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA**

Structure and Condition	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

Source: Caltrans 2013b

\* Maximum PPV (in/sec)

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

**Table 4.9-3  
 VIBRATION ANNOYANCE POTENTIAL THRESHOLD CRITERIA**

Human Response	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

Source: Caltrans 2013b

\* Maximum PPV (in/sec)

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

#### 4.9.2.2 Local

The proposed project alignment is located within the jurisdictions of the City and County. For the proposed project, noise regulations and standards of both jurisdictions are considered. As described in Section 3.4, Standard Regulatory Requirements, under Section 53091(d) and (e) of the California Government Code, 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 or wastewater. Zoning ordinances of a county or city shall not apply to the location of construction of facilities for the production, generation, storage, treatment, or transmission of water. Therefore, the District is not subject to other local jurisdictional agencies' noise ordinances, nor is the District required to obtain variances from local agencies. However, for the purposes of evaluation, local agency noise ordinances are utilized as thresholds to analyze noise levels from construction and operation of proposed District facilities and potential impacts to sensitive receptors. Local ordinances are also used as guidelines to develop mitigation measures that would typically be used to minimize impacts to sensitive receptors. The City's and County's noise ordinances and regulations are presented below.

#### City of San Jacinto Municipal Code

Section 8.40.070 of the City's Municipal Code states that it is unlawful for any loud excessive or offensive noises or sounds to be created that would unreasonably disturb the peace and quiet of any residential neighborhood or be physically annoying to persons of ordinary sensitivity. Section 8.40.040

establishes exterior noise standards for different land uses, which are shown in Table 4.9-4, *City of San Jacinto Exterior Noise Level Standards*. In addition, a noise violation would occur when a maximum instantaneous noise level equal to the value of the noise standard plus 20 dBA for any period of time. In the event that the ambient noise level exceeds the noise standard, the maximum allowable noise level is increased to reflect the maximum ambient noise level.

**Table 4.9-4  
 CITY OF SAN JACINTO EXTERIOR NOISE LEVEL STANDARDS**

Type of Land Use	Allowed Noise Level (dBA L <sub>EQ</sub> ) 7:00 a.m. to 10:00 p.m.	Allowed Noise Level (dBA L <sub>EQ</sub> ) 10:00 p.m. to 7:00 a.m.
Single-family Residential	65	45
Multi-family Residential, Mobile Home Parks	65	50
Commercial Property	65	60
Residential Portion of Mixed Use	70	70
Manufacturing and Industrial, Other Uses	70	70

Source: City of San Jacinto Municipal Code Section 8.40.040  
 dBA = A-weighted decibel; L<sub>EQ</sub> = Equivalent Sound Level

For construction noise in the City, Section 8.40.090 stipulates that no person, while engaged in construction, remodeling, digging, grading, demolition or any other related building activity, shall operate any tool, equipment or machine in a manner that produces loud noise that disturbs a person of normal sensitivity who works or resides in the vicinity, or a peace officer, on any weekday or Saturday except between the hours of 7:00 a.m. and 7:00 p.m., or on anytime on a Sunday or federal holiday.

**City of San Jacinto General Plan Noise Element**

The Noise Element of the City’s General Plan provides a description of the existing noise conditions in the City, discusses future noise conditions from mobile and stationary noise sources, and sets forth the steps to be taken by the City to ensure that land use decisions include the consideration of noise impacts. To ensure that noise sources do not adversely affect sensitive receptors, the City uses land use compatibility standards when planning. Table 4.9-5, *City of San Jacinto General Plan Interior and Exterior Noise Standards*, summarizes the City’s noise standards for various types of land uses.

**Table 4.9-5  
CITY OF SAN JACINTO GENERAL PLAN INTERIOR AND EXTERIOR NOISE STANDARDS**

Land Use	Noise Standard (CNEL) Exterior	Noise Standard (CNEL) Interior
Residential – Single-family, multi-family, duplex, and mobile home	65	45
Residential – transient lodging, hotels, motels, nursing homes, hospitals, assisted care facilities	65	45
Private offices, churches, libraries, theaters, concert halls, meeting halls, schools	65	45
General commercial, office, retail, reception, restaurant	65	45
Light industrial <sup>1</sup>	-	-
Parks and playgrounds	65	50
Golf courses, outdoor spectator sports	70	-

Source: City of San Jacinto 2006

<sup>1</sup> Noise standards do not apply to light industrial areas.

CNEL = Community Noise Level Equivalent

### County of Riverside Municipal Code

Riverside Ordinance No. 847 establishes countywide standards regulating noise. Section 4 establishes general sound level standards for exterior noise levels within the boundaries of occupied properties. The exterior noise limits for each General Plan use designation are summarized in Table 4.9-6, *County of Riverside Exterior Sound Level Standards*.

**Table 4.9-6  
COUNTY OF RIVERSIDE EXTERIOR SOUND LEVEL STANDARDS**

General Plan Foundation Component	General Plan Land Use Designation Code	General Plan Land Use Designation Name	Density	Maximum Decibel Level (dBA L <sub>MAX</sub> ) Daytime (7:00 a.m. – 10:00 p.m.)	Maximum Decibel Level (dBA L <sub>MAX</sub> ) Nighttime (10:00 p.m. – 7:00 a.m.)
Community Development	EDR	Estate Density Residential	2 ac	55	45
	VLDR	Very Low Density Residential	1 ac	55	45
	LDR	Low Density Residential	½ ac	55	45
	MDR	Medium Density Residential	2-5 du/ac	55	45
	MHDR	Medium High Density Residential	5-8 du/ac	55	45
	HDR	High Density Residential	8-14 du/ac	55	45
	VHDR	Very High Density Residential	14-20 du/ac	55	45
	H'TDR	Highest Density Residential	20+ du/ac	55	45
	CR	Retail Commercial	N/A	65	55
	CO	Office Commercial	N/A	65	55
	CT	Tourist Commercial	N/A	65	55
	CC	Community Center	N/A	65	55
	LI	Light Industrial	N/A	75	55
	HI	Heavy Industrial	N/A	75	75

**Table 4.9-6 (cont.)  
COUNTY OF RIVERSIDE EXTERIOR SOUND LEVEL STANDARDS**

General Plan Foundation Component	General Plan Land Use Designation Code	General Plan Land Use Designation Name	Density	Maximum Decibel Level (dBA L <sub>MAX</sub> ) Daytime (7:00 a.m. – 10:00 p.m.)	Maximum Decibel Level (dBA L <sub>MAX</sub> ) Nighttime (10:00 p.m. – 7:00 a.m.)
Community Development	BP	Business Park	N/A	65	45
	PF	Public Facility	N/A	65	45
	SP	Specific Plan – Residential	N/A	55	45
		Specific Plan – Commercial	N/A	65	55
		Specific Plan – Light Industrial	N/A	75	55
		Specific Plan – Heavy Industrial	N/A	75	75
Public Facility	N/A	65	45		
Rural Community	EDR	Estate Density Residential	2 ac	55	45
	VLDR	Very Low Density Residential	1 ac	55	45
	LDR	Low Density Residential	½ ac	55	45
Rural	RR	Rural Residential	5 ac	45	45
	RM	Rural Mountainous	10 ac	45	45
	RD	Rural Desert	10 ac	45	45
Agriculture	AG	Agriculture	10 ac	45	45
Open Space	C	Conservation	N/A	45	45
	CH	Conservation Habitat	N/A	45	45
	REC	Recreation	N/A	45	45
	RUR	Rural	20 ac	45	45
	W	Watershed	N/A	45	45
	MR	Mineral Resources	N/A	75	45

Source: County of Riverside Municipal Code Ord. 847

dBA = A-weighted decibel; L<sub>MAX</sub> = maximum sound level; ac = acre; du/ac = dwelling unit per acre

Section 2 provides exemptions for construction activities from the noise limits in Table 4.9-4. For projects located within one-quarter of a mile from an inhabited dwelling, construction noise is exempt if construction occurs outside the hours of 6:00 p.m. and 6:00 a.m. from June to September and 6:00 p.m. and 7:00 a.m. from October to May. Projects located one-quarter of a mile or more from an inhabited dwelling are exempt with no hour restrictions.

### County of Riverside General Plan Noise Element

The Noise Element of the County of Riverside General Plan (County of Riverside 2015) provides 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. Table 4.9-7, *County of Riverside Land Use Compatibility for Community Noise Exposure*, summarizes the County’s exterior land use-noise compatibility guidelines. Shading in this table represents the noise exposure level considered compatible for each land use category.

**Table 4.9-7**  
**COUNTY OF RIVERSIDE LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE**

Land Use Category	55*	60*	65*	70*	75*	80*	85*
Residential – Low Density Single Family, Duplex, and Mobile Homes							
Residential – Multiple Family							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, and Nursing Homes							
Auditoriums, Concert Halls, 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							

Source: County of Riverside 2015

Notes: Light shading represents the maximum noise exposure level considered normally acceptable for each land use category. Dark shading represents the maximum noise exposure level considered conditionally acceptable for each land use category.

\* Community Noise Exposure Level (L<sub>DN</sub> or CNEL, dBA)

L<sub>DN</sub> = Day-Night Sound Level; CNEL = Community Noise Equivalent Level; dBA = A-weighted decibel

The interior noise limit for residential land uses would be 45 CNEL in accordance with the California Building Standards, per County Noise Element Policy N 14.1.

Policy N 2.3 of the County of Riverside General Plan Noise Element requires projects to mitigate residential exterior and interior noise to the levels listed in Table 4.9-8, *Stationary Source Residential Land Use Standards*, to the extent feasible for stationary sources.

**Table 4.9-8**  
**STATIONARY SOURCE RESIDENTIAL LAND USE STANDARDS**

Time Period	Standard (dBA L <sub>EQ</sub> [10 minute]) Interior	Standard (dBA L <sub>EQ</sub> [10 minute]) Exterior
10:00 p.m. to 7:00 a.m.	40	45
7:00 a.m. to 10:00 p.m.	55	65

Source: County of Riverside 2015

dBA = A-weighted decibel; L<sub>EQ</sub> = Equivalent Sound Level

### 4.9.3 Thresholds of Significance

The following criteria from Appendix G of the *CEQA Guidelines* are used as thresholds of significance to determine the impacts of the proposed project as related to noise. The proposed project would have a significant impact if it would:

1. Result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
2. Result in the generation of excessive groundborne vibration or groundborne noise levels; or

3. Expose people residing or working in the project area to excessive noise levels by being 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.

#### 4.9.4 Project Impacts and Mitigation

##### 4.9.4.1 Issue 1: Increase in Ambient Noise

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

#### Impact Analysis

##### Construction

The proposed project would generate temporary noise associated with construction of its various components. Construction noise levels at and near facility locations would fluctuate depending on the particular type, number, and use duration of construction equipment for each activity. Construction-related material haul trips would temporarily slightly increase ambient noise levels along haul routes, depending on the number of haul trips and types of vehicles used. Table 4.9-9, *Typical Noise Levels from Anticipated Construction Equipment*, shows typical noise levels associated with various types of noise-generating equipment that are anticipated to be required for project construction.

**Table 4.9-9  
 TYPICAL NOISE LEVELS FROM ANTICIPATED CONSTRUCTION EQUIPMENT**

Unit	Percent Operating Time	dBA L <sub>MAX</sub> at 50 feet	dBA L <sub>EQ</sub> at 50 feet
Backhoe	40	77.6	73.6
Breaker	20	90.3	80.3
Compactor	20	83.2	76.2
Compressor	40	77.7	73.7
Concrete Mixer Truck	40	78.8	74.8
Concrete Pump Truck	20	81.4	74.4
Crane	16	80.6	76.7
Dozer	40	81.7	77.7
Dump Truck	50	76.5	72.5
Excavator (medium)	40	78.0	74.0
Excavator (large)	40	80.7	76.7
Front-End Loader	40	79.1	75.1
Grader	40	85.0	81.0
Paver	50	77.2	74.2
Roller	20	80.0	73.0
Welder	40	74.0	70.0

Source: United States Department of Transportation (USDOT) 2008  
 dBA = A-weighted decibel; L<sub>MAX</sub> = Maximum Sound Level; L<sub>EQ</sub> = Equivalent Sound Level

These pieces of equipment would not all operate at the same time or location, nor would they be in constant use over the course of a construction day. In addition, noise levels from point sources generally

attenuate at a rate of 6 dBA per doubling of distance. For example, 84 dBA  $L_{EQ}$  at a reference distance of 50 feet would attenuate by 6 dBA to 78 dBA  $L_{EQ}$  at 100 feet, and by another 6 dBA to 72 dBA  $L_{EQ}$  at 200 feet.

While construction activities associated with the proposed project facilities would be short-term, activity noise would be evaluated against, but not subject to, the noise regulations of the City and the County, which limit the allowable period of construction hours, but do not establish construction noise level limits:

- The City of San Jacinto Municipal Code limits construction activity to weekdays and Saturdays between the hours of 7:00 a.m. and 7:00 p.m.; and
- The County of Riverside Municipal Code limits construction activity within one-quarter mile of an inhabited dwelling unit to between the hours of 6:00 a.m. and 6:00 p.m. during the months of June through September and to between the hours of 7:00 a.m. and 6:00 p.m. during the months of October through May.

#### *Off-road Construction Equipment Noise*

Construction of the brine management system would require substantial grading which would likely involve the simultaneous on-site use of numerous types of heavy construction equipment, including, but not limited to, dozers, excavators, graders, and dump trucks. Though multiple pieces may operate simultaneously, they would be spread out across the relatively large (approximately 20-acre) site and would not combine to emit noise at one concentrated location. In addition, the brine management system site is surrounded by agricultural/vacant land to the west, north, and east, and the existing SJVRWRF to the south. There are no NSLUs in proximity to the brine management system site that would be exposed to noise from the operation of heavy off-road equipment during grading, or other less noise-intensive construction activities at the brine management system site. The nearest NSLU, a single-family residence located south of the intersection of Warren Road and Upperline Avenue, is over 4,000 feet away.

Similarly, construction activities at the AWTF site, most notably grading (although to a lesser extent than that for the brine management system) and physical building construction, would generate noise through the use of heavy off-road construction equipment; however, there are no NSLUs in proximity to the AWTF site that would be exposed to such construction noise.

Unlike construction at the brine management system and AWTF site, construction of the project's conveyance pipelines, including sliplining the existing 18-inch pipeline and installing the new 36-inch pipeline, would occur in proximity to residential NSLUs within the city, in some instances adjacent to residential properties (refer to Figures 2-8c, 2-8d, 2-8e, and 2-8h). The primary noise generating activities associated with pipeline construction are anticipated to be excavation for the sliplining insertion and receiving pits for the 18-inch pipeline and trenching for the new 36-inch pipeline. Both activities would likely involve the simultaneous use of an excavator and loader, which are together estimated to generate a noise level of 87.0 dBA  $L_{EQ}$  at 20 feet. A breaker would likely be used to break up roadway asphalt and sidewalk concrete when insertion and/or receiving pits are located in paved areas within the right-of-way. At a distance of 20 feet, a breaker is estimated to generate a noise level of 91.2 dBA  $L_{EQ}$ . Due to the linear nature of the pipelines, however, construction activities would continuously progress down the pipeline alignments (at an average rate of 80 feet per day for the 36-inch pipeline) and noise generated at any one residence would be limited to several days.

Noise associated with construction of the Alessandro Blending Station is anticipated to be relatively minimal in comparison to construction of the conveyance pipelines, as construction would involve minor grading, laying of a concrete pad, and installing pipeline connections. There are also no NSLUs in proximity to the proposed Alessandro Blending Station site. The nearest NSLUs, single-family residences located south of the intersection of Ramona Expressway and San Jacinto Avenue, are over 2,500 feet away.

Noise generation from construction of the proposed project would be temporary. Impacts associated with construction of the brine management system, AWTF, and conveyance pipelines that would occur in the city of San Jacinto within the construction noise time restriction areas depicted on Figure 4.9-1, *Construction Noise Time Restriction Areas*, would be less than significant as long as construction occurs within the allowable construction hours of the City's Municipal Code, which are between the hours of 7:00 a.m. and 7:00 p.m. To ensure that construction occurs within the allowable construction hours and complies with the City's Municipal Code as related to construction, mitigation measure MM-NOI-1, detailed below, would be required. Construction of the Alessandro Blending Station and portions of the conveyance pipelines that would occur within the County of Riverside would not be within one-quarter mile of an inhabited dwelling unit; therefore, these construction activities do not have hourly restrictions, and impacts would be less than significant.

#### *Construction Traffic Noise*

The project would generate construction-related traffic, including material transport trucks and worker commute vehicles, along roadways in proximity to the project's various construction sites. These roadways generally either would not include adjacent NSLUs (e.g., Sanderson Avenue north of Cottonwood Avenue, which would provide access to the AWTF and brine management system sites) or would include existing high traffic levels where project-added traffic would not generate a perceptible increase in noise levels (e.g., SR 79 and Ramona Expressway, which would provide access to the work sites associated with the 18-inch pipeline to be sliplined, the 36-inch pipeline, and the Alessandro Blending Station). In addition, construction-related traffic would be temporary. As such, impacts would be less than significant.

#### **Operation**

Operation of the proposed project components would generate noise primarily from the process equipment at the AWTF and brine management system, namely the various pumps. Most of this equipment would be located within the Process Control building at AWTF site, which would attenuate noise from equipment operation. Some equipment, including pumps and a standby generator, would be located outside of the building. The standby generator would only be used in the event of utility power failure and would not generate constant noise. Similarly, inter-pond transfer pumps would be used intermittently at the brine management system to transfer brine waste between the ponds when necessary and would not be a constant source of operational noise. While the various pieces of operational equipment would generate noise, there are no NSLUs adjacent to the AWTF site or brine management system that would be subject to the operational noise, as agricultural land is located to the north, west, and east, and the existing SJVRWRF is located to the south. The nearest NSLU, a single-family residence located south of the intersection of Warren Road and Upperline Avenue, is over 4,000 feet away. In addition, the area near the proposed AWTF and brine management system is already subject to noise similar to what would be generated by proposed project operation, from operation of

the existing SJVRWRF. The project's conveyance pipelines would be located below ground and would not generate audible noise.

Operational vehicular traffic associated with the project would not generate substantial noise. Vehicular traffic would be limited to regular commute trips for up to five staff members, occasional public trips for AWTF tours, and occasional truck trips for chemical deliveries. This amount of traffic would not result in a perceptible increase in noise levels on local roadways. The project's operational noise impacts would be less than significant.

### **Mitigation Measures**

The following mitigation measure would be implemented during project construction to minimize noise impacts to surrounding noise-sensitive land uses:

**MM-NOI-1 Construction Noise Hours.** Construction activities in the City of San Jacinto within the construction noise time restriction areas depicted on Figure 4.9-1, *Construction Noise Time Restriction Areas*, shall occur only on weekdays and Saturdays between the hours of 7:00 a.m. and 7:00 p.m.

### **Significance After Mitigation**

With implementation of MM-NOI-1, temporary construction noise impacts would be less than significant.

#### **4.9.4.2 Issue 2: Vibration**

*Would the proposed project generate excessive groundborne vibration or groundborne noise levels?*

### **Impact Analysis**

#### **Construction**

The primary source of vibration during project construction would be a vibratory roller, which would likely be used to achieve soil compaction for building foundations and new pavements at the AWTF site. There are no vibration-sensitive receptors in the vicinity of the AWTF site, and therefore use of a vibratory roller at this location would not generate excessive groundborne vibration that would affect people or vibration-sensitive equipment. Soil compaction would also be required prior to repaving areas in roadways excavated for sliplining insertion and pulling pits. Such areas would be located adjacent to residential properties; however, based on the size of the pits (up to approximately 550 square feet) it is anticipated that a plate compactor would be used instead of a vibratory roller. Plate compactors are handheld units that do not generate measurable vibration beyond 10 or 15 feet; therefore, residents would not be exposed to perceptible groundborne vibration levels. Impacts associated with construction-generated vibration would be less than significant.

#### **Operation**

Operation of the proposed project facilities would not include components that would generate substantial groundborne vibration. Thus, no impacts associated with operational vibration are anticipated to occur.

## **Mitigation Measures**

Impacts associated with vibration would be less than significant; therefore, no mitigation is necessary.

### **4.9.4.3 Issue 3: Aircraft Noise**

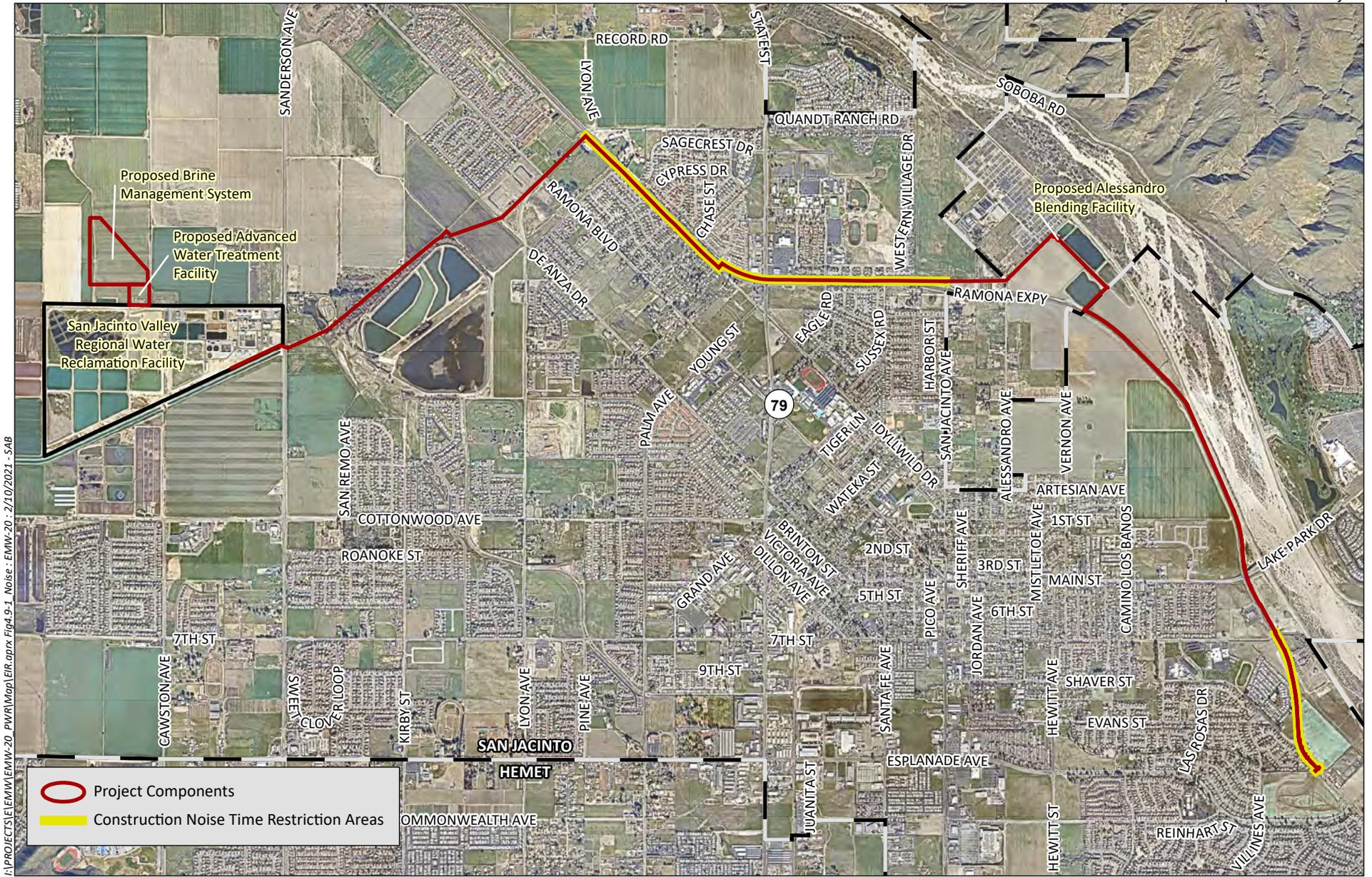
*Would the proposed project expose people residing or working in the project area to excessive noise levels by being located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport?*

## **Impact Analysis**

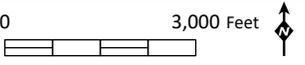
The Hemet-Ryan Airport is located approximately 4.4 miles from the closest portion of the project alignment. No portion of the project alignment is within either the existing or future mapped noise contours of the Hemet-Ryan Airport (Riverside County Airport Land Use Commission 2017). As such, while distant aircraft activity may be audible, neither the project's temporary construction workers nor permanent facility workers would be exposed to excessive aircraft noise. Impacts would be less than significant.

## **Mitigation Measures**

Impacts associated with aircraft noise would be less than significant and no mitigation is necessary.



F:\PROJECTS\EMM\EMW-20\_PWRI\Map\ER.aprx Fig4.9-1\_Noise : EMM-20 : 2/10/2021 - SAB



Source: Aerial (NearMap, 2020)

## 4.10 TRANSPORTATION

This section addressed the potential transportation impacts of the proposed project. The following discussion includes a description of existing conditions as related to transportation, a summary of applicable regulations, and an evaluation of the proposed project's potential environmental effects associated with traffic circulation, generation of VMT, traffic hazards, and emergency access.

### 4.10.1 Existing Conditions

#### 4.10.1.1 Regional Roadway Circulation System

The proposed project is located within western Riverside County, specifically the city of San Jacinto and an area of unincorporated Riverside County. The regional transportation system where vehicles associated with construction and operation of the proposed project would travel to access the project areas consists of the following regional highways:

- **State Route 79** – SR 79 is a north-south freeway that connects I-10 in the city of Beaumont (Riverside County) south to I-8 in the community of Descanso (San Diego County). SR 79 intersects SR 74 in the city of Hemet and travels through the city of San Jacinto. The project alignment runs along the portion of SR 79 between North Lyon Avenue and North State Street in the city of San Jacinto (refer to Figure 2-3).
- **Ramona Expressway** – Ramona Expressway is a north-south roadway ranging between four and six lanes in the project area that connects I-215 in the city of Perris (Riverside County) southeast to SR 74 in the unincorporated community of Valle Vista (Riverside County). The project alignment runs along the portions of Ramona Expressway from North State Street to approximately North San Jacinto Avenue and from approximately North Vernon Avenue to approximately 1,000 feet north of East Esplanade Avenue.
- **State Route 74** – SR 74 is an east-west freeway that connects I-5 in the city of San Juan Capistrano (Orange County) east to the city of Palm Desert (Riverside County). SR 74 runs through the city of Hemet approximately 1.7 miles south of the southeastern-most portion of the project alignment.

#### 4.10.1.2 Local Roadway Circulation System

The proposed project alignment travels along North Lyon Avenue, SR 79, and Ramona Expressway. It also intersects or is located near North Sanderson Avenue, North State Street, North San Jacinto Avenue, Main Street, East 7<sup>th</sup> Street, and East Esplanade Avenue. Project-related vehicles would likely travel along these roadways during project construction and operation. Roadway descriptions with classifications per the City's General Plan Circulation Element (City of San Jacinto 2006) are as follows (SR 79 and Ramona Expressway are described above):

- **Lyon Avenue** – Lyon Avenue is a north-south two-lane collector with a painted median that connects SR 79 in the city of San Jacinto south to Chambers Street in the city of Hemet. The project alignment is within the portion of Lyon Avenue from approximately Ramona Boulevard to SR 79.

- **Sanderson Avenue** – Sanderson Avenue is a north-south four-lane urban arterial with a painted median. It begins at Domenigoni Parkway in the city of Hemet and travels north through the city of San Jacinto until it merges with SR 79 at Ramona Expressway. The existing SJVRWRF is located along Sanderson Avenue.
- **State Street** – State Street is a north-south four-lane major highway with a two-way left-turn lane and raised landscaped medians north of Ramona Expressway. State Street traverses through the middle of the cities of San Jacinto and Hemet. The project alignment crosses State Street at its intersection with SR 79/Ramona Expressway.
- **San Jacinto Avenue** – The segment of San Jacinto Avenue near the project alignment (from Ramona Expressway to Main Street) is a north-south two-lane secondary highway with varying median types. Overall, San Jacinto Avenue travels from Ramona Expressway south to just past the southern limit of the city of Hemet. The project alignment crosses San Jacinto Avenue at its intersection with Ramona expressway.
- **Main Street** – The segment of Main Street near the project alignment (east of San Jacinto Avenue) is an east-west secondary highway that varies between two and three travel lanes and includes a two-way left-turn lane. Overall, it travels from Ramona Expressway west to 7<sup>th</sup> Street, just east of State Street in the middle of the city of San Jacinto. The project alignment crosses Main Street at its intersection with Ramona Expressway.
- **7<sup>th</sup> Street** – The segment of 7<sup>th</sup> Street near the project alignment (east of San Jacinto Avenue) is an east-west two-lane secondary highway with a painted median. Overall, it travels from Ramona Expressway west through the middle of the city of San Jacinto to near the western city limit. The project alignment crosses 7<sup>th</sup> Street at its intersection with Ramona Expressway.
- **Esplanade Avenue** – Esplanade Avenue is east-west four-lane major highway with a painted median near the project alignment. It travels from Ramona Expressway west through the middle of the city of San Jacinto to the western city limit. The Mountain Avenue West Recharge Basin is located at the intersection of Ramona Expressway and Esplanade Avenue.

#### 4.10.1.3 Public Transportation

The Riverside Transit Agency (RTA) provides public transportation throughout Riverside County and operates fixed bus routes throughout a 2,000-square-mile service area. Bus routes that serve the city of San Jacinto and provide local and regional access include Routes 31, 32, 42, 74, and 217.

#### 4.10.1.4 Bicycle and Pedestrian Facilities

The City includes a system of Class I and Class II bikeways on and adjacent to roadways. Class I bikeways are two-way bike paths on a right-of-way that is separated from the roadway right-of-way. Class II bikeways are one-way delineated bike lanes within the shoulder of the roadway right-of-way. Within the city, there is one Class I bikeway, which is located on the west side of Ramona Expressway between San Jacinto Avenue and Main Street. In the vicinity of the project alignment, Class II bikeways are present in both directions on Ramona Expressway between Lyon Avenue and San Jacinto Avenue.

Pedestrian facilities (sidewalks) in the vicinity of the project alignment are present along Ramona Expressway between Chase Street and San Jacinto Avenue, State Street, San Jacinto Avenue, Main Street, 7<sup>th</sup> Street, and Esplanade Avenue.

## **4.10.2 Regulatory Framework**

### **4.10.2.1 Federal**

#### **Americans with Disabilities Act**

The 1990 Americans with Disabilities Act (ADA) is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability. Pedestrian facility design must comply with the accessibility standards identified in the ADA, which applies to all projects involving new or altered pedestrian facilities. The scoping and technical provisions for new construction and alterations identified in the ADA Accessibility Guidelines can be used to help design pedestrian facilities that are ADA compliant. For example, Title II-6.600 of the Technical Assistance Manual states, “When streets, roads, or highways are newly built or altered, they must have ramps or sloped areas whenever there are curbs or other barriers to entry from a sidewalk or path.”

### **4.10.2.2 State**

#### **California Department of Transportation Standards**

Caltrans is responsible for planning, designing, building, operating, and maintaining California’s state road system. Caltrans sets standards, policies, and strategic plans that aim to do the following: (1) provide the safest transportation system in the nation for users and workers, (2) maximize transportation system performance and accessibility, (3) efficiently deliver quality transportation projects and services, (4) preserve and enhance California’s resources and assets, and (5) promote quality service. Caltrans has the discretionary authority to issue special permits for the use of state highways for other than normal transportation purposes. Caltrans also reviews all requests from utility companies, developers, volunteers, nonprofit organizations, and others desiring to conduct various activities within state highway rights-of-way. The Caltrans Highway Design Manual, prepared by the Office of Geometric Design Standards (Caltrans 2008), establishes uniform policies and procedures to carry out highway design functions. Caltrans has also prepared a Guide for the Preparation of Traffic Impact Studies (Caltrans 2002). Objectives for the preparation of this guide include providing consistency and uniformity in the identification of traffic impacts generated by local land use proposals.

### **4.10.2.3 Regional**

#### **Southern California Association of Governments 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy**

SCAG is the designated Metropolitan Planning Organization for Imperial, Los Angeles, Orange, Riverside, Ventura, and San Bernardino Counties. On April 7, 2016, SCAG adopted its 2016-2040 RTP/SCS, which presents the transportation vision for the SCAG region through the year 2040 and provides a long-term investment framework for addressing the region’s transportation and related challenges. The RTP/SCS focuses on maintaining and improving the transportation system through a balanced approach and considers economic, environmental, public health, improved coordination between land-use decisions

and transportation investments, and strategic expansion of the system to accommodate future growth (SCAG 2016).

#### **4.10.2.4 Local**

##### **Riverside County Congestion Management Program**

The Riverside County Transportation Commission (RCTC), with support from the County, prepares and implements the Riverside Congestion Management Program (CMP), created in compliance with Proposition 111 that aims to more directly link land use, transportation, and air quality to promote reasonable growth management programs. The CMP was most recently updated in 2011. The purpose of the state-mandated CMP is to monitor roadway congestion and assess the overall performance of the region's transportation system. Based upon this assessment, the CMP contains specific strategies and improvements to reduce traffic congestion and improve the performance of a multi-modal transportation system. Examples of strategies include increased emphasis on public transportation and rideshare programs, mitigating the impacts of new development, and better coordinating land use and transportation planning decisions.

##### **City of San Jacinto General Plan Circulation Element**

The Circulation Element of the City of San Jacinto's General Plan guides the continued development and improvement of the circulation system to support existing and planned development identified in the Land Use Element. While there are no goals and policies applicable to the proposed project, the Circulation Element identifies designated truck routes for the transportation of goods and freight within the city to decrease noise and congestion impacts cause by truck trips in urban areas. To avoid these impacts, truck routes are identified on Ramona Expressway and SR 79 and, where feasible, should be consolidated on arterial roadways through the city to minimize noise and congestion impacts to residential uses.

#### **4.10.3 Thresholds of Significance**

The following criteria from Appendix G of the *CEQA Guidelines* are used as thresholds of significance to determine the impacts of the proposed project as related to transportation. The proposed project would have a significant impact if it would:

1. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
2. Conflict or be inconsistent with *CEQA Guidelines* section 15064.3, subdivision (b);
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
4. Result in inadequate emergency access.

## 4.10.4 Project Impacts and Mitigation

### 4.10.4.1 Issue 1: Traffic Circulation

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

#### Impact Analysis

Construction of the project's AWTF, brine management system, conveyance pipelines, and Alessandro Blending Station would result in increased vehicular traffic on regional and local roadways. Construction traffic would be generated by commuting construction workers and by trucks hauling material and equipment to and from the work areas. Because the project includes various components in different locations, not all construction traffic would occur on the same roadway segments or at the same time. Construction vehicles and trucks would use the regional circulation system and roadways in the city, primarily Sanderson Avenue, SR 79, and Ramona Expressway. The use of these roadways by project-generated haul trucks would be in accordance with the City's General Plan Circulation Element, which designates Ramona Expressway and SR 79 as the primary trucking routes that serve the city and surrounding area. While construction of the project would generate additional traffic, traffic levels would not substantially increase in a manner that would cause congestion or decrease the performance of the circulation system. In addition, project-generated construction traffic would be temporary. Following the completion of construction, the project's trip generation would be limited to up to five regular employees commuting to the AWTF, occasional chemical deliveries to the AWTF, and occasional trips made by the public for tours of the AWTF.

Construction of the project's proposed conveyance pipelines that would occur within and adjacent to roadways, specifically SR 79 and Ramona Expressway (refer to Figure 4.10-1a through f, *Pipeline Impacts within the Public Right-of-Way*), would have the potential to temporarily affect the circulation system, including that for motorists, bicyclists, and pedestrians. Construction of the conveyance pipelines within the roadway rights-of-way of SR 79 and Ramona Expressway would last less than one year and would not affect a given portion of the roadways for the entire construction duration, as construction of the pipelines would continuously move along the linear alignment. Construction would involve partial and/or full lane closures, bicycle lane closures, and sidewalk closures in areas where excavation would occur for the insertion and receiving pits that would be used for sliplining of the existing 18-inch pipeline and where trenching would occur for installation of the new 36-inch pipeline. It is possible that the at-grade paved median within Ramona Expressway could serve as a traffic lane, which would allow the full number of lanes in each direction to be maintained during construction. Regardless, the proposed project would potentially result in significant impacts to the circulation system during construction.

Upon the completion of construction, the conveyance pipelines would be located below ground and disturbed roadway and sidewalk areas would be restored to pre-existing conditions. In addition, the project's aboveground components, including the AWTF, brine management system, and Alessandro Blending Station, would not be located adjacent to public roadways or interfere with roadway functions.

#### Mitigation Measures

The following mitigation measure would be implemented during project construction to minimize traffic impacts:

**MM-TRA-1 Traffic Control Plan.** Prior to the start of construction of the portions of the conveyance facilities that would be located within roadway rights-of-way, the District shall require the construction contractor to prepare a Traffic Control Plan (TCP) and coordinate with the agency of jurisdiction (City of San Jacinto or County of Riverside), as applicable, to address vehicular traffic during construction of the project within the public rights-of-way of the affected jurisdiction(s), including bicycle, pedestrian, and transit facilities. The TCP shall show all signage, striping, delineated detours, flagging operations, and any other devices that will be used during construction to guide motorists, bicyclists, and pedestrians safely through the construction area and allow for adequate access and circulation. The TCP shall also ensure that congestion and traffic delay are not substantially increased as a result of the construction activities. Further, the TCP shall include detours and/or alternative routes for bicyclists using on-street bicycle lanes as well as for pedestrians using adjacent sidewalks. The District shall provide written notice at least two weeks prior to the start of construction to owners/occupants along roadways to be affected during construction.

During construction, the District shall maintain continuous vehicular and pedestrian access to affected residential driveways from the public right-of-way to the private property line, except where necessary construction precludes such continuous access for reasonable periods of time. Access shall be reestablished at the end of the workday. If a driveway needs to be closed or interfered with as described above, the District shall notify the owner or occupant of the closure of the driveway at least five working days prior to the closure. The TCP shall include provisions to ensure that the construction of the conveyance pipelines do not interfere unnecessarily with the work of other agencies such as mail delivery, school buses, and municipal waste services.

The District shall also notify local emergency responders of planned partial or full lane closures or blocked access to roadways or driveways 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 for emergency response providers adequate time to prepare for lane closures.

### **Significance After Mitigation**

Implementation of MM-TRA-1 would allow for continued adequate circulation during project construction; therefore, potential impacts to the circulation system would be less than significant.

#### **4.10.4.2 Issue 2: Vehicle Miles Traveled**

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

### **Impact Analysis**

CEQA Guidelines Section 15064.3 subdivision (b) sets forth specific criteria for determining the significance of transportation impacts. Subdivision (b)(1) pertains to land use projects and describes factors that may indicate whether the amount of a land use project's VMT may be significant or not. Because project-related traffic would be limited to temporary construction traffic and a relatively small

number of operational trips, the project would not generate a substantial increase in VMT and would therefore not conflict or be inconsistent with *CEQA Guidelines* Section 15064.3. Impacts would be less than significant.

### **Mitigation Measures**

Impacts associated with inconsistencies with *CEQA Guidelines* Section 15064.3 would be less than significant and no mitigation is necessary.

#### **4.10.4.3 Issue 3: Hazardous Design Features**

*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)?*

### **Impact Analysis**

Construction of the project's proposed conveyance pipelines would occur within public roadway rights-of-way (refer to Figure 4.10-1a through f) and would therefore result in partial and/or full lane closures and the presence of construction equipment and workers, which could result in hazardous roadway conditions; therefore, project construction within roadway rights-of-way would result in potentially significant impacts related to traffic hazards. Construction of the other project components would occur away from public roadways and would not increase roadway hazards.

Following the completion of construction, the project's conveyance pipelines would be located below ground within the roadways and would not represent hazardous conditions. A new access road would be provided along the northern boundary of the SJVRWRF to provide access to the AWTF and brine management system. The access road would connect to North Sanderson Avenue. Ingress to and egress from the access road would be similar to the existing access road to the SJVRWRF, which is located approximately 500 feet south of the proposed new access road. As with the existing access road, safe movement for vehicles traveling north and entering the access road from North Sanderson Avenue would be achieved via an existing two-way left turn lane located within North Sanderson Avenue. Visibility in both directions for drivers exiting the access road onto North Sanderson Avenue would be provided. As such, the proposed access road's intersection with North Sanderson Avenue would not represent a substantial hazard for those accessing the AWTF or for drivers along North Sanderson Avenue. Impacts related to hazardous design features during project operation would be less than significant.

### **Mitigation Measures**

MM-TRA-1 would be implemented during project construction to minimize potential impacts associated with hazardous traffic conditions.

### **Significance After Mitigation**

With implementation of MM-TRA-1, potential impacts associated with hazardous traffic conditions would be less than significant.

#### **4.10.4.4 Issue 4: Emergency Access**

*Would the proposed project result in inadequate emergency access?*

##### **Impact Analysis**

Construction of the project's proposed conveyance pipelines would occur within public roadway rights-of-way (refer to Figure 4.10-1a through f) and would therefore result in partial and/or full lane closures, which could interfere with emergency access along SR 79 and Ramona Expressway and to connecting roadways; therefore, project construction within roadway rights-of-way would result in potentially significant impacts related to emergency access.

Following the completion of construction, the project facilities would not interfere with emergency access. The conveyance pipelines would be located below ground, and the additional project components, including the AWTF, brine management system, and Alessandro Blending Station, would be located away from roadways and other uses requiring emergency access and would not physically impede the movement of emergency vehicles. In addition, the project would not generate a high level of traffic on local roadways that would interfere with emergency response.

During project operations, emergency access to the AWTF site would be provided via an access road that would be constructed north of the SJVRWRF and connect to North Sanderson Avenue. The AWTF site would be designed and constructed to accommodate fire trucks around the Process and Control Building. Two access points would be provided along the south side of the AWTF site and would connect to a 24-foot-wide access road that would surround the site. The access road would include a 65-foot turning radius for fire trucks. The AWTF access road would also provide connection to the brine management system. The other project components, including the belowground conveyance pipelines and Alessandro Blending Station would not require emergency response, so access to these facilities is not required. The project's potential impacts associated with emergency access during project operations would be less than significant.

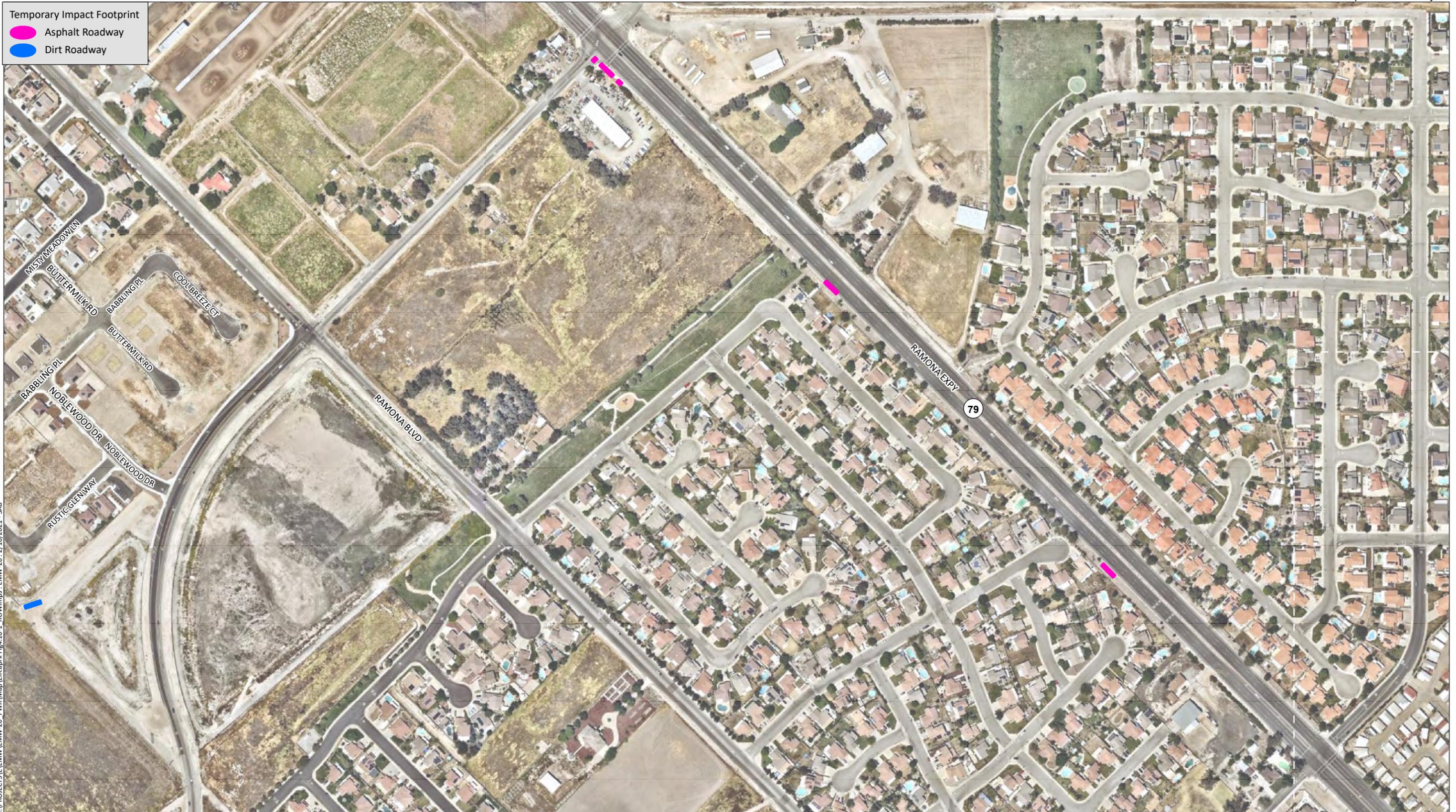
##### **Mitigation Measures**

MM-TRA-1 would be implemented during project construction to minimize potential impacts associated with inadequate emergency access.

##### **Significance After Mitigation**

With implementation of MM-TRA-1, potential impacts associated with emergency access during project construction would be less than significant.

Temporary Impact Footprint  
Asphalt Roadway  
Dirt Roadway



I:\PROJECTS\EMM\EMW-20\_PWR\Map\LEIR\aprx\_Fig\_4.10-1\_ROW\mfs: EMM-20: 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

0 300 Feet



**HELIX**  
Environmental Planning

### Pipeline Impacts within the Public Right-of-way

Figure 4.10-1a

Temporary Impact Footprint  
Asphalt Roadway



I:\PROJECTS\EMM\EMW-20\_PWR\Map\ER.aprx Fig. 4.10-1 ROW Imps : EMM-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

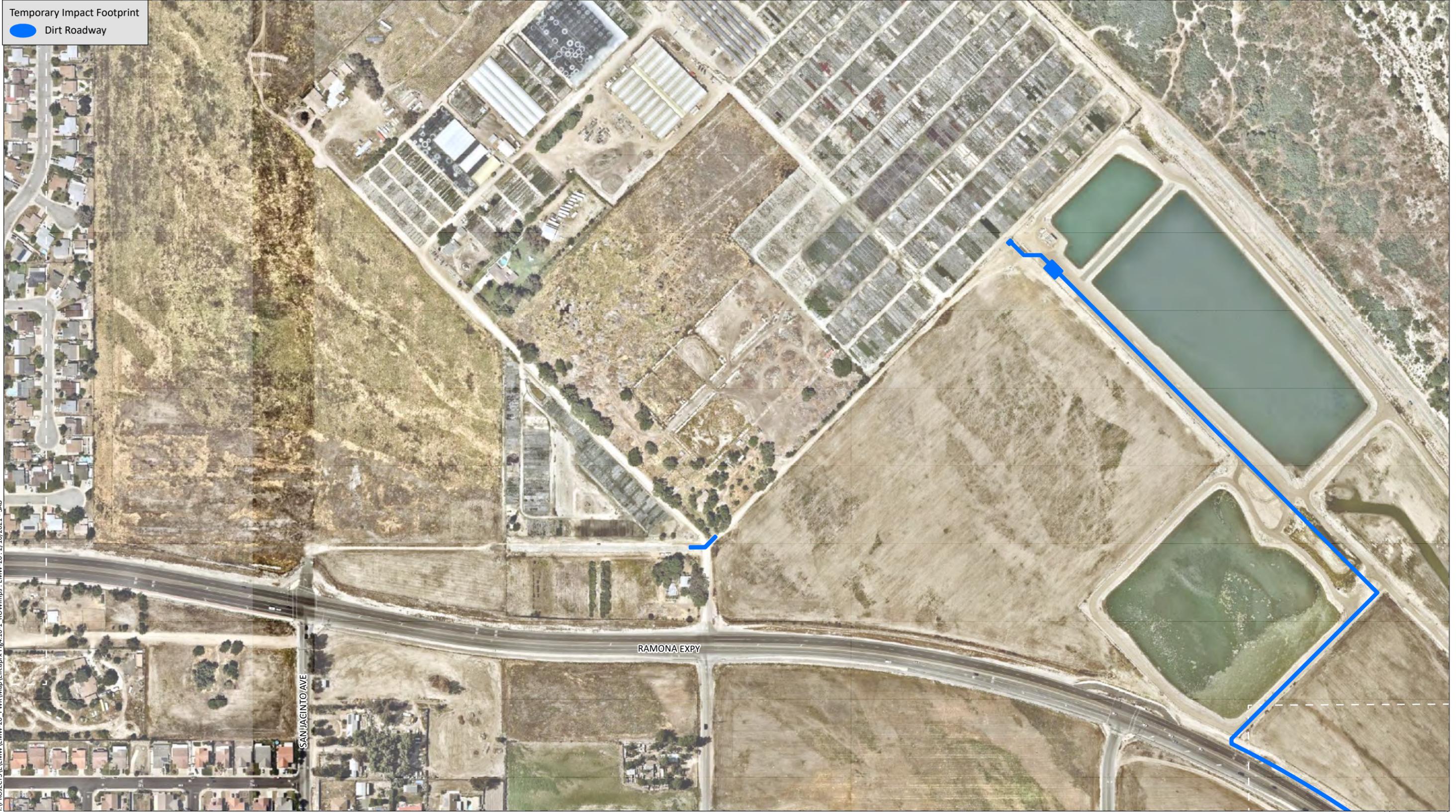


**HELIX**  
Environmental Planning

**Pipeline Impacts within the Public Right-of-way**

Figure 4.10-1b

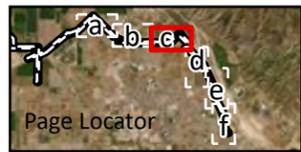
Temporary Impact Footprint  
Dirt Roadway



I:\PROJECTS\EMM\EMW-20\_PWR\Map\ER.aprx Fig. 4.10-1c ROW Impacts: EMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

0 300 Feet



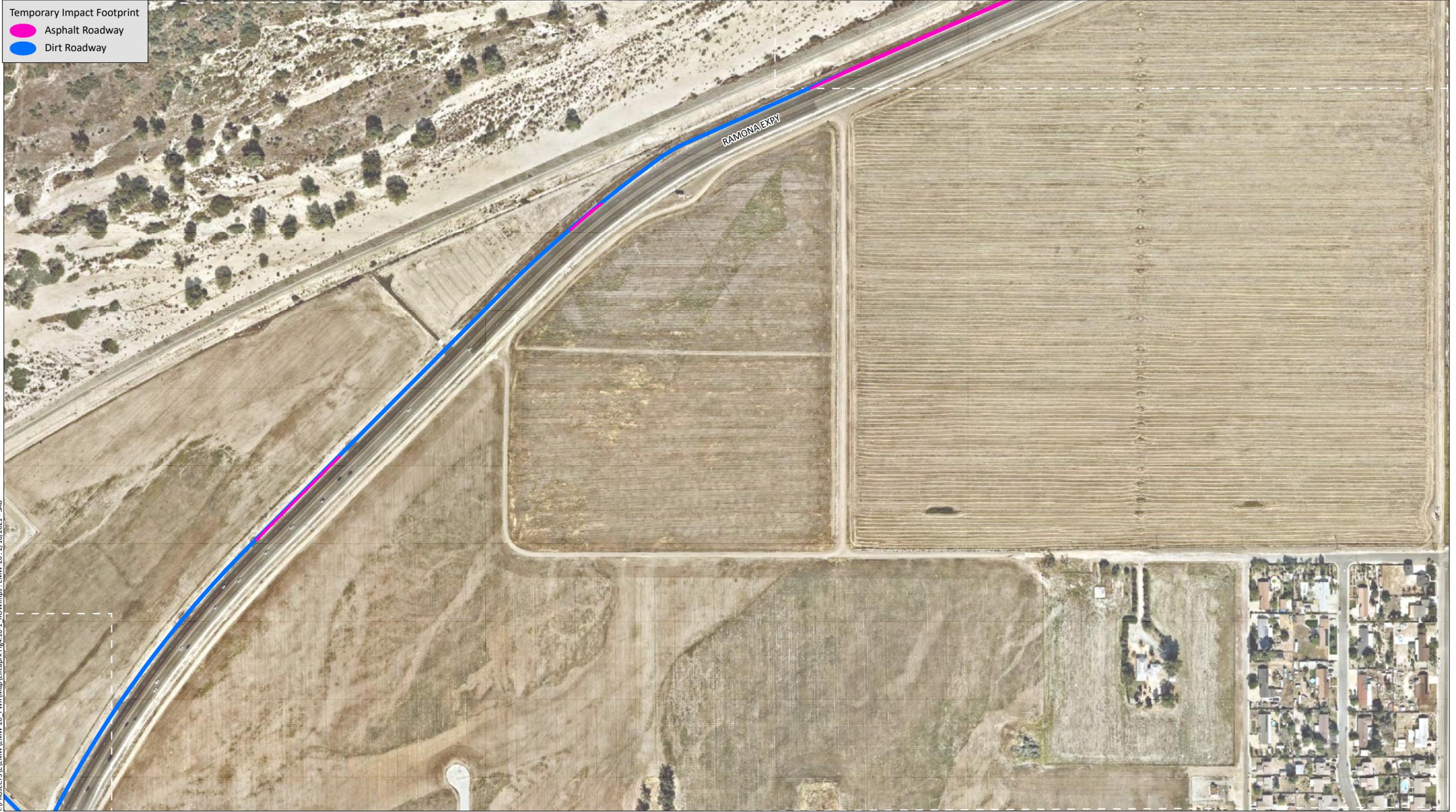
**HELIX**  
Environmental Planning

### Pipeline Impacts within the Public Right-of-way

Figure 4.10-1c

Temporary Impact Footprint

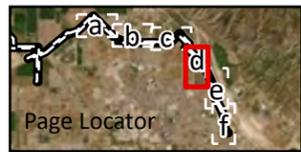
- Asphalt Roadway
- Dirt Roadway



I:\PROJECTS\EMM\EMW-20\_PWR\Map\ER.aprx Fig. 4.10-1 ROW Imps : EMM-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

0 300 Feet



Page Locator

**HELIX**  
Environmental Planning

### Pipeline Impacts within the Public Right-of-way

Figure 4.10-1d

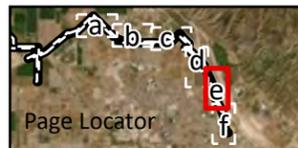
Temporary Impact Footprint  
Asphalt Roadway  
Dirt Roadway



I:\PROJECTS\EMM\EMW-20\_PWR\Map\ER.aprx Fig. 4.10-1 ROW\Imps : EMM-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

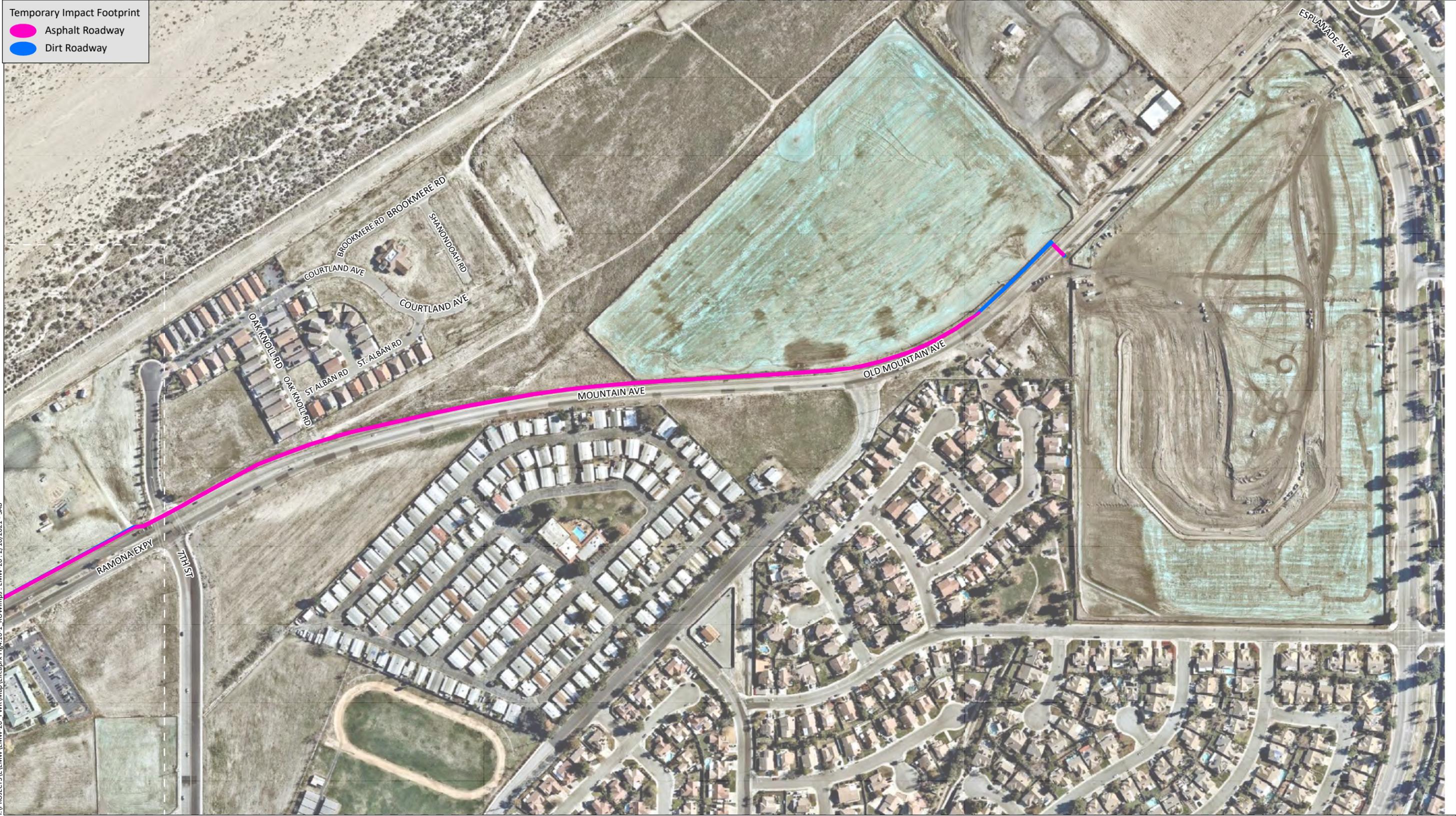
0 300 Feet



Page Locator

Temporary Impact Footprint

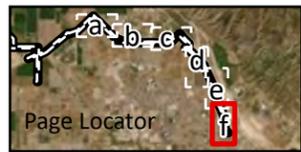
- Asphalt Roadway
- Dirt Roadway



I:\PROJECTS\EMW\EMW-20\_PWR\Map\LEIR\aprx\_Fig4.10-1\_ROW\Imps - EMW-20 - 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

0 300 Feet



## 5.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

---

Implementation of the proposed project would not result in significant impacts to aesthetics, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, utilities and service systems, or wildfire, as discussed below.

### 5.1 AESTHETICS

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

The Resource Management Element of the City's General Plan identifies the mountains east of the city, specifically Mount San Jacinto and the associated Mount San Jacinto State Park, as major scenic resources in the vicinity of the project area (City of San Jacinto 2006). Views of Mount San Jacinto and Mount San Jacinto State Park are afforded from locations throughout the city. During project construction, construction equipment and vehicles could partially interfere with public views of the mountains. While this would result in minor alterations to scenic vistas for viewers in the immediate vicinity of the project's work areas, project construction activities would be temporary and relatively minor in extent. In addition, the project's construction activities that would be most visible to the public based on location, which would be those associated with the pipelines in roadways and adjacent to residences, would be mobile (i.e., they would progress down the alignment and would not stay in one location for an extended period of time). While construction activities and equipment associated with the AWTF and brine management system would remain stationary for the duration of the construction period, there are no public views in the immediate vicinity of these areas that would be obstructed.

Following the completion of construction, the AWTF, brine management system, and Alessandro Blending Station would be the visible components of the project, as the pipelines would be located below ground. While these project components could be visible to vehicular passengers driving on nearby roadways, they would not obstruct scenic views of the mountains based on distance from the roadways to the project components and the scale of the project components in relation to the mountains. As such, the proposed project would not have a substantial adverse effect on a scenic vista during construction or operation and impacts would be less than significant.

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

Three officially designated state scenic highways are located in Riverside County. These include SR 62 from I-10 north to the San Bernardino County line, SR 74 from the western boundary of the San Bernardino National Forest east to SR 111 in the city of Palm Desert, and SR 243 from SR 74 north to the city of Banning (Caltrans 2020). These highways are located approximately 23 miles northeast, 8 miles southeast, and 10 miles east of the project, respectively. Based on these distances, the proposed project would not damage scenic resources within a state scenic highway; therefore, no impacts would occur.

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

As previously noted, the only permanent visible components of the project would be the AWTF, brine management system, and Alessandro Blending Station. While these project components could be visible to vehicular passengers driving on nearby roadways, they would not be highly visible due to the distance from the roadways to the project components. In addition, both the AWTF and Alessandro Blending Station would be located near existing facilities with similar visual character (refer to Figure 2-5 for elevations of the Process and Control Building at the AWTF). The brine management system, which would be constructed within ponds and located in an area surrounded by agricultural land, would also not represent a substantial change in visual character compared to the existing setting. As such, the proposed project would not substantially degrade the existing visual character or quality of public views, and impacts would be less than significant.

*Would the proposed project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Construction of the project is anticipated to occur only during daytime hours (7:00 a.m. to 7:00 p.m.) and not require lighting. New permanent sources of light that would occur from implementation of the project would primarily be located at the AWTF site and would consist of typical operational building and parking lot lighting. Such lighting would be similar to the existing lighting located at the adjacent SJVRWRF. The project would implement lighting in a manner that complies with Riverside County Ordinance No. 655 to minimize nighttime lighting interference with operations of the Mount Palomar Observatory. No substantial sources of glare would be included as part of the project. As such, impacts associated with light and glare would be less than significant.

## **5.2 HAZARDS AND HAZARDOUS MATERIALS**

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

The project's construction activities would require the use of routinely used hazardous materials including, but not limited to, petroleum products (e.g., oil, gasoline, and diesel fuels), automotive fluids (e.g., antifreeze and hydraulic fluids), and other chemicals (e.g., adhesives, solvents, paints, and thinners). No acutely hazardous materials would be used on site during construction and the materials that would be handled would not pose a significant risk to the public. In addition, the District and its construction contractor would comply with all applicable federal, state, and local regulations pertaining to hazardous materials use, handling, storage, and disposal. Impacts related to the use of hazardous materials during construction would be less than significant.

During project operations, chemicals would be used at the AWTF for the project's water treatment processes. Chemicals to be used include sodium bisulfate, ammonium sulfate, sodium hypochlorite, sulfuric acid, threshold inhibitor, sodium hydroxide, and citric acid. Chemicals would be contained within storage tanks located outside at the AWTF site and would be transferred to the process equipment located inside the AWTF via belowground pipelines. Chemicals would be stored in conformance with the California Fire Code and California Mechanical Code and would include approved storage containers, mechanical ventilation, spill control and secondary containment, and appropriate hazardous chemicals storage signage. Where required, the chemical storage areas would also include monitor control equipment, gas detection systems, and fire detection systems. Further, the project would prepare and comply with a Hazardous Materials Business Plan (HMBP) and Risk Management Plan (RMP), as managed and overseen by the Riverside County Department of Environmental Health Hazardous

Materials Branch, which would minimize potential hazards associated with the use of chemicals on site. As such, although potentially hazardous chemicals would be used at the proposed AWTF site, they be used and stored in accordance with applicable regulations such that the project would not create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials. Impacts would be less than significant.

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

As discussed above, potentially hazardous chemicals would be stored and used on site in compliance with applicable regulations which would minimize the potential for upset and accident conditions involving the release of hazardous materials into the environment. In the event of accident conditions involving hazardous materials, the District would coordinate appropriately with the Riverside County Department of Environmental Health Hazardous Materials Branch Emergency Response Team to address the accident and minimize potential effects. As such, impacts would be less than significant.

*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?*

Portions of Mt. San Jacinto College and North Mountain Middle School are within one-quarter mile of the project's proposed conveyance pipeline alignments. As such, typical construction-related hazardous materials (discussed above) are anticipated to be used within one-quarter mile of school. These materials, however, are not acutely hazardous materials and would be handled and used in accordance with applicable relations; therefore, the use of these materials would not pose a substantial risk to students at nearby schools and construction-related impacts would be less than significant.

During project operation, these pipelines, which would convey treated water and be the only component of the project located within one-quarter mile of a school, would be below ground and would not result in hazardous emissions. No operation-related impacts would occur.

*Would the proposed project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Pursuant to Government Code § 65962.5 (Cortese List) requirements, the SWRCB GeoTracker database (SWRCB 2020) and the California Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC 2020) were searched for hazardous materials sites along the project site/alignment and vicinity. The results of these searches indicated that no listed hazardous materials sites are located within or adjacent to the project site/alignment. One site, associated with gasoline contaminated soil, is mapped within North Sanderson Road approximately 300 feet north of the location of the existing pipeline that would be sliplined as part of the project. The case for this site was closed in 2001 (SWRCB 2020) and the site is therefore not anticipated to create a significant hazard. Impacts would be less than significant.

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

The project alignment is not located with an airport land use plan or within two miles of a public airport or public use airport; therefore, the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area. No impacts would occur.

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

Construction of the proposed project's conveyance pipelines would occur within SR 79 and Ramona Expressway, both of which are major roadways providing local and regional access in the project area. Project construction would likely involve temporary lane closures within SR 79 and Ramona Expressway and could therefore potentially interfere with emergency response and/or emergency evacuation. As detailed in Section 4.10, *Transportation*, the project would be required to implement MM-TRA-1, which is the implementation of a traffic control plan to maintain access along roadways and requires coordination with local emergency responders regarding lane closures to maintain appropriate emergency response capabilities. Impacts would be less than significant.

Following completion of construction, the project's conveyance pipelines would be located below ground; therefore, no operational impacts would occur.

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

The project alignment is not located within areas mapped as moderate, high, or very high fire hazard severity zones (California Department of Forestry and Fire Protection [CAL FIRE] 2020). The project components would be located within agricultural areas and roadway rights-of-way and would not be within wildland areas subject to wildland fires. While the project's proposed conveyance pipelines would be located relatively close (some portions within a mile) to wildlands associated with the San Jacinto Mountains, they would be below ground and would not be at exposed to fires. As such, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires; impacts would be less than significant.

### **5.3 LAND USE AND PLANNING**

*Would the proposed project physically divide an established community?*

The project's proposed permanent aboveground facilities, including the AWTF, brine management system, and Alessandro Blending Station, would be located on District-owned land that is currently undeveloped. Land surrounding these proposed facilities is either vacant, used for agriculture, or developed with existing District facilities. Based on location and surrounding uses, these permanent aboveground facilities would not divide an established community. The proposed conveyance pipelines would be located below ground and would also not divide an established community. No impacts would occur.

*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?*

The AWTF and brine management system would be constructed on a site within the city that has a land use and zoning designation of medium density residential; however, the land is owned by the District and is located immediately adjacent to the District's existing SJVRWRF. Based on these factors is unlikely

that, in the future, this land would be utilized for residential development, and the project is therefore not anticipated to affect the City's future housing stock.

The AWTF and brine management system would be very similar uses to the existing uses located at the SJVRWRF. Similarly, the Alessandro Blending Station would be located on District-owned land adjacent to the existing Alessandro Ponds. The project's conveyance pipelines would be located in areas designated as medium density residential and low density residential, as well as public rights-of-way. Construction would occur with public rights-of-way and within easements currently owned by the District, or that would be acquired by the District. Upon completion of construction, the pipelines would be located below ground and would not result in land use inconsistencies. The proposed conveyance pipelines are considered public utilities, which are exempt from the City's Zoning Ordinance.

In addition, as described in Section 3.4, Standard Regulatory Requirements, per Government Code Section 53091, building ordinances of local cities and counties do not apply to the location or construction of facilities used for the projection, generation, storage, treatment, or transmission of water or wastewater. As such, the AWTF and brine management system would not conflict with existing land use designations or be incompatible with surrounding land uses.

The project is within the Western Riverside MSHCP; however, the District is not a signatory to the MSHCP, and, as such, is not subject to the requirements of the MSHCP. Nevertheless, the project would not conflict with the conservation goals and objectives of the MSHCP for the local area, as discussed in Section 4.3, *Biological Resources*.

Impacts related to conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect would be less than significant.

## **5.4 MINERAL RESOURCES**

*Would the proposed project result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state or result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

The CGS classifies the regional significance of the state's mineral resources in accordance with the Surface Mining and Reclamation Act of 1975 to indicate the significance of mineral deposits based on geologic appraisal of the mineral resource potential of the land. The project area is classified by the CGS as Urban Area and Mineral Resource Zone 3, which is an area of known or inferred mineral occurrences of undetermined mineral resource significance. The project area is not currently used for mining or for production of mineral resources of value to the region or residents of California and is not planned to be used for such in the future based on land use designations. No impacts associated with mineral resources would occur as a result of implementation of the proposed project.

## **5.5 POPULATION AND HOUSING**

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

Implementation of the proposed project would not directly induce population growth because it does not propose new homes or businesses that would directly generate new growth. The potential for the proposed project to indirectly induce population growth is evaluated in Chapter 7.0, *Growth Inducement*.

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

The proposed project would occur on vacant District-owned land, on other undeveloped land, and within roadway rights-of-way and would not displace people or housing. No impacts would occur.

## **5.6 PUBLIC SERVICES**

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

The project does not propose new fire department, police station, school, or park facilities and does not propose the expansion of such existing facilities. In addition, the project would not induce substantial population growth in the project area that would necessitate a need for new fire department, police station, school, or park facilities. Construction of the project would require a temporary increase in employees and operation of the project would involve up to five permanent employees. The temporary construction jobs, anticipated to be filled by the local labor force, and small number of permanent operational jobs would not result in a substantial increase in demand for fire, police, school, or park services; therefore, the implementation of the project would not require the construction of new or expansion of existing fire department, police station, school, or park facilities in order to maintain service ratios, response times, or other performance objectives. In the event of a crime, fire, or other emergency at one of the project's proposed facilities, existing police and fire protection services within the project area would be able to sufficiently respond with existing facilities and staffing capacities. Therefore, no impacts associated with the construction of new or expansion of existing fire protection, police protection, school, park, or other public facilities would occur.

## **5.7 RECREATION**

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

There are numerous parks located in the vicinity of the proposed project. The proposed project would not induce population growth and would therefore not increase the use of existing parks or recreational facilities such that substantial physical deterioration would occur. No impacts would occur.

*Does the proposed project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. No impacts would occur.

## 5.8 UTILITIES AND SERVICE SYSTEMS

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

The proposed project involves the construction of a new advanced water treatment facility and associated infrastructure, including conveyance pipelines. The environmental impacts of construction of the project are analyzed throughout this EIR. Because the proposed project components would be located in proximity to existing District facilities and associated existing infrastructure, the proposed project would not require the substantial relocation or construction of additional water, wastewater treatment or storm drainage, electric power, natural gas, or telecommunications facilities that could cause significant off-site environmental effects. The District would coordinate with other agencies and utility providers, as applicable, to avoid impacts to existing and/or planned utility infrastructure during project construction. Impacts would be less than significant.

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

The proposed project would produce advanced treated water from recycled water and combine it with tertiary recycled water for recharge into the groundwater table and eventual extraction for use as potable water. The project is designed to achieve a total recharge capacity of 15,000 AFY upon buildout. The project's annual recharge would result in an increased and more sustainable water supply for the District's service area and would provide increased water supply reliability during dry years. Therefore, no impacts would occur.

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

Project-related wastewater generation that would require treatment by a wastewater treatment provider would be limited to that associated with temporary construction workers and the small number (up to five) of operational employees at the AWTF. The amount of wastewater generated would be minimal and would not exceed treatment capacities. The waste product generated the advanced water treatment process would be disposed of on site at the project's proposed brine management system. As a result, impacts related to wastewater treatment requirements would be less than significant.

*Would the proposed project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction needs; and would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

The project would generate minimal amounts of solid waste during construction (e.g., material packaging) and operation (e.g., typical office-related waste from the Process and Control Building), which would be disposed of at a permitted landfill. Although the project would involve excavation for the brine management system, the cut and fill would be balanced and off-site disposal would not be required. Moreover, AB 939, also known as the Integrated Waste Management Act, mandates the reduction of solid waste disposal in landfills by requiring a minimum 50 percent diversion rate. Potential impacts associated with solid waste generation and disposal would be less than significant.

## 5.9 WILDFIRE

*Would the proposed project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Construction of the proposed project's conveyance pipelines would occur within SR 79 and Ramona Expressway, both of which are major roadways providing local and regional access in the project area. Project construction would likely involve temporary lane closures within SR 79 and Ramona Expressway and could therefore potentially interfere with emergency response and/or emergency evacuation. As detailed in Section 4.10, *Transportation*, the project would be required to implement MM-TRA-1, which would involve the implementation of a traffic control plan to maintain access along roadways and would require coordination with local emergency responders regarding lane closures to maintain appropriate emergency response capabilities. Impacts would be less than significant.

Following completion of construction, the project's conveyance pipelines would be located below ground; therefore, no operational impacts would occur.

*Due to slope, prevailing winds, or other factors, would the proposed project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

The project component that would include regular occupants (i.e., staff members) would be the AWTF. The AWTF is not located in an area mapped by CAL FIRE as a moderate, high, or very high fire hazard severity zone. In addition, the project would not exacerbate fire risks. As such, the project would not expose project occupants to pollutant concentration from a wildfire or the uncontrolled spread of a wildfire. No impacts would occur.

*Would the proposed project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The proposed project's permanent aboveground facilities that would require infrastructure components would be located in areas adjacent to existing District facilities that are served by infrastructure. Though some of the existing infrastructure would be expanded for the project, this expansion would not be substantial and would not exacerbate fire risk or result in temporary or ongoing impacts to the environment. Impacts would be less than significant.

*Would the proposed project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The project's primary aboveground structure at which people would be located would be the Control Building at the AWTF site. Based on its location, it would not be exposed to downslope landslides or downstream flooding as a result of runoff, post-fire slope instability, or drainage changes. The project components that would be located in proximity to slopes and potential flood areas are the proposed conveyance pipelines that run near the base of the San Jacinto Mountains and adjacent to the San Jacinto River; however, the conveyance pipelines would be located below ground and would not be subject to landslides or flooding. Impacts would be less than significant.

This page intentionally left blank

# 6.0 CUMULATIVE IMPACT ANALYSIS

## 6.1 INTRODUCTION

Cumulative impacts are defined in the *CEQA Guidelines* as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Therefore, a cumulative impact is a change in the physical environment that results from the incremental effect of the project when added to other past, present, and reasonably foreseeable future projects. In determining whether a project’s cumulative effects are significant, two determinations are required:

1. Is the combined impact of the project and other projects significant?
2. Cumulative impacts can result from individually minor but collectively significant project taking place over a period of time. Is the project’s incremental effect cumulatively considerable? The *CEQA Guidelines* allow for a project’s contribution to be rendered less than cumulatively considerable with implementation of mitigation measure(s) designed to alleviate the cumulative impacts.

An EIR’s discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence. However, the discussion need not be as detailed as the discussion of environmental impacts attributable to a project alone and should be guided by the standards of practicality and reasonableness.

The geographic scope of the cumulative impact analysis varies depending upon the specific environmental topic being analyzed. In accordance with *CEQA Guidelines* Section 15130(b)(3), Table 6-1, *Geographic Scope of Cumulative Impact Analyses*, summarizes the geographic area within which past, present, and reasonably foreseeable future projects may contribute to a specific cumulative impact, when considered in conjunction with the impacts associated with implementation of the proposed project.

**Table 6-1  
GEOGRAPHIC SCOPE OF CUMULATIVE IMPACT ANALYSES**

<b>Environmental Topic</b>	<b>Geographic Scope of Cumulative Impact Analyses</b>
Agricultural and Forestry Resources	The geographic scope for the cumulative analysis of agricultural resources is the agricultural land adjacent to and nearby the proposed project. There is no forest land in the project vicinity that could be cumulatively affected.
Air Quality	The geographic scope for the cumulative analysis of criteria pollutant emissions is the SCAB. The geographic scope for the cumulative analysis of sensitive receptors is the area in the immediate vicinity of the proposed project components. The geographic scope for the cumulative analysis of odors is the area immediately surrounding potential odor sources. Because odors rapidly disperse beyond their source, associated impacts are generally not cumulative in nature.

**Table 6-1 (cont.)  
GEOGRAPHIC SCOPE OF CUMULATIVE IMPACT ANALYSES**

Environmental Topic	Geographic Scope of Cumulative Impact Analyses
Biological Resources	The geographic scope for the cumulative analysis of biological resources is the cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and surrounding lands that support native habitats, native plant and animal species, and potentially jurisdictional waters. The geographic scope for the cumulative analysis relative to conservation planning is land within the Western Riverside Multiple Species Habitat Conservation Plan area.
Cultural Resources and Tribal Cultural Resources	The geographic scope for the cumulative analysis of historic resources, archaeological resources, human remains, and tribal cultural resources is the cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and the traditional use areas of local tribes.
Energy	The geographic scope for the cumulative analysis relative to energy use is the service areas of the energy (electricity and natural gas) providers in the project area.
Geology and Soils	The geographic scope for the cumulative analysis of soil erosion is the watersheds downstream from the project’s construction sites. The geographic scope for the cumulative analysis relative to seismic hazards and other geologic/soil conditions (e.g., fault rupture, groundshaking, ground failure, liquefaction/collapse, landslides, lateral spreading, subsidence, and expansive soils) are generally site-specific and not cumulative in nature. The geographic scope for the cumulative analysis of paleontological resources is the paleontologically sensitive geologic formations within cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County.
Greenhouse Gas Emissions	Due to the nature of assessment of GHG emissions and the effects of climate change, impacts can currently only be analyzed from a cumulative context; therefore, the geographic scope for the cumulative analysis of GHG emissions is the global atmosphere.
Hydrology and Water Quality	The geographic scope for the cumulative analysis of hydrology and water quality is the receiving waters downstream of the project alignment, the entire San Jacinto Groundwater Basin, and the floodplains within the cities of San Jacinto and Hemet, and nearby portions of unincorporated Riverside County.
Noise	The geographic scope for the cumulative analysis of noise and vibration would be only those cumulative projects in the immediate vicinity of the proposed project locations and any adjacent NSLUs. The area of cumulative impact that would be considered for aircraft impacts would be only those projects located within the mapped aircraft noise contours of the Hemet-Ryan Airport.
Transportation	The geographic scope for the cumulative analysis related to the circulation system, VMT, traffic hazards, and emergency access is the circulation network within and adjacent to the city of San Jacinto.

CEQA Guidelines Section 15130(b) indicates the following approaches for identifying cumulative projects:

- A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

- 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.

The cumulative analysis for this EIR relies on the list approach.

## **6.2 CUMULATIVE PROJECTS**

Cumulative effects could result when considering the effects of the proposed project in combination with the effects of other related projects in the area. Past, present, and reasonably foreseeable future related projects used in this analysis are shown on Figure 6-1, *Cumulative Projects*, and identified in Table 6-2, *List of Cumulative Projects*. Projects in Table 6-2 include active District projects within the San Jacinto Valley that involve physical construction work and active projects subject to CEQA review within the cities of San Jacinto and Hemet.

**Table 6-2  
LIST OF CUMULATIVE PROJECTS**

<b>Project Name</b>	<b>Location</b>	<b>Type of Development</b>	<b>Brief Description</b>	<b>Status</b>
<b>Eastern Municipal Water District</b>				
1. 39 Inch Raw Water Feeder Cathodic Protection Improvements	Along Warren Road from just north of Cottonwood Avenue to Esplanade Avenue and along Esplanade Avenue from Warren Road to Sanderson Avenue in the cities of San Jacinto and Hemet.	Water	Cathodic protection (CP) system improvements on existing 39-inch San Jacinto Valley Raw Water Feeder.	In design phase; construction estimated to start spring 2021 and finish fall 2023.
2. Hemet Water Filtration Plan Hypochlorite Tanks Replacement	Southwest corner of intersection of Commonwealth Avenue and Kirby Street in the city of San Jacinto.	Water	Replacement of Hypochlorite Tanks at the Hemet Water Filtration Plant.	In planning phase; construction estimated to start winter 2020/2021 and finish summer 2021.
3. Grant Avenue Booster Electrical Replacement	44942 Palm Avenue in the city of Hemet.	Water	Replacement of electrical equipment at Grant Street Booster.	In design phase; construction estimated to start summer 2020 and finish fall 2021.
4. Corwin Booster Electrical Replacement	Approximately 500 feet east of the eastern terminus of Montara Way in the city of San Jacinto.	Water	Replacement of electrical equipment at Corwin Booster.	Under construction; construction estimated to finish spring 2021.
5. Mountain Avenue West Replenishment Ponds	Northwest corner of the intersection of Mountain Avenue and Esplanade Avenue in the city of San Jacinto.	Water	Construction of the Mountain Avenue West Recharge Facility and supporting infrastructure.	Under construction; construction estimated to finish winter 2020/2021.
6. San Jacinto Water Supply Pipeline – Phase I	Along Esplanade Avenue from Warren Road to Sanderson Avenue, along Sanderson Avenue from Esplanade Avenue to Commonwealth Avenue, and along Commonwealth Avenue from Sanderson Avenue to the Hemet Water Filtration Plant in the city of Hemet.	Water	Construction of a 66-inch feeder transmission pipeline, a booster pumping station, and a new turnout.	In design phase; construction estimated to start fall 2020 and finish summer 2023.

**Table 6-2 (cont.)  
LIST OF CUMULATIVE PROJECTS**

<b>Project Name</b>	<b>Location</b>	<b>Type of Development</b>	<b>Brief Description</b>	<b>Status</b>
<b>Eastern Municipal Water District (cont.)</b>				
7. Well 201 Equipping	794 E. Shaver Street in the city of San Jacinto.	Water	Well equipping.	In design phase; construction estimated to start winter 2020/2021 and finish fall 2022.
8. Well 202 Equipping	Northeast corner of Donna Way and 7 <sup>th</sup> Street in the city of San Jacinto.	Water	Well equipping.	In design phase; construction estimated to start winter 2020/2021 and finish fall 2022.
9. Well 203 Equipping	1131 East Evans Street in the city of San Jacinto.	Water	Well equipping.	In design phase; construction estimated to start winter 2020/2021 and finish fall 2022.
10. Well 205 Equipping	North of the intersection of Old Mountain Avenue and Timothy Drive in the city of San Jacinto.	Water	Well equipping.	In design phase; construction estimated to start winter 2020/2021 and finish fall 2022.
11. Well 37 Equipping and Pipeline	Approximately 1,200 feet east of Mountain Avenue and approximately 2,000 feet north of the intersection of Esplanade Avenue and Mountain Avenue in the city of San Jacinto.	Water	Well equipping including the construction of a well building, pump and motor, piping, and other appurtenances.	In design phase; construction estimated to start spring 2021 and finish winter 2022/2023.
12. Well 38 Equipping (Well 28 Replacement)	Mountain Avenue and Meridian Channel in the city of San Jacinto.	Water	Well replacement.	Under construction; construction estimated to finish summer 2020.
13. San Jacinto Valley Regional Water Reclamation Facility Centrate Equalization	At the existing SJVRWRF in the city of San Jacinto.	Sewer	Conversion of one existing digester to a centrate equalization tank and construction of two new pump stations.	In design phase; construction estimated to start summer 2021 and finish summer 2022.

**Table 6-2 (cont.)  
LIST OF CUMULATIVE PROJECTS**

<b>Project Name</b>	<b>Location</b>	<b>Type of Development</b>	<b>Brief Description</b>	<b>Status</b>
<b>Eastern Municipal Water District (cont.)</b>				
14. San Jacinto Valley Regional Water Reclamation Facility Plant 1 Rehabilitation	At the existing SJVRWRF in the city of San Jacinto.	Sewer	Rehabilitation of the SJVRWRF Plant 1, including incorporating the Plant 2 primaries as the feed to the Plant 1 secondary process.	In design phase; construction estimated to start winter 2020/2021 and finish summer 2022.
15. San Jacinto Valley Regional Water Reclamation Facility Screw Conveyor in Dewatering Building	At the existing SJVRWRF in the city of San Jacinto.	Sewer	Replacement of old belt conveyors with screw conveyors for sludge dewatering.	Under construction; construction estimated to finish summer 2020.
16. Alessandro Ponds Erosion Mitigation	At the existing Alessandro Ponds located at Olmstead Street in the city of San Jacinto.	Recycled	Regrading of pond dikes where soil has built up and compromised security fencing. The project will also replace damage security fencing.	In planning phase; construction estimated to start fall 2021.
17. MSJC San Jacinto Campus Recycled Water Retrofit	Along Eagle Drive at Mt. San Jacinto College.	Recycled	Installation of approximately 1,370 feet of 8-inch recycled water pipeline. The project also includes the on-site retrofit of the irrigation system.	In planning phase; construction estimated to start fall 2021.
<b>City of San Jacinto</b>				
18. Esplanade Widening Project	Within Esplanade Avenue from Warren Road to Sanderson Avenue in the city of San Jacinto.	Road widening	Road, sidewalk, and drainage channel widening. Traffic signal installation.	Public hearing to adopt MND held February 18, 2020.
19. Luiseño Village	Southwest corner of Main Street and Ramona Expressway in the city of San Jacinto.	Commercial development	Commercial shopping center with gas station, 3,048-SF convenience store, and 1,105 car wash; 14,583-SF multi-tenant retail building; 9,360-SF multi-tenant retail building; 2,800-SF drive-thru restaurant; 3,200-SF drive-thru restaurant.	Public hearing to adopt MND held August 27, 2018.

**Table 6-2 (cont.)  
LIST OF CUMULATIVE PROJECTS**

<b>Project Name</b>	<b>Location</b>	<b>Type of Development</b>	<b>Brief Description</b>	<b>Status</b>
<b>City of San Jacinto (cont.)</b>				
20. Rancho Estudillo Plaza	Northeast corner of 7th Street and Sanderson Avenue in the city of San Jacinto.	Commercial development	Subdivision and development of 2,940-SF convenience store, 2,720-SF canopy for gas station, 3,200-SF drive-thru restaurant, 5,100-SF retail building with 2,500-SF drive-thru restaurant and 2,600-SF retail space, 26,500-SF retail building, 16,900-SF retail building	Public hearing to adopt MND held September 17, 2018.
21. Tentative Tract 37495	116 feet east of the corner of Black Cherry Street and 7th Street, on the north side of 7th Street in the city of San Jacinto.	Residential subdivision	Subdivision into 42 lots for single-family residential development	Public hearing to adopt MND held April 23, 2019.
22. San Jacinto Retail Center	Northwest corner of State Street and Cottonwood Avenue in the city of San Jacinto.	Commercial development	Subdivision and development of 2,956-SF convenience store, 3,096-SF canopy for gas station, 7,869-SF auto repair building, and 2,934-SF drive-thru restaurant	Public hearing to adopt MND held April 23, 2019.
23. KPC Promenade	Northwest corner of Main Street and Ramona Expressway in the city of San Jacinto.	Commercial development	Construct and operate 120-room hotel, medical office building, sit-down restaurant, two drive-through restaurants, combination retail store and restaurant, combination service station car wash and convenience store, 114-room senior housing project.	Public hearing to adopt MND held March 18, 2019
24. San Jacinto Valley Academy Expansion	480 N. San Jacinto Avenue between Idyllwild Drive to the south and Shoal Reef Avenue to the north in the city of San Jacinto.	School expansion	Expansion to existing K-12 school, adding 40 classrooms and a 17,600-SF multi-purpose space	Public hearing to adopt MND held September 17, 2018

**Table 6-2 (cont.)  
LIST OF CUMULATIVE PROJECTS**

<b>Project Name</b>	<b>Location</b>	<b>Type of Development</b>	<b>Brief Description</b>	<b>Status</b>
<b>City of San Jacinto (cont.)</b>				
25. Baypoint Preparatory Academy	1010 S. Lyon Avenue on the west side of Lyon Avenue, approximately 660 feet south of 7th Street in the city of San Jacinto.	School development	Development of a new K-12 school, consisting of 13 educational buildings totaling 120,000 SF with other ancillary buildings totaling 20,643 SF	Public hearing to adopt MND held September 17, 2018
26. Cottonwood Commons	Northwest corner of Sanderson Avenue and Cottonwood Avenue in the city of San Jacinto.	Commercial development	Subdivision and development of 3,800-SF convenience store, 4,395-SF canopy for gas station, 2,080-SF car wash, 2,080-SF drive-through restaurant, 3,200-SF drive-through restaurant with 2,300-SF retail space, two 2,400-SF sit down restaurants, and a 22,000-SF retail building	Public hearing to adopt MND held April 16, 2018
27. Commonwealth Crossing	West side of San Jacinto Avenue at the terminus of Commonwealth Avenue in the city of San Jacinto.	Commercial development	Subdivision and development of 2,720-SF drive-through restaurant, 3,062-SF convenience store, 3,600-SF canopy for gas station, 12,000-SF tire store, 3,590-SF car wash, and 24,000-SF office/retail building	Public hearing to adopt MND held April 16, 2018
<b>City of Hemet</b>				
28. Shop and Go Commercial Center	Southwest corner of West Fruitvale Avenue and N. Sanderson Avenue in the city of Hemet.	Commercial development	Tentative Parcel Map for subdivision; Conditional Use Permit for construction and operation of 3,607-SF convenience store, 1,500-SF service retail use, 4,859-SF fuel canopy with gas station, 3,278-SF drive-thru restaurant, and 17,500-SF retail building	Approved by planning commission on March 19, 2019.

**Table 6-2 (cont.)  
LIST OF CUMULATIVE PROJECTS**

<b>Project Name</b>	<b>Location</b>	<b>Type of Development</b>	<b>Brief Description</b>	<b>Status</b>
<b>City of Hemet (cont.)</b>				
29. S <sup>2</sup> A Modular	1321 N. State Street	Industrial	Construct and operate a TESLA-powered modular smart home factory with a showroom and model display area of seven buildings totaling approximately 250,000 SF	Environmental review in progress.
30. Girard Subdivision	800 N. Girard Street	Residential	Development of 51 single-family residential homes.	Development review committee April 9, 2020.
31. The Latham	South of Latham Avenue between Lyon Avenue and Elk Street	Residential	120-unit, 3-story apartment complex for seniors.	Approved by planning commission on June 16, 2020.
32. Horton Citrus Point	Northeast corner of the intersection of Florida Avenue and Lake Street	Residential	Construction of 80 single-family residential lots	Development review committee April 9, 2020
33. Stoney Mountain Ranch	Southeast corner of the intersection of Esplanade Avenue and Warren Road	Residential	Final build-out of remaining 92 lots of 395-lot residential subdivision.	Approved by planning commission on November 5, 2019.
34. Hideaway Tract	North of Fruitvale Avenue and west of State Street	Residential	Development of 193 single-family residences	Approved by planning commission on March 6, 2018. Currently under construction.

Source: City of Hemet 2020, City of San Jacinto 2020, District 2020.

## 6.3 IMPACT ANALYSIS

### 6.3.1 Agricultural Resources

The geographic scope for the cumulative analysis of agricultural resources is the agricultural land adjacent to and nearby the proposed project. Portions of land in the vicinity of the project alignment are mapped as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, Urban and Built-up Land, and Other Land.

When combined, projects in the cumulative scenario listed above (Table 6-2) have the potential to affect agricultural resources in the geographic scope. The majority of projects in the cumulative scenario would not be located on farmland designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; however, some projects, including projects 5 and 23, could be located on designated farmland and could therefore potentially result in impacts to farmland. If avoidance of agricultural land is incorporated into the planning process, impacts related to agricultural resources would be reduced. Although land proposed for development by some of the cumulative projects may be designated as farmland, it is not necessarily utilized for active agricultural use (i.e., it is vacant) and therefore development of the projects would not necessarily result in the conversion of land used for agriculture to a non-agriculture use.

As described in Section 4.1.4.2 (Issue 1) and Section 4.1.4.6 (Issue 5) development of the project's proposed AWTF site and brine management system would convert land mapped as Unique Farmland and Farmland of Statewide Importance from agricultural use to a non-agricultural use. The potential impact of this conversion was evaluated using the LESA model and determined to be less than significant. The project's other proposed components, which would generally occur within existing disturbed pipeline easements, roadway rights-of-way, and other vacant land, would not permanently convert agricultural land to non-agricultural use. The project would not conflict with Williamson Act contract (Issue 2). Forest land (Issue 3 and Issue 4) would not be impacted by the proposed project facilities.

Given the spread of projects and the fact that most would not be located on agricultural land or convert agricultural land to non-agricultural use, the combined agricultural effects from the projects within the geographic scope of the agricultural analysis, considered together with the proposed project, potential cumulative impacts to agricultural resources would be less than significant.

### 6.3.2 Air Quality

The geographic scope for the cumulative analysis of conflict with air quality plans and criteria pollutant emissions is the SCAB. The SCAB is a nonattainment area for PM<sub>10</sub>, PM<sub>2.5</sub>, and ozone, and therefore the baseline for the region is considered cumulatively significant. As evaluated in Section 4.2.4.1 (Issue 1), the project would not conflict with or obstruct implementation of the SCAQMD's AQMP. As evaluated in Section 4.2.4.2 (Issue 2), the project would not result in emissions of PM<sub>10</sub>, PM<sub>2.5</sub>, or the ozone precursors NO<sub>x</sub> and VOCs during construction and operation that would exceed regional or local thresholds and would therefore not be cumulatively considerable. Further, because the project would not directly induce growth, indirectly accommodate unplanned growth, or generate high levels of VMT during operations, the project's contribution to the regional impact would not be considered cumulatively considerable.

The geographic scope for the cumulative analysis of sensitive receptors is the area in the vicinity of the proposed project components. Construction of multiple cumulative projects in addition to the proposed project could combine to generate emissions of criteria pollutants and TACs that could affect nearby sensitive receptors. This would only happen, however, if construction of one or more cumulative projects would emit substantial emissions, occur adjacent to and simultaneously with the proposed project construction activities, and occur in proximity to sensitive receptors. Based on the size, location, and phasing of the cumulative projects in Table 6-2 and the planned construction of the proposed project, such situations are unlikely to occur, and the baseline with respect to exposure of pollutants to sensitive receptors is not cumulatively significant.

In addition, as disclosed in Section 4.2.4.3 (Issue 3), the proposed project's emissions of criteria pollutants during construction would be below SCAQMD LSTs and would not expose sensitive receptors to substantial pollutant concentrations. Operationally, cumulative projects have the potential to combine to increase vehicular congestion on roadways and potentially result in CO hotspots; however, as discussed in Section 4.2.4.2 (Issue 3), the increase in vehicle trips associated with the proposed project would be negligible. Also, the potential for a CO hotspot is generally limited to the immediate vicinity of the affected roadway segment or intersection. As such, the proposed project in combination with cumulative projects would not result in a significant cumulative impact to sensitive receptors.

The geographic scope for the cumulative analysis of odors is the area immediately surrounding potential odor sources. Because odors rapidly disperse beyond their source, associated impacts are generally not cumulative in nature. Additionally, as discussed in Section 4.2.4.4 (Issue 4), the proposed project would not result in substantial odor generation during construction or operation and would therefore not combine with other cumulative projects to result in a cumulatively significant impact associated with objectionable odors.

### **6.3.3 Biological Resources**

The geographic scope for the cumulative analysis of biological resources is the cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and surrounding lands that support native habitats, native plant and animal species, and potentially jurisdictional waters.

The project area is situated in the San Jacinto Valley west of the San Jacinto River and at the western base of the San Jacinto Mountains. As described in Section 4.3, *Biological Resources*, one sensitive vegetation community, southern willow scrub, occurs within the proposed project's study area. Two sensitive plant species, smooth tarplant and chaparral (foothill) sand-verbena, were observed in the study area and three special status animal species, least Bell's vireo, burrowing owl, and San Bernardino kangaroo rat, have high potential to occur in the study area. In addition, potentially jurisdictional waters are present in the study area.

Development in the proposed project area has substantially altered native habitats and adversely affected native plant and wildlife. Historic agricultural use and the expansion of urban areas in the region have resulted in the loss of open space and the degradation of natural areas that historically supported populations of unique and rare species and habitats. The majority of projects included in Table 6-2 are located in areas that are already developed, or the sites have previously been altered due to grading or agricultural practices and would not contribute significantly to direct impacts to sensitive biological resources.

The proposed project in combination with the cumulative scenario described above would result in potentially significant cumulative impacts to special status plant and wildlife species (Issue 1). As mentioned above, two sensitive plant species, smooth tarplant and chaparral (foothill) sand-verbena, occur within the proposed project's study area and could be impacted by the proposed project. Cumulative projects would also have the potential to result in impacts to these species; however, as discussed in Section 4.3.4.1 (Issue 1), these species have a relatively low sensitivity and are abundant in the project area, and the project's potential impacts to such species would be reduced to less than significant with implementation of MM-BIO-1 and MM-BIO-2, which involve the installation of temporary construction fencing and biological monitoring in areas where work limits occur adjacent to known sensitive resources. Therefore, with implementation of mitigation measures, the project would not result in a cumulatively considerable contribution to sensitive plant species impacts (Issue 1).

Suitable habitat for sensitive wildlife species, including burrowing owl, least Bell's vireo, San Bernardino kangaroo rat, and nesting birds, occur in the vicinity of the proposed project and cumulative projects sites. Construction of the proposed project could interact with other nearby projects, such as projects 5, 19, and 23, to result in direct and indirect impacts to these sensitive wildlife species from habitat removal and/or noise generation that could be cumulatively significant; however, implementation of mitigation measures MM-BIO-1 through MM-BIO-3 would reduce the project's impact contribution to a less-than-significant level through fencing, monitoring, avoidance, and surveys. Furthermore, the project incorporates setbacks in excess of 500 feet from all potential least Bell's vireo habitat, thereby avoiding any potential direct or indirect impacts on the species. Therefore, with implementation of mitigation measures, the proposed project would not result in a cumulatively considerable contribution to sensitive wildlife species resources impacts (Issue 1).

Similarly, sensitive habitats (Issue 2) and potentially jurisdictional waters (Issue 3) occur in the area of the proposed project and cumulative projects sites and could be subject to a significant cumulative impact from the combined effects of the cumulative projects. Therefore, the baseline cumulative impact is potentially significant. The proposed project would not result in direct impacts, such as grading, fill, or removal of vegetation, to sensitive habitats or potentially jurisdictional waters and would therefore not have the potential to contribute to a cumulatively significant direct impact. The proposed project would, however, have the potential to indirectly impact potentially jurisdictional waters through the release of construction-related pollutants and could therefore have the potential to combine with other cumulative projects to result in cumulatively significant indirect impacts to potentially jurisdictional water. Through implementation of BMPs and mitigation measures MM-BIO-1 and MM-BIO-2, the proposed project would not result in a cumulatively considerable contribution to jurisdictional waters or wetlands impacts (Issue 3).

Through development on previously undeveloped land that supports wildlife habitats and species, the projects in the cumulative scenario could combine to restrict wildlife movement (Issue 4), which could result in a potentially significant cumulative impact. The proposed project, however, would include belowground components that would not affect wildlife movement and aboveground components that would be located in previously disturbed/developed area and would also not affect wildlife movement. The project's contribution to the impact would not be cumulatively considerable.

Cumulative projects would be subject to appropriate local ordinances (Issue 5) and conservation planning policies (Issue 6) on an individual basis. The project's implementation of mitigation measures MM-BIO-1 through MM-BIO-4 would ensure that biological resources are protected, consistent with the

goals of habitat conservation plans. No significant cumulative impact with respect to compliance with local ordinances would occur.

### **6.3.4 Cultural Resources and Tribal Cultural Resources**

The geographic scope for the cumulative analysis of historic resources, archaeological resources, human remains, and tribal cultural resources is the cities of San Jacinto and Hemet, nearby portions of unincorporated Riverside County, and the traditional use areas of local tribes.

As described in Section 4.4, *Cultural Resources and Tribal Cultural Resources*, 90 cultural resources have been previously recorded within a one-mile radius of the proposed project limits, 8 of which are situated within or in immediate proximity to the project limits. In addition, there exists potential for previously unknown resources to be located below ground in the vicinity of the project and in the entire geographic scope.

The cumulative projects listed in the Table 6-2 include varying degrees of ground-disturbing activities, and, therefore, have the potential to impact historic resources (Issue 1), archaeological resources (Issue 2), human remains (Issue 3), and tribal cultural resources (Issue 4) to varying degrees. It is assumed that the cultural resources within the entire geographic scope would be similar to those in the proposed project area. It is also expected that these projects would be or have been subject to analysis and review under CEQA, and that the potential effects to cultural resources would be mitigated. However, due to the presence of known historic resources and the general cultural sensitivity in the area, potential combined cultural resources effects (Issues 1 through 4) from the projects in Table 6-2 within the geographic scope for the cultural resources analysis is considered cumulatively significant.

The proposed project could combine with cumulative projects to result in cumulatively significant impacts to historic resources (Issue 1); however, as discussed in Section 4.4.4.1, no historical resources would be affected by the proposed project; therefore, implementation of the project would not result in a cumulatively considerable contribution to historic resources impacts.

The proposed project has the potential to affect unknown archaeological resources (Issue 2) during ground-disturbing activities, such as clearing, trenching, and grading, and could potentially combine with cumulative projects requiring ground disturbance to result in cumulatively significant regional impact to archeological resources. However, mitigation measures MM-CUL-1 through MM-CUL-6, which comprise an archaeological and Native American monitoring program, would be implemented as part of the proposed project and through implementation of these mitigation measures, the proposed project's contribution to a regional impact to archaeological resources would not be cumulatively considerable.

The project's ground-disturbing activities could also affect buried human remains (Issue 3) and combine with cumulative projects to result in cumulatively significant impacts. Implementation of mitigation measure MM-CUL-7 during the project's construction activities would avoid potential impacts to human remains and the project would therefore not result in a cumulatively considerable contribution.

Similarly, the proposed project has the potential to affect TCRs (Issue 4) during ground-disturbing activities and could potentially combine with cumulative projects requiring ground disturbance to result in cumulatively significant impacts to TCRs; however, mitigation measures MM-CUL-1 through MM-CUL-6, which comprise an archaeological and Native American monitoring program, would be implemented as part of the proposed project and through implementation of these mitigation

measures, the proposed project's contribution to a regional impact to TCRs would not be cumulatively considerable.

### **6.3.5 Energy**

The geographic scope for the cumulative analysis relative to energy is the service areas of the energy (electricity and natural gas) providers in the project area, which are SCE and SoCalGas. When combined, the projects identified in Table 6-2 could contribute to a regional increase in energy use through their use of gasoline and diesel, electricity, and/or natural gas during construction and/or operation. The projects, however, would be required to comply with regulatory requirements for energy use (e.g., Title 24 requirements, CalGreen energy requirements, and fuel efficiency standards for vehicles), which would ensure the cumulative projects would not use energy in a wasteful, inefficient, or unnecessary manner.

As described in Section 4.5.4.1 (Issue 1), the project would consume energy in the forms of gasoline and diesel fuel for off-road equipment, on-road haul trucks, and worker commute vehicles during construction and would consume energy primarily in the form of electricity for the AWTF during operations. Energy use would be limited to that which is necessary for the project; therefore, the project would not use energy in a wasteful, inefficient, or unnecessary manner. In addition, the project would provide a local source of potable water, which would reduce reliance on imported water, thereby reducing the energy used to pump water from the Sacramento-San Joaquin Bay Delta in northern California or from the Colorado River. The project, at full Phase II buildout, is anticipated to result in a net electricity reduction of approximately 24,207,794 kWh per year. As such, the combined effects from all projects within the geographic scope related to energy use would not be cumulatively significant.

In regard to consistency with applicable energy plans (Issue 2), cumulative new development would be required to comply with applicable plans and policies related to energy use, most notably the 2019 Title 24 Building Energy Efficiency Standards, CalGreen energy requirements, and fuel efficiency standards for vehicles, as mentioned above. The project would comply with applicable plans and would result in a net reduction in energy use. As such, the combined effects from cumulative projects within the geographic scope related to consistency with energy plans would not be cumulatively significant.

### **6.3.6 Geology and Soils**

The geographic scope for the cumulative analysis relative to seismic hazards and other geologic/soil conditions (e.g., fault rupture, groundshaking, ground failure, liquefaction/collapse, landslides, lateral spreading, subsidence, and expansive soils) are generally site-specific and not cumulative in nature. The presence of one cumulative project in a seismic or geologic potential hazard area would not have an effect on potential hazards to a cumulative project in another location. The amount of damage caused by each of these events would be site-specific due to various factors such as the type of base rock, the soils each of the sites are located on, and the type of structure(s) each cumulative project might construct. Also due to the narrow focus of most seismic events, the amount of stress given to the various areas will vary from place to place. As a result, the amount of damage caused by a seismic or geologic event will vary between projects. As discussed in Section 4.6.4.1 (Issue 1), Section 4.6.4.3 (Issue 3), and Section 4.6.4.4 (Issue 4), the project would not result in significant impacts related to seismic hazards, geologic instability, or expansive soils. Therefore, the proposed project, in combination with other cumulative projects, would not result in a cumulatively significant increase in exposure to seismic and geologic hazards.

The geographic scope for the cumulative analysis of soil erosion (Issue 2) is the watersheds downstream from the project's construction sites. This is because rainfall erosion of soils exposed by land disturbance activities during construction can lead to downstream sedimentation effects, as sediment-laden runoff is carried along drainage facilities and natural water courses by stormwater flows. Some of the cumulative projects in Table 6-2 would involve ground disturbance activities, including vegetation clearing, grading, excavation, and trenching which could contribute, however incrementally, to the overall sedimentation issues in runoff flows that discharge into downstream watercourses. However, projects would be required to meet water quality standards and comply with water quality measures contained in federal, state, and regional requirements. This would entail obtaining a NPDES Construction General Permit and implementing a SWPPP during construction. Therefore, impacts to the local watersheds caused by downstream sedimentation effects from soil erosion associated with land disturbance activities would not be cumulatively significant.

The project would not include septic tanks or alternative wastewater disposal systems (Issue 5) and would therefore not have the potential to combine with cumulative projects to result in a cumulatively significant impact.

The geographic scope for the cumulative analysis of paleontological resources (Issue 6) is the paleontologically sensitive geologic formations within the cities of San Jacinto and Hemet, and nearby portions of unincorporated Riverside County. The cumulative projects listed in Table 6-2 include varying degrees of ground-disturbing activities, and, therefore, have the potential to impact paleontological resources to varying degrees. Due to the high paleontological sensitivity of the area, potential impacts to paleontological resources from the cumulative projects are considered cumulatively significant. As discussed in Section 4.6.4.6, the proposed project has the potential to affect unknown paleontological resources during excavation at depths greater than four feet, in which case the project could contribute to a cumulatively significant impact; however, mitigation measure MM-GEO-1, which includes implementation of a paleontological resources mitigation and monitoring plan, would reduce the project's contribution to a regional impact to paleontological resources to less than cumulatively considerable.

### **6.3.7 Greenhouse Gas Emissions**

Due to the nature of assessment of GHG emissions and the effects of climate change, impacts can currently only be analyzed from a cumulative context; therefore, the geographic scope for the cumulative analysis of GHG emissions is the global atmosphere. Refer to Section 4.7, *Greenhouse Gas Emissions*, for a cumulative analysis of GHG impacts.

### **6.3.8 Hydrology and Water Quality**

The geographic scope for the cumulative analysis of hydrology and water quality is the receiving waters downstream of the project alignment, the entire San Jacinto Groundwater Basin, and nearby floodplains.

When combined, the projects in the cumulative scenario listed above in Table 6-2 have the potential to affect and hydrology and water quality in the geographic scope. All the projects listed in Table 6-2 would be located in the same watershed and groundwater basin as the proposed project and would be located within or near the same floodplains as the proposed project. Construction and operation of the cumulative projects could result in erosion and sedimentation and the release of hazardous materials,

debris, and other pollutants to surface waters or groundwater and thus impact water quality (Issue 1) and conflict with water quality control plans (Issue 5). The projects would have the potential to disrupt existing drainage patterns in a manner that would result in erosion, sedimentation, flooding, increased runoff rates, and increased amounts of polluted runoff (Issue 3). In addition, the cumulative projects would be at risk of releasing pollutants due to project inundation from a flood event (Issue 4). However, projects would be required to meet water quality standards and comply with water quality measures contained in federal, state, and regional requirements. This would entail obtaining a NPDES Construction General Permit and implementing a SWPPP during construction and complying with the MS4 permit, which addresses water quality on a regional basis, during operations. Such regionally based water quality measures are developed on a watershed-wide basis to ensure that individual projects do not combine with others to become cumulatively considerable. As such, the cumulative impact related to water quality (Issue 1), drainage (Issue 3), and flood hazards (Issue 4), and conflict with water quality control plans (Issue 5) is less than significant.

In regard to groundwater supply (Issue 2), some of the cumulative projects would result in increased water demand, which in part may be met by the local groundwater supply. Other projects, including project number 5 in Table 6-2, would result in increased groundwater recharge and therefore increased groundwater supply. Overall, however, the potential for the cumulative projects within the geographic scope to rely on high levels of groundwater supply during operation results in a potentially significant cumulative impact.

The proposed project would function to produce a combination of advanced treated and tertiary recycled water for recharge in the groundwater table. Such recharge would enhance the existing groundwater quality and would offset potential impacts to groundwater supply that could occur from the increased local water demand from cumulative projects. Therefore, when considered in addition to the potential impacts of other projects in the cumulative scenario, the proposed project's contribution to groundwater impacts (Issue 2) would not be cumulatively considerable.

### **6.3.9 Noise**

The geographic scope for the cumulative analysis of noise and vibration would be only those cumulative projects in the immediate vicinity of the proposed project locations and any adjacent NSLUs. Generally, noise and vibration impacts are limited to the area directly surrounding the source, as noise and vibration attenuate with distance, and only have the potential to combined with other noise and vibration sources occurring simultaneously in the immediate vicinity. The proposed project would generate noise during construction of its various components; therefore, cumulative effects in these areas are considered. The project's operational noise would be limited to the AWTF site, which is not located in proximity to NSLUs.

Projects in the cumulative scenario listed in Table 6-2 could generate noise during construction and operation that would have the potential to temporarily increase ambient noise levels in the vicinity of NSLUs. Construction noise would be localized, affecting areas in the immediate vicinity of the construction sites. Though the timing for the cumulative projects is currently not confirmed, if construction of projects 5, 19, 23, occur concurrently with the proposed project, the noise levels would combine to potentially create a significant noise impact to the nearby residences. As such, the combined effects of the project in the geographic scope for noise is conservatively considered to be cumulatively significant.

When considered with the cumulative projects, the noise effects (Issue 1) of the proposed project could contribute incrementally to cumulative impacts related to noise. The combined construction of the project components and cumulative projects mentioned above would occur within the city of San Jacinto. Per mitigation measure MM-NOI-1, the proposed project construction would occur within the allowable hours of the City of San Jacinto's municipal code when in close proximity to NSLUs. While cumulative projects located in the immediate vicinity of the proposed project components could occur outside of the allowable construction hours and potentially result in significant impacts, the proposed project would not generate noise during these hours and would therefore not contribute to a cumulatively significant impact. In addition, the proposed project components that would involve noise-generating construction activities in proximity to NSLUs would be the proposed conveyance pipelines. Construction work for the pipelines would continuously progress along the alignments and would not be located at any one location, or adjacent to any one type of NSLU, for an extended period of time; therefore, the likelihood of construction of the cumulative projects occurring at the same time and location as construction for the proposed project's pipelines is not high. As such, the proposed project's contribution to cumulative noise-related impacts would not be cumulatively considerable with mitigation measure MM-NOI-1.

Groundborne vibration attenuates rapidly with distance and is therefore not generally cumulative in nature. In addition, as discussed in Section 4.9.4.2 (Issue 2), the project would generate minimal groundborne vibration during construction and vibration; therefore, in combination with cumulative projects, the proposed project would not result in a cumulatively significant impact associated with excessive groundborne vibration.

The area of cumulative impact that would be considered for aircraft impacts would be only those projects located within the mapped aircraft noise contours of the Hemet-Ryan Airport. As discussed, in Section 4.9.4.3 (Issue 3), no portion of the project alignment is within either the existing or future mapped noise contours of the Hemet-Ryan Airport, and while distant aircraft activity may be audible, neither the project's temporary construction workers nor permanent facility workers would be exposed to excessive aircraft noise. As such, the proposed project would not combine with cumulative projects to result in a cumulatively significant impact related to aircraft noise.

### **6.3.10 Transportation**

The geographic scope for the cumulative analysis related to the circulation system, VMT, traffic hazards, and emergency access is the circulation network within and adjacent to the city of San Jacinto. This includes roadways, bike paths/lanes, and pedestrian facilities (i.e., sidewalks). Roadways included in the geographic scope consist of regional roadways including SR 79, SR 74, and Ramona Expressway, and local roadways including, but not limited to, Sanderson Avenue, State Street, and Esplanade Avenue.

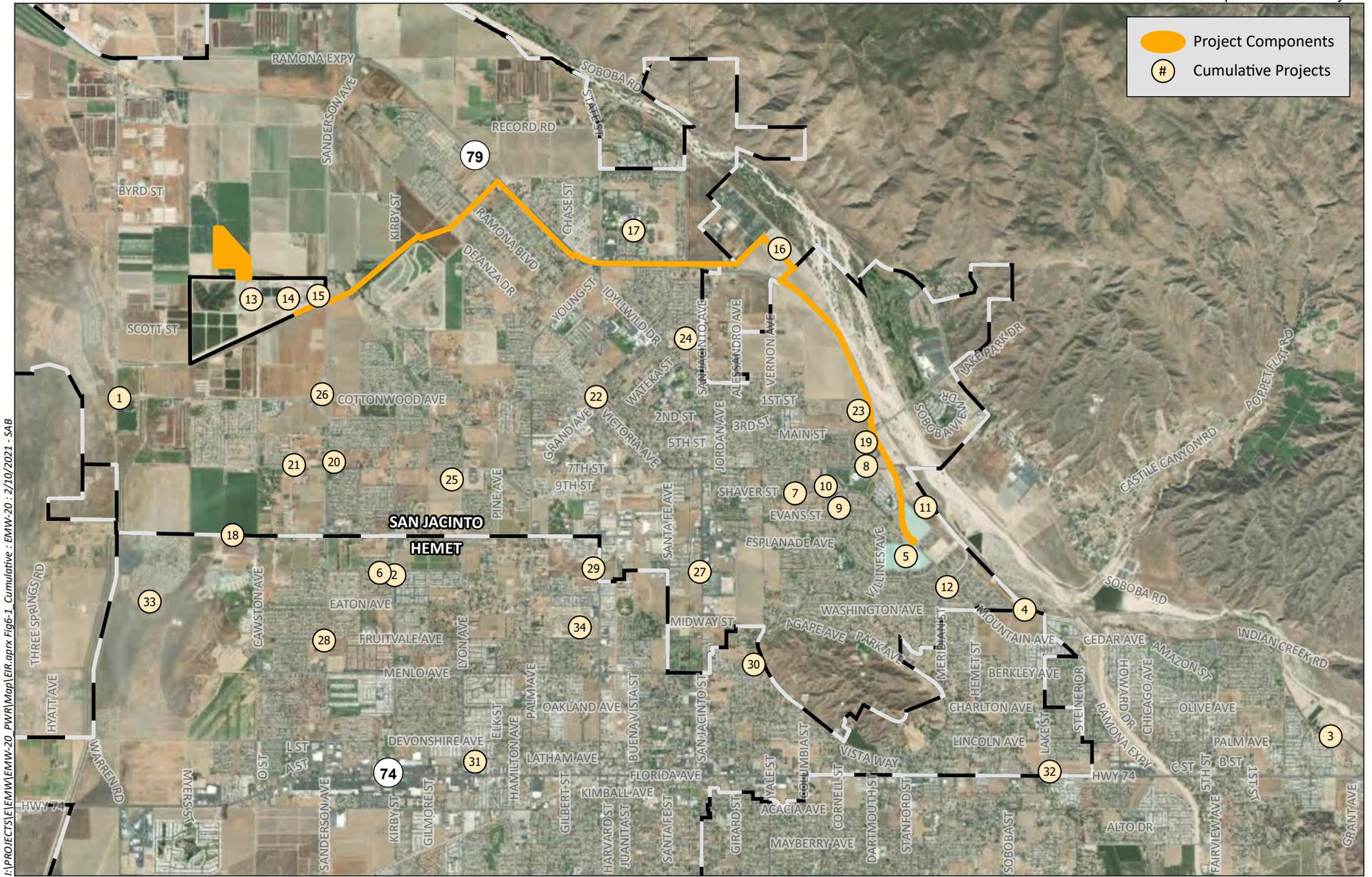
Cumulative projects listed Table 6-2 would have the capability to generate additional vehicular traffic on the regional and local roadway systems within the geographic scope. The amount of traffic generated depends on the type and size of the project. Residential projects, such as projects 21, 30, 31, 32, 33, and 34, listed in Table 6-2, would consistently contribute large amounts of additional vehicles to regional and local roadways. Commercial projects, such as projects 19, 20, 22, 23, 26, 27, and 28, listed in Table 6-2, would generate high amounts of additional vehicles during daytime peak hours and on the weekends. Given the different types and sizes of the projects included in the cumulative scenario, it is reasonable to assume that the cumulative projects could combine to generate vehicular traffic that could affect regional and local roadways. In addition, infrastructure projects, such as projects 1, 6, and 11, would

involve the installation and/or maintenance of pipelines within public rights-of-way, which would require partial or full lane closures. In combination, cumulative projects generating increased traffic and/or resulting in lane closures could result in cumulatively considerable impacts to the local and regional roadway systems as related to traffic circulation, VMT, traffic hazards, and emergency access. As such, the combined effects from the construction and/or operation of projects within the geographic scope related to transportation would be cumulatively significant.

When added to the cumulative scenario described above, construction and operation of the proposed project would not substantially increase traffic volumes (Issue 1 and Issue 2) within the geographic scope. Project construction would result in an increase in vehicles, primarily haul trucks; however, the increase would be temporary. Following construction, operation of the project would generate minimal traffic, and the effects on the surrounding circulation system would be negligible and would not cause the existing roadway levels of operation to decrease. While the project would involve construction within the roadway right-of-way which would require partial or full lane closures, the project would implement MM-TRA-1 that requires the preparation and implementation of a TCP. The TCP would include measures and devices, such as signage, striping, delineated detours, and flagging operations, to allow for continued roadway operations and traffic circulation (Issue 1). The TCP would also minimize traffic-related hazards (Issue 3) and ensure adequate emergency access (Issue 4) during project construction. Following construction, affected roadways would be restored to pre-existing conditions and no long-term impacts would occur. As such, with implementation of MM-TRA-1, the proposed project's contribution to cumulative transportation-related impacts would not be cumulatively considerable.

## **6.4 CONCLUSION**

The proposed project's cumulative impacts would be less than significant and/or the project's contribution would be less than cumulatively considerable with implementation of the mitigation measures referenced above and provided in Sections 4.1 through 4.10 of this EIR.



I:\PROJECTS\EMMW-20\_PWRI\Map\ER.aprx Fig-1 Cumulative - EMMW-20 : 2/10/2021 - SAB

Source: Aerial (NearMap, 2020)

## 7.0 OTHER CEQA-RELATED SECTIONS

---

This chapter includes a discussion of other CEQA considerations related to the following: the potential for growth inducement; issue areas where impacts would be significant and unavoidable; and significant, irreversible environmental effects related to implementation of the proposed project.

### 7.1 GROWTH INDUCEMENT

#### 7.1.1 Introduction

Induced growth is characterized by the construction of new housing or accelerated economic and/or population growth that exceeds planned growth and results either directly or indirectly from implementation of a project.

In accordance with Section 15126.2(e) of the *CEQA Guidelines*, an EIR must include an analysis of the growth-inducing impact of a proposed project. The growth inducement analysis must address: (1) the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment; and (2) the potential for a project to encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. This second issue involves the potential for a project to induce growth by the expansion or extension of existing services, utilities, or infrastructure. The *CEQA Guidelines* further state that “[i]t must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment” (Section 15126.2[e]).

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 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.

Water supply availability and service is one of the primary, though not the only, public services needed to support development. The proposed project would produce a combination of advanced treated water and tertiary recycled water for recharge and storage in the SJUPMZ. This water would eventually be extracted and used as a supply for potable water demand. The District is proposing to implement the proposed project in two phases. Phase I would achieve a recharge capacity of 4,000 AFY and Phase II would achieve an additional 11,000 AFY for a total project recharge capacity of 15,000 AFY. The proposed project would therefore increase water supply availability and reliability within the District’s service area. While a more available and reliable water supply would play a role in supporting projected growth in the District’s service area, it would not be the only impetus to such growth. Other factors, including general plans and policies, the availability of wastewater disposal capacity, public schools, transportation services, and other necessary public infrastructure, also influence development and population growth. In addition, economic factors greatly influence development rates and locations.

Growth itself is not necessarily detrimental to the environment and is therefore not necessarily an adverse impact. Rather, it is the potential consequences of growth (e.g., increased traffic and noise, degradation of air quality, loss of habitat) which may result in environmental impacts. Growth

inducement may result in adverse impacts if the growth is not consistent with local land use plans and/or growth management plans and policies for the area; such inconsistent and unplanned growth, which may be considered “disorderly,” could indirectly result in additional adverse environmental impacts. Thus, it is important to assess the degree to which the potential growth induced by a project would or would not be consistent with applicable plans.

### 7.1.2 Project Area Population Projections

The proposed project area is located within the District’s service area within the city of San Jacinto and a portion of unincorporated Riverside County. Each jurisdiction’s General Plan guides the type and location of land uses and the intensity of development in response to projected population growth and associated housing needs. Each jurisdiction has assessed the growth-related impacts associated with planned land use and build-out scenarios allowed under their General Plans.

The proposed project and the District’s service area are located within the jurisdiction of SCAG. SCAG provides population, housing, and employment growth forecasts for each region, subregion, and city within its jurisdiction, which includes Orange, Ventura, San Bernardino, Los Angeles, Riverside, and Imperial Counties. In 2016, SCAG adopted the 2016-2040 RTP/SCS, which acts as a long-term planning and management plan for the regional transportation system, providing mitigation measures to offset the impacts of population growth. The 2016-2040 RTP/SCS provides population, housing, and employment growth forecasts by jurisdiction. Population forecasts for San Jacinto and unincorporated County are shown in Table 7-1, *Population Projections*. Also included in Table 7-1 are population projections for the District’s service area as provided in the District’s 2015 Urban Water Management Plan (UWMP; District 2016). As shown in the table, the City, County, and District’s service area are projected to experience population increases of 64.4 percent, 29.4 percent, and 48.8 percent, respectively, from 2020 to 2040.

**Table 7-1  
 POPULATION PROJECTIONS**

Jurisdiction	2020*	2035*	2040*	% Change 2020-2040*
City of San Jacinto	48,600	73,300	79,900	64.4
Unincorporated Riverside County	385,600	471,200	499,200	29.4
District’s Service Area	856,500	1,178,600	1,274,600	48.8

Source: SCAG 2016, District 2016

\* Projected Population

### 7.1.3 Water Supply and Demand

The District is one of 29 water agencies that have a State Water Project (SWP) Water Supply Contract with DWR. The majority of the District’s water supply consists of imported water purchased through the Metropolitan Water District of Southern California from the SWP and the Colorado River Aqueduct. The availability of these imports is dependent on the amount of precipitation in the watershed, the amount of that precipitation that runs off into the watershed, water use by others in the watershed, and the amount of water in storage in the SWP’s Lake Oroville at the beginning of the year. Variability in the location, timing, amount, and form (rain or snow) of precipitation, as well as how wet or dry the previous year was, produces variability from year to year in the amount of water that is available for the SWP. The District’s local supply sources include groundwater, desalinated groundwater, and recycled

water. Groundwater is pumped from the Hemet/San Jacinto and West San Jacinto areas of the San Jacinto Groundwater Basin. The District owns and operates two desalination plants that convert brackish groundwater from the West San Jacinto Basin into potable water. The District also owns, operates, and maintains its own recycled water system that consists of four regional water reclamation facilities and several storage ponds spread throughout the District’s service area that are connected through the recycled water system (District 2016).

Water demand (including retail and wholesale) and supply projections for the District’s service area were obtained from the District’s 2015 UWMP and are shown below in Table 7-2, *District Projected Water Supply and Demand (AFY)*. As shown in the table, total water demand and supply for the District’s service area through 2040 is estimated at 268,200 AFY, which represents an 83.6 increase over 2015 demand and supply (District 2016).

**Table 7-2  
 DISTRICT PROJECTED WATER SUPPLY AND DEMAND (AFY)**

Sources	2015	2020	2025	2030	2035	2040
<b>Water Demand</b>						
Potable and Raw Water Demand	100,705	151,000	165,600	180,600	195,200	209,300
Recycled Water Demand	45,385	46,901	53,100	55,200	57,400	58,900
<b>Total Demand</b>	<b>146,090</b>	<b>197,901</b>	<b>218,700</b>	<b>535,800</b>	<b>252,600</b>	<b>268,200</b>
<b>Water Supply</b>						
Imported Water	78,165	131,697	143,197	158,197	172,797	186,897
Groundwater	15,252	12,303	12,303	12,303	12,303	12,303
Desalinated Groundwater	7,288	7,000	10,100	10,100	10,100	10,100
Recycled Water	45,385	46,901	53,100	55,200	57,400	58,900
<b>Total Supply</b>	<b>146,090</b>	<b>197,901</b>	<b>218,700</b>	<b>535,800</b>	<b>252,600</b>	<b>268,200</b>

Source: District 2016  
 AFY = acre-feet per year

In 2011, the District completed its IRP to address future water supply challenges and develop an overall strategy for future water supply. The IRP recommended strategies for both expanded local water supplies and imported water supplies. The proposed project, which would use recycled water to recharge groundwater basins for eventual potable use, was recommended as a key local water supply for the District’s future water supply portfolio. Implementation of the proposed project would provide the District with greater reassurance that groundwater supplies could be more reliably available during normal and dry years when imported water supply is less abundant to meet the demands within its service area.

### 7.1.4 Growth Inducement Potential

Implementation of the proposed project would not directly induce population growth, as it does not propose development of new housing that would attract additional population to the area. Further, the proposed project would not result in substantial permanent employment that could indirectly induce population growth. Although construction activities would create some short-term employment opportunities over the duration of the project’s construction period, the number of jobs created would not be substantial and would be expected to be filled by the local labor pool/work force. Operation of the project is anticipated to require up to five full-time employees, which are also anticipated to be supplied by the local labor pool/work force.

The objectives of the proposed project are to produce advanced treated water and combine it with tertiary recycled water for recharge into, and replenishment of, the SJUPMZ; contribute to establishing a local, long-term sustainable water supply for the District's service area; provide increased water supply reliability during droughts and emergencies; increase the amount of groundwater that can be pumped seasonally through recharge and storage of a combination of advanced treated water and tertiary recycled water; and utilize recycled water in an environmentally responsible manner (i.e., no recycled water is discharged outside of the District's service area). The project aims to achieve these objectives by implementing the project in phases to enhance future water supplies by recharging a combination of advanced treated water and tertiary recycled water into the local groundwater basin. While the proposed project would increase the availability and reliability of future water supplies in the District's service area, the project would not create a new water supply that could create an indirect growth inducement potential, as the project would utilize recycled water.

The local jurisdictions that govern land use and development within the proposed project area include the City and the County. Numerous other cities within the District's service area govern land use and development within their respective jurisdictions. These jurisdictions have adopted General Plan documents that guide the type, location, and level of land use and development and have assessed the growth-related impacts associated with planned land use and growth allowed under the General Plans and associated EIRs. In addition, SCAG, the regional authority charged with providing a framework for coordination and orderly regional growth and development, prepared the Regional Comprehensive Plan (RCP), which combines regional planning efforts into a single focused document. The RCP addresses growth management as well as core elements including housing, transportation, air quality and water. The principal objectives of the RCP are to coordinate regional and local decisions with respect to future growth and development and to minimize future environmental impacts. SCAG also prepared the 2016-2040 RTP/SCS, which acts as a long-term planning and management plan for the regional transportation system, providing mitigation measures to off-set the impacts of growth projected in the RCP.

The District does not have the authority to make land use decisions to halt or alter growth and development plans or approvals, nor does it have the authority to address potential significant, secondary effects of planned growth. Authority to implement those measures lies within the individual jurisdictions within the District's service area. The District does, however, have the authority to take actions and implement projects to help mitigate the secondary effects of growth on water resources and water supply services within its service area.

While the proposed project would increase water supply availability and reliability within the District's service area by producing a combination of advanced treated water and tertiary recycled water for recharge into the groundwater basin and eventual extraction to be used as a source to supply potable water demand, it would support planned population growth that has been identified for its service area. By using recycled water, the proposed project would not create a new water supply that would induce future growth; rather, it would increase groundwater supply availability and reliability and would accommodate growth already planned by SCAG and the District within the service area such that water reliability would not be an impediment to already-planned growth. In addition, the project would be constructed in phases, and would not support or encourage growth within its service area to an extent greater than that planned by local jurisdictions and SCAG. As such, implementation of the proposed project would not be indirectly growth-inducing because it would not remove an impediment to growth. The project's growth-inducing impacts would be less than significant.

## 7.2 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

Section 15126.2(c) of the *CEQA Guidelines* requires the identification of significant impacts that would not be avoided, even with the implementation of feasible mitigation/performance measures. The final determination of significance of impacts and of the feasibility of mitigation/performance measures will be made by the District as part of their certification of this EIR. Sections 4.1 through 4.10 of this EIR provide an evaluation of the potentially significant environmental effects and corresponding mitigation/performance measures associated with implementation of the project to avoid or substantially reduce the environmental effect. According to this evaluation, potentially significant environmental effects would be reduced to less-than-significant levels with implementation of identified feasible and enforceable mitigation measures. The project would not result in significant and unavoidable environmental impacts.

## 7.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

Section 15126.2(d) of the *CEQA Guidelines* requires a discussion of significant irreversible environmental changes that would be caused by a proposed project, as: “Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irrecoverable commitments of resources should be evaluated to assure that such current consumption is justified.” Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses;
- The project would involve a large commitment of nonrenewable resources;
- The project involves uses in which irreversible damage would result from any potential environmental accidents associated with the project; or
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Implementation of the project would allow the District to provide increased water supply availability and reliability to its current and projected future users within the District’s service area. In this regard, the project would commit future users to a local and sustainable water supply, which is considered a beneficial effect. Resources that would be permanently and continually consumed by operation of the proposed project include water and electricity, and, to a lesser extent, fossil fuels. The water used, however, would be recycled water. As evaluated in Section 4.5, *Energy*, the project would not use energy resources in an unnecessary, inefficient, or wasteful manner. In addition, the project has the potential to result in substantial energy savings by providing a locally available potable water source, which could reduce future water imports and the energy required to transport the imported water. As such, the project would not involve a large commitment of nonrenewable resources or consume resources in a manner that is not justified.

The *CEQA Guidelines* also require a discussion of the potential for irreversible environmental damage caused by an accident. Generally, the proposed project, as a water treatment and conveyance project, does not involve activities that are dangerous or at high risk of accidents. As discussed in Section 5.2, *Hazards and Hazardous Materials*, chemicals used during project operations at the AWTF site would be stored in conformance with the California Fire Code and California Mechanical Code and would include approved storage containers, mechanical ventilation, spill control and secondary containment, and appropriate hazardous chemicals storage signage. Where required, the chemical storage areas would also include monitor control equipment, gas detection systems, and fire detection systems. Further, the project would prepare and comply with a HMBP and RMP, as managed and overseen by the Riverside County Department of Health Hazardous Materials Branch, which would minimize potential hazards associated with the use of chemicals on site. The project's potential impacts associated with accident conditions would be less than significant and would not result in irreversible damage.

## 8.0 ALTERNATIVES

---

### 8.1 SCOPE OF ALTERNATIVES ANALYSIS

The CEQA statutes require an EIR to describe and evaluate a range of reasonable alternatives to the proposed project, or alternatives to the location of a proposed project. The purpose of the alternatives analysis is to explore ways that most of the basic objectives of a project could be attained while reducing or avoiding significant environmental impacts of the project as proposed. This approach is intended to foster informed decision-making and public participation in the environmental process.

This chapter evaluates alternatives to the project and examines the potential environmental impacts associated with each alternative. The *CEQA Guidelines* indicate that EIRs are required to evaluate a “...range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project” (Section 15126.6[a] *CEQA Guidelines*). According to the *CEQA Guidelines*, not every conceivable alternative must be addressed, nor do infeasible alternatives need be considered. Section 15126.6 of the *CEQA Guidelines* lists the factors that may be taken into account when addressing the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, other plans or regulatory limitations, and jurisdictional boundaries. The Guidelines also state that the discussion of alternatives should focus on “...alternatives capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives could impede to some degree the attainment of the project objectives or would be more costly” (Section 15166.6[b] *CEQA Guidelines*). CEQA further directs that “...the significant effects of the alternatives shall be discussed, but in less detail than the significant effects of the project as proposed” (Section 15126.6[d] *CEQA Guidelines*).

### 8.2 PROJECT OBJECTIVES

The project includes a list of key objectives that clarify the intent of implementation of the project, as stated in Section 2.3 of this EIR. The objectives of the project are as follows:

- Produce advanced treated water and combine it with tertiary recycled water for recharge into, and replenishment of, the SJUPMZ;
- Contribute to establishing a local, long-term sustainable water supply for the District’s service area;
- Provide increased water supply reliability during droughts and emergencies;
- Increase the amount of groundwater that can be pumped seasonally through recharge and storage of a combination of advanced treated water and tertiary recycled water; and
- Utilize recycled water in an environmentally responsible manner (i.e., no recycled water is discharged outside of the District’s service area).

## **8.3 ALTERNATIVES CONSIDERED BUT REJECTED**

### **8.3.1 24-inch Advanced Treated Water Conveyance Pipeline**

Instead of sliplining the existing 18-inch pipeline with a 16-inch HDPE pipe as described in the proposed project, this alternative would construct a new 24-inch HDPE pipe to convey advanced treated water from the SJVRWRF to the Alessandro Blending Station. The new 24-inch pipeline would follow a similar route to the existing 18-inch pipeline that would be sliplined under the proposed project. With the larger diameter, the 24-inch pipe would have a greater flow volume capability. However, this alternative would involve a much greater disturbance footprint than sliplining the 18-inch pipeline, which would likely result in greater environmental impacts and require more easements and encroachment permits. As a result, this alternative was rejected from further consideration.

### **8.3.2 36-inch Conveyance Pipeline Along the San Jacinto River**

Under this alternative, the 36-inch pipeline that would convey the combined advanced treated water and tertiary recycled water from the Alessandro Blending Station to the Mountain Avenue West Recharge Basin would follow a route along an earthen channel located adjacent to the raised roadway that runs along the San Jacinto River instead of along the shoulder of Ramona Expressway. Whereas the 36-inch pipeline along Ramona Expressway would primarily be within the existing road right-of-way, the alignment under this alternative would run mainly through private properties and existing easements, thus requiring extensive coordination to determine regulatory feasibility. Therefore, the alternative for the pipeline along the San Jacinto River was rejected.

## **8.4 ALTERNATIVES ANALYZED**

The section presents an evaluation of three alternatives to the proposed project:

- Alternative 1: No Project
- Alternative 2: Brine Discharge Pipeline

For each alternative, a brief description is included, followed by a summary impact analysis relative to the project, and an assessment of the degree to which the alternative would meet the goals and objectives of the project.

### **8.4.1 Alternative 1: No Project**

Section 15126.6(e) of the *CEQA Guidelines* requires a “No Project” alternative be addressed in an EIR. Under this alternative, the proposed project would not be implemented. The land for the AWTF and brine management system would remain undeveloped and the conveyance pipelines would not be installed. The additional recharge of 4,000 AFY during Phase I and 15,000 AFY during Phase II into the Mountain Avenue West Recharge Basin would not occur.

#### **8.4.1.1 Impact Analysis**

The No Project Alternative would avoid the potentially significant environmental impacts identified for the project. Compared to the proposed project, all currently identified potentially significant impacts

related to biological resources, cultural resources and tribal cultural resources, hydrology and water quality, noise, and transportation would not occur under the No Project Alternative. In addition, although the proposed project would not result in potentially significant impacts associated with air pollutant emissions, GHG emissions, or energy use during construction, emissions and energy usage would be reduced under the No Project Alternative. Long-term impacts related to energy and GHG emissions, however, would increase under the No Project Alternative as water demand in the District's service area would increase, and without the additional recharge of water that would occur under the proposed project, energy and GHG emissions would increase from the increased conveyance of imported water. In addition, under the No Project Alternative, groundwater quality would not be improved; impacts related to groundwater quality would therefore increase compared to the proposed project.

#### **8.4.1.2 Ability to Accomplish Project Objectives**

The No Project Alternative would meet none of the project objectives. Without the proposed project, advanced treated water would not be produced and would not be combined with tertiary recycled water for recharge into, and replenishment of, the SJUPMZ. A long-term sustainable water supply for the District's service area would not be bolstered and water supply reliability during droughts and emergencies would not be increased. The amount of groundwater that can be pumped seasonally would not be increased through recharge and storage of a combination of advanced treated water and tertiary recycled water. This alternative would also not support the objectives of utilized recycled water in an environmentally responsible manner.

### **8.4.2 Alternative 2: Brine Discharge Pipeline**

The Brine Discharge Pipeline Alternative would include the installation of a new approximately 7,350-linear-foot, 6-inch force main for the disposal of brine waste generated at the AWTF as part of the advanced water treatment process. The force main would connect from the AWTF south within the Sanderson Avenue right-of-way to the existing Sanderson Lift Station located on the west side of Sanderson Avenue, approximately 500 feet north of Cottonwood Avenue (see Figure 8-1, *Brine Discharge Pipeline Alternative*). From the Sanderson Lift Station, brine discharge flows would be conveyed south to the Cawston Lift Station located near the intersection of Cawston Avenue and Walden Weaver Road. From here, flows would be conveyed to the Perris Valley Regional Water Reclamation Facility (PVRWRF) via an existing gravity sewer. The brine management system proposed as part of the project would not be constructed. All other proposed facilities, including the AWTF, sliplined 18-inch pipeline, Alessandro Blending Station, and new 36-inch pipeline would remain the same under this alternative as the proposed project.

#### **8.4.2.1 Impact Analysis**

##### **Agriculture and Forestry Resources**

The Brine Discharge Pipeline Alternative would not include the brine management system and therefore would permanently convert less land mapped as Unique Farmland and Farmland of Statewide Importance and that is currently utilized for agricultural purposes to non-agricultural use compared to the proposed project. Impacts under the Brine Discharge Pipeline Alternative would be reduced but would remain less than significant.

## **Air Quality**

The Brine Discharge Pipeline Alternative would avoid air pollutant emissions associated with grading and construction of the brine management system. Air pollutant emissions would still occur from installation of the force main, which would involve the use of heavy equipment for trenching, pipe install, trench backfilling, and repaving. Overall construction air pollutant emissions are anticipated to be less under the Brine Discharge Pipeline Alternative than the proposed project. Impacts to sensitive receptors could increase as construction of the force main under the Brine Discharge Pipeline Alternative would occur near a potential sensitive receptor (a single-family residence located on the east side of Sanderson Avenue), whereas construction of the brine management system would not occur in proximity to sensitive receptors. Due to the limited number of pieces of construction equipment anticipated to be required simultaneously for installation of the force main, impacts to sensitive receptors would likely remain less than significant. Odor impacts would be similar to the proposed project and would be less than significant.

## **Biological Resources**

The Brine Discharge Pipeline Alternative would result in similar impacts to biological resources as the proposed project. While the brine management system would not be constructed, there are no potential impacts to sensitive vegetation communities associated with the brine management system that would be avoided under the Brine Discharge Pipeline Alternative. Impacts to sensitive vegetation communities would also not be increased as the force main proposed under the Brine Discharge Pipeline would be located within the roadway and would only impact developed land (refer to Table 3 and Figure 9 in Appendix C for a comparison of vegetation community/land cover impacts under the proposed project and under this alternative). Potential construction-related impacts to smooth tarplant, chaparral sand-verbena, nesting birds and raptors, and burrowing owl under the Brine Discharge Pipeline Alternative would remain the same as those under the proposed project, and mitigation would still be required, as project facilities would continue to be located proximate to habitat suitable for these sensitive wildlife species. Similarly, potential indirect impacts to jurisdictional features under the Brine Discharge Pipeline Alternative would be the same as those under the proposed project, and mitigation would still be required, because the project components in close proximity to potentially jurisdictional features (the 18-inch pipeline to be sliplined and the 36-inch pipeline) would continue to be included as part of the project under the Brine Discharge Pipeline Alternative. Similar to the proposed project, the Brine Discharge Pipeline Alternative would not result in significant impacts related to wildlife movement, local policies and ordinances, and adopted conservation plans (the MSHCP).

## **Cultural Resources**

The Brine Discharge Pipeline Alternative would likely result in reduced potential impacts to unknown archaeological resources. The Brine Discharge Pipeline Alternative would not include the brine management system and therefore would avoid potential impacts to unknown resources that may be located at the brine management system site, which was unable to be surveyed due to active agricultural use. In addition, the force main proposed under the Brine Pipeline Discharge Alternative would be located within in roadway, where there is a lower likelihood that unknown resources are present due to prior disturbance; however, mitigation related to archaeological monitoring would still be required under this alternative. The force main proposed under the Brine Discharge Pipeline Alternative would intersect two known cultural resources, both of which are NRHP/CRHR eligible: the Casa Loma Siphon/Canal of the Colorado River Aqueduct (CA-RIV-6726H) and the San Diego Aqueduct

and San Diego Canal (CA-RIV-8195); however, because the force main would be located within the roadway, it is not anticipated to directly affect these resources. As with the proposed project, no impacts to historic resources are likely to occur under the Brine Discharge Pipeline Alternative.

## **Energy**

The Brine Discharge Pipeline Alternative would avoid energy use associated with grading and construction of the brine management system. Energy would still be required for the installation of the force main, which would involve the use of heavy equipment for trenching, pipe install, trench backfilling, and repaving. Overall construction energy use is anticipated to be less under the Brine Discharge Pipeline Alternative than the proposed project. Operational energy use would vary slightly (associated with energy used for the force main instead of energy used for the pumps at the brine management system) but is anticipated to be similar to the proposed project. Energy savings associated with the reduced reliance on imported water conveyance would be the same as the proposed project as the annual recharge would be the remain the same under the Brine Discharge Pipeline Alternative.

## **Geology and Soils**

The Brine Discharge Pipeline Alternative would result in similar impacts related to exposure to seismic hazards and geologic instability because the force main proposed under this alternative would be located in the same general area as the other project components (all of which except the brine management system would remain) and would be exposed to similar seismic hazards and geologic instability. As with the proposed project, construction under this alternative would implement project-specific geotechnical measures and conform with applicable regulatory/industry standards, in which case impacts would remain less than significant. Because the substantial amount of grading that would be required for the brine management system under the proposed project would not occur under the Brine Discharge Pipeline Alternative, potential impacts related to erosion and sedimentation would be reduced and would remain less than significant. Potential impacts to paleontological resources would also be reduced due to the reduced grading, but paleontological monitoring mitigation would still be required under this alternative.

## **Greenhouse Gas Emissions**

The Brine Discharge Pipeline Alternative would avoid GHG emissions associated with grading and construction of the brine management system. GHG emissions would still occur from installation of the force main, which would involve the use of heavy equipment for trenching, pipe install, trench backfilling, and repaving. Overall construction GHG emissions are anticipated to be less under the Brine Discharge Pipeline Alternative than the proposed project. Operational GHG emissions would vary slightly (associated with energy used for the force main instead of energy used for the pumps at the brine management system) but are anticipated to be similar to the proposed project. GHG emissions savings associated with the reduced reliance on imported water conveyance would be the same as the proposed project as the annual recharge would be the remain the same under the Brine Discharge Pipeline Alternative.

## **Hydrology and Water Quality**

The Brine Discharge Pipeline Alternative would result in similar potential impacts to water quality during construction as related to the use of hazardous materials (e.g., fuels, lubricants, and solvents); however, potential impacts to water quality as related to erosion and sedimentation would be reduced because

the substantial amount of grading that would be required for the brine management system under the proposed project would not occur under the Brine Discharge Pipeline Alternative. Similarly, because the brine management system would not be constructed under this alternative, impacts related to drainage would be reduced and would remain less than significant. Impacts associated with groundwater would remain the same because the Brine Discharge Pipeline Alternative would involve the same level of recharge into the groundwater table as the proposed project. Impacts would continue to be less than significant.

## **Noise**

The Brine Discharge Pipeline Alternative would result in slightly increased potential noise impacts when compared to the proposed project. While no noise would be generated for construction of the brine management system under this alternative, no significant noise impacts were previously identified associated with construction of the brine management system due to the lack of NSLUs in the area. Construction activities associated with installation of the force main in Sanderson Avenue under this alternative would include trenching, pipeline installation, trench backfilling, and repaving, all of which would require heavy construction equipment that would generate noise. The single-family residence located along Sanderson Avenue adjacent to the force main alignment would be exposed to such noise. Mitigation to ensure construction occurs within the allowable hours specified in the City's Municipal Code would still be required. Impacts would be less than significant with the mitigation, as with the proposed project. Potential construction noise impacts to other NSLUs that would occur under the proposed project, specifically to the single-family residences along Ramona Expressway/SR 79, would remain the same under the Brine Discharge Pipeline Alternative. Similarly, operational noise generation would be the same and would be less than significant.

## **Transportation**

The Brine Discharge Pipeline Alternative would involve the same operational trip generation as the proposed project; therefore, operational impacts would be the same and would be less than significant. On-road haul truck activity during construction would also be similar to the proposed project under this alternative. The Brine Discharge Pipeline Alternative would, however, result in increased impacts to roadway circulation, traffic hazards, and emergency access due to the increased amount of construction work that would occur within the roadway right-of-way. In addition to the work within Ramona Expressway/SR 79 that would result in potentially significant impacts and require mitigation (as under the proposed project), installation of the force main included as part of the Brine Discharge Pipeline Alternative would occur within Sanderson Avenue and would require partial or full lane closures. As with the work in Ramona Expressway/SR 79, work within Sanderson Avenue would require mitigation in the form of a TCP to allow for continued roadway function and emergency access, as well as to avoid traffic-related hazards. With mitigation, impacts are anticipated to be less than significant, as under the proposed project.

### **8.4.2.2 Ability to Accomplish Project Objectives**

The Brine Discharge Pipeline Alternative would accomplish all the objectives of the project. It would produce advanced treated water and combine it with tertiary recycled water for recharge into, and replenishment of, the SJUPMZ, thereby contributing to establishing a long-term sustainable water supply for the District's service area. Through this recharge it would provide increased water supply reliability during droughts and emergencies and it would increase the amount of groundwater that can

be pumped seasonally through recharge and storage of a combination of advanced treated water and tertiary recycled water. It would also utilize recycled water in an environmentally responsible manner by not discharging recycled water outside of the District’s service area.

### 8.4.3 Summary

Table 8-1, *Summary of Analysis for Alternatives to the Project*, provides a summary of the impacts of the alternatives compared to the proposed project. A summary of how each alternative fulfills each of the project objectives is provided in Table 8-2, *Summary of the Project Objectives*.

**Table 8-1  
SUMMARY OF ANALYSIS FOR ALTERNATIVES TO THE PROJECT**

Issue Area	Proposed Project Without Mitigation	Proposed Project With Mitigation	No Project Alternative	Brine Discharge Pipeline Alternative
<b>4.1 Agricultural and Forestry Resources</b>				
Prime Farmland, Unique Farmland, or Farmland of Statewide Importance	LS	LS	▼	▼
Williamson Act Contract	NI	NI	=	=
Zoning for Forest Land	NI	NI	=	=
Loss or Conversion of Forest Land	NI	NI	=	=
Conversion to Non-agricultural or Non-forest Use	LS	LS	▼	▼
<b>4.2 Air Quality</b>				
Conflicts with Air Quality Plans	LS	LS	▼	=
Air Quality Standards	LS	LS	▼	▼
Sensitive Receptors	LS	LS	▼	▲
Odors	LS	LS	▼	=
<b>4.3 Biological Resources</b>				
Sensitive Species	PS	LS	▼	=
Sensitive Habitats	NI	NI	=	=
Wetlands	PS	LS	▼	=
Wildlife Movement	LS	LS	▼	=
Local Policies	NI	NI	▼	=
Conservation Planning	NI	NI	▼	=
<b>4.4 Cultural Resources and Tribal Cultural Resources</b>				
Historical Resources	NI	NI	=	=
Archaeological Resources	PS	LS	▼	■
Human Remains	PS	LS	▼	■
Tribal Cultural Resources	PS	LS	▼	■
<b>4.5 Energy</b>				
Wasteful, Inefficient, or Unnecessary Energy Consumption	LS	LS	▲	▼
Conflict with Renewable Energy Plans	LS	LS	▲	▼

**Table 8-1 (cont.)  
SUMMARY OF ANALYSIS FOR ALTERNATIVES TO THE PROJECT**

Issue Area	Proposed Project Without Mitigation	Proposed Project With Mitigation	No Project Alternative	Brine Discharge Pipeline Alternative
<b>4.6 Geology and Soils</b>				
Seismic Hazards	LS	LS	▼	=
Erosion and Sedimentation	LS	LS	▼	▼
Geologic Instability	LS	LS	▼	=
Expansive Soil	LS	LS	▼	=
Septic Tanks	NI	NI	=	=
Paleontological Resources	PS	LS	▼	■
<b>4.7 Greenhouse Gas Emissions</b>				
Greenhouse Gas Emissions	LS	LS	▼/▲	▼
Conflict with Plans and Policies	LS	LS	▼/▲	=
<b>4.8 Hydrology and Water Quality</b>				
Water Quality	LS	LS	▲	▼
Groundwater Supply	LS	LS	▲	=
Drainage	LS	LS	▼	▼
Flood Hazard Areas	LS	LS	▼	=
Water Quality Plans	LS	LS	▲	=
<b>4.9 Noise</b>				
Increase in Ambient Noise	PS	LS	▼	▲
Vibration	LS	LS	▼	=
Aircraft Noise	LS	LS	▼	=
<b>4.10 Transportation</b>				
Traffic Circulation	PS	LS	▼	▲
Vehicle Miles Traveled	LS	LS	▼	=
Hazardous Design Features	PS	LS	▼	▲
Emergency Access	PS	LS	▼	▲

- ▲ Alternative would result in an increased level of impact when compared to the proposed project
- = Alternative would result in a similar level of impact when compared to proposed project
- Alternative would result in a reduced level of impact when compared to the proposed project, but impacts would remain significant without mitigation.
- ▼ Alternative would result in a reduced level of impact when compared to proposed project and would not require mitigation.

PS = Potentially significant impact; LS = Less than significant impact; NI = No impact

**Table 8-2  
SUMMARY OF PROJECT OBJECTIVES**

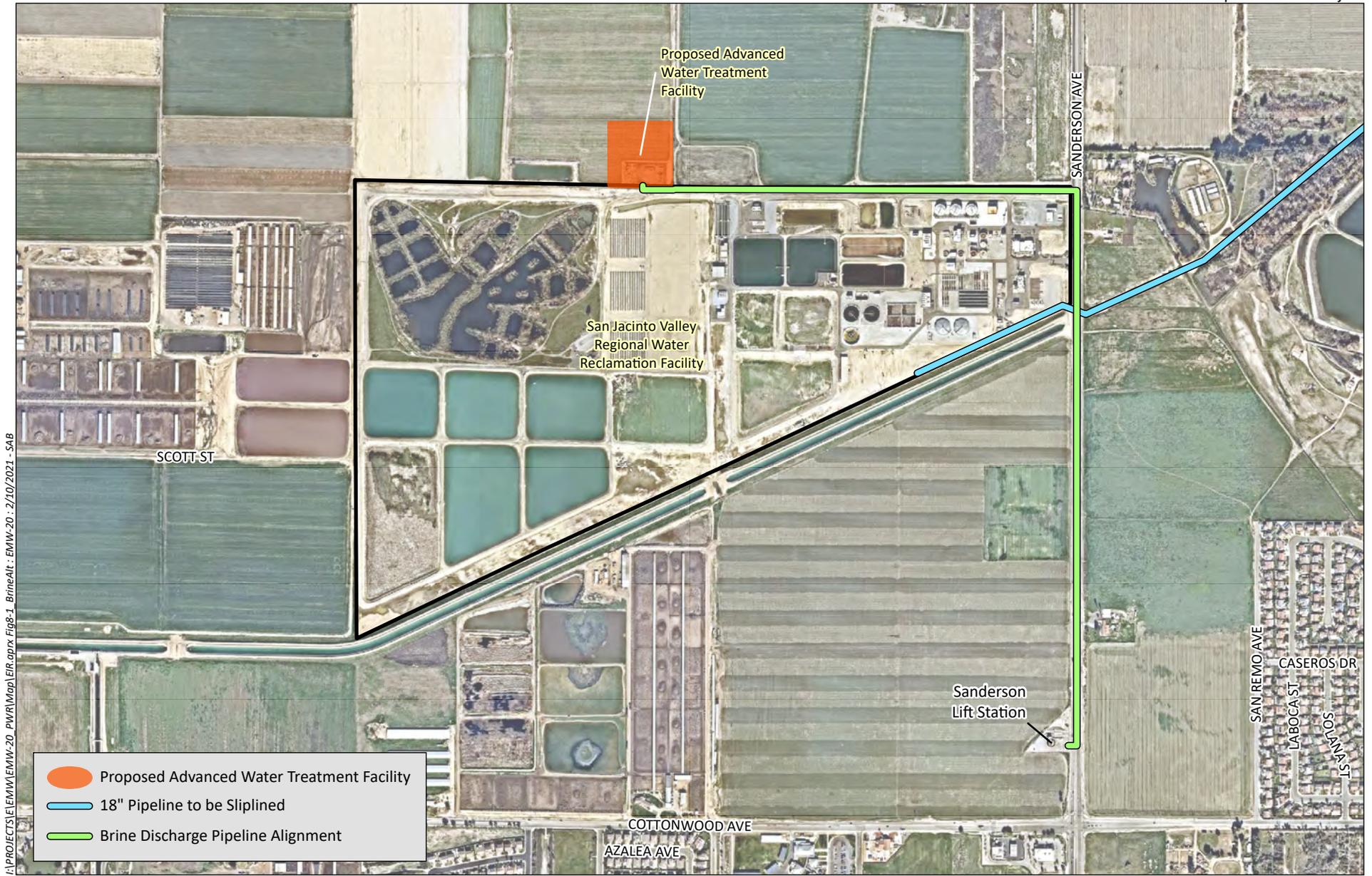
Project Objective	No Project Alternative	Brine Discharge Pipeline Alternative
Produce advanced treated water and combine it with tertiary recycled water for recharge into, and replenishment of, the SJUPMZ.	No	Yes
Contribute to establishing a long-term sustainable water supply for the District’s service area.	No	Yes
Provide increased water supply reliability during droughts and emergencies.	No	Yes
Increase the amount of groundwater that can be pumped seasonally through recharge and storage of a combination of advanced treated water and tertiary recycled water.	No	Yes
Utilize recycled water in an environmentally responsible manner (i.e., no recycled water is discharged outside of the District’s service area).	No	Yes

## 8.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

*CEQA Guidelines* Section 15126.6(e)(2) requires that an EIR identify the environmentally superior alternative among the alternatives that are evaluated. Under the No Project Alternative, the proposed project would not be implemented, and the alternative would therefore avoid potentially significant environmental impacts to biological resources, cultural resources and tribal cultural resources, geology and soils (paleontological resources), noise, and transportation identified for the proposed project. In the short term, the No Project alternative would result in reduced impacts related to construction with respect to air quality, energy, GHG emissions (despite impacts related to air quality, energy, and GHG emissions being less than significant under the proposed project), and hydrology and water quality. However, in the long term, regional benefits related to energy use and reduction in indirect GHG emissions from lowering the amount of water needed to be transported from Northern California would not be realized. Further, long-term benefits from improving groundwater quality would also not be achieved. In addition, the No Project Alternative would not meet any of the project objectives.

*CEQA Guidelines* Section 15126.6(e)(2) also requires that an EIR identify another alternative as environmentally superior, besides the No Project Alternative. In this case, the next environmentally superior alternative is the Brine Discharge Pipeline Alternative. The Brine Discharge Pipeline Alternative would still incur impacts related to construction and operation; however, impacts related to air quality, GHGs, and noise would be reduced due to less grading, which would result in reduced use of off-road heavy equipment and dust generation. While some impacts would occur closer to residences, such impacts are anticipated to be less than significant.

This page intentionally left blank



- Proposed Advanced Water Treatment Facility
- 18" Pipeline to be Sliplined
- Brine Discharge Pipeline Alignment



Source: Aerial (NearMap, 2020)

## 9.0 REFERENCES

---

- California Air Resources Board (CARB). 2021. iADAM Air Quality Data Statistics. Available from: <https://www.arb.ca.gov/adam/topfour/topfour1.php>. Accessed February.
2020. Air Quality Standards. Available from: <https://ww2.arb.ca.gov/resources/background-air-quality-standards>.
2019. California Greenhouse Gas Inventory for 2000-2017 – By Sector and Activity.
2018. Overview: Diesel Exhaust and Health. Available from: <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>.
2017. The 2017 Climate Change Scoping Plan Update. 2017. [https://www.arb.ca.gov/cc/scopingplan/2030sp\\_pp\\_final.pdf](https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf). January 20, 2017
2013. Clean Car Standards – Pavley, Assembly Bill 1493. Available from: <http://www.arb.ca.gov/cc/ccms/ccms.htm>.
2007. California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit. November 16.
2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October.
- California Department of Conservation (CDC). 2020. DOC Maps: Geologic Hazards. Available from: <https://maps.conservation.ca.gov/geologichazards/>. Accessed May 2020.
2017. Farmland of Local Importance (2016). Available from: [https://www.conservation.ca.gov/dlrp/fmmp/Documents/Farmland\\_of\\_Local\\_Importance\\_2016.pdf](https://www.conservation.ca.gov/dlrp/fmmp/Documents/Farmland_of_Local_Importance_2016.pdf). Accessed February 2020.
2016. California Important Farmland Finder. Available from: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed: June 2020.
2015. Fault Activity Map of California (2010). Available from: <https://maps.conservation.ca.gov/cgs/fam/>. Accessed May 2020.
1997. California Agricultural Land Evaluation and Site Assessment Model Instruction Manual. Available from: <https://www.conservation.ca.gov/dlrp/Documents/lesamodl.pdf>. Accessed June 2020.
- California Department of Fish and Wildlife (CDFW). 2012. *Staff Report on Burrowing Owl Mitigation*. Available from: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843>.
- California Department of Forestry and Fire Protection (CAL FIRE). 2020. California Fire Hazard Severity Zone Viewer. Available from: <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>. Accessed May 2020.

California Department of Resources Recycling and Recovery (CalRecycle). 2019. Solid Waste Information System: Lamb Canyon Landfill (33-AA-0007). Available from: <https://www2.calrecycle.ca.gov/swfacilities/Directory/33-AA-0007>. Accessed May 2020.

California Department of Toxic Substances Control (DTSC). 2020. EnviroStor. Available from: <https://www.envirostor.dtsc.ca.gov/public/>. Accessed May 2020.

California Department of Transportation (Caltrans). 2020. Scenic Highways. Available from <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>. Accessed May 2020.

2013a. Technical Noise Supplement for the Traffic Noise Analysis Protocol. September.

2013b. Transportation and Construction Vibration Guidance Manual. September.

California Energy Commission (CEC). 2020a. Final 2019 Integrated Energy Policy Report. February.

2020b. 2018 Total System Electric Generation. Available from: <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2018-total-system-electric-generation>. Accessed June 2020.

2020c. Status of All Projects – California Energy Commission Energy Facility Status, Power Plant Projects Since 1996. Available from: [https://ww2.energy.ca.gov/sitingcases/all\\_projects\\_cms.html](https://ww2.energy.ca.gov/sitingcases/all_projects_cms.html). Accessed June 2020.

2019a. Supply and Demand of Natural Gas in California. Available from [https://ww2.energy.ca.gov/almanac/naturalgas\\_data/overview.html](https://ww2.energy.ca.gov/almanac/naturalgas_data/overview.html). Accessed June 2020.

2019b. Transportation Energy. Available from: <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy>. Accessed June 2020.

2018. California Energy Demand 2018-2030 Revised Forecast. February.

2016a. Electricity Consumption by County. Available from: <http://www.ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed June 2020.

2016b. Gas Consumption by County. Available from: <http://www.ecdms.energy.ca.gov/gasbycounty.aspx>. Accessed June 2020.

2005. California's Water-Energy Relationship Final Staff Report. November.

California Geological Survey (CGS) and California State Parks. 2015. Geological Gems of California State Parks, Special Report 230.

California Pollution Control Officers Association (CAPCOA). 2019. Health Effects. Available from: <http://www.capcoa.org/health-effects/>. Accessed April 2020.

- CDM Smith. 2018. Eastern Municipal Water District Purified Water Replenishment (PWR) Project Final Preliminary Design Report (PDR). May.
2017. Alternative Water Quality Data Review Technical Memorandum. March 7, Revised September 13.
2016. PWR Program Definition Study. May.
2014. San Jacinto Upper Pressure Management Zone (SJUPMZ) Indirect Potable Reuse Phase I Study. January.
- County of Riverside Agricultural Commissioner's Office. 2019. Riverside County 2018 Agricultural Production Report.
- Eastern Municipal Water District (District). 2020. Personal communication between Joseph Broadhead of the District and Joanne Dramko of HELIX. Email sent 6/16/2020.
2018. Draft San Jacinto Valley Water Banking – Enhanced Recharge and Recovery Program. Program and Project Environmental Report. April.
2016. Final 2015 Urban Water Management Plan. June.
- Faber-Langendoen, D., J. Nichols, L. Master, K. Snow, A. Tomaino, R. Bittman, G. Hammerson, B. Heidel, L. Ramsay, A. Teucher, and B. Young. 2012. NatureServe Conservation Status Assessments: Methodology for Assigning Ranks, Revised Edition. June. Available at: [http://www.natureserve.org/sites/default/files/publications/files/natureserveconservationstatusmethodology\\_jun12\\_0.pdf](http://www.natureserve.org/sites/default/files/publications/files/natureserveconservationstatusmethodology_jun12_0.pdf).
- Federal Emergency Management Agency (FEMA). 2020. Flood Hazard Maps. Available from: <https://msc.fema.gov/portal/home#>.
2016. The Importance of Building Codes in Earthquake-Prone Communities Fact Sheet. Available from: <https://www.fema.gov/media-library/assets/documents/22851>. Accessed May 2020.
- HELIX Environmental Planning, Inc. (HELIX). 2021. Air Quality/Greenhouse Gas Emissions Technical Report. February.
- 2020a Biological Technical Report. September.
- 2020b Cultural Survey Report. May.
- Hemet, City of. 2020. Personal communication between Monique Alaniz-Flejter of the City of Hemet and Hunter Stapp of HELIX. Email received July 8, 2020.
- Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, 156 pp.

Intergovernmental Panel on Climate Change (IPCC). 2014. Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

2013. Climate Change 2013: The Physical Science Basis. Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

2007. Climate Change 2007: The Physical Science Basis. Summary for Policymakers. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. February.

Kleinfelder. 2017. Geotechnical Engineering Services Report. EMWD Indirect Potable Reuse Preliminary Design Report.

National Aeronautics and Space Administration (NASA), Goddard Institute for Space Studies. 2018. NASA News & Features Releases. Long-Term Warming Trend Continued in 2017: NASA, NOAA. <https://www.giss.nasa.gov/research/news/20180118/>.

National Oceanic and Atmospheric Administration (NOAA). 2020. Trends in Atmospheric Carbon Dioxide. Available from: <https://www.esrl.noaa.gov/gmd/ccgg/trends/index.html>. Accessed May 2020.

Nett Technologies Inc. 2018. Diesel Emissions FAQ: What are diesel emissions? Accessed September 11, 2018. Available from: <https://www.nettinc.com/information/emissions-faq/what-are-diesel-emissions>.

Parker, Patricia L., and Thomas F. King. 1998. *Guidelines for Evaluating and Documenting Traditional Cultural Properties*. National Park Service, Washington, D.C.

Public Policy Institute of California. 2016. Energy and Water. October. Available from: [https://www.ppic.org/content/pubs/report/R\\_1016AER.pdf](https://www.ppic.org/content/pubs/report/R_1016AER.pdf).

Regional Water Quality Control Board (RWQCB). 2017. WQIPs. Available from: [https://www.waterboards.ca.gov/santaana/water\\_issues/programs/tmdl/303d.html](https://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/303d.html).

1995. Watershed Mapping. Available from: [https://www.waterboards.ca.gov/rwqcb9/water\\_issues/programs/basin\\_plan/docs/sdrwqcb\\_basinplanmap.pdf](https://www.waterboards.ca.gov/rwqcb9/water_issues/programs/basin_plan/docs/sdrwqcb_basinplanmap.pdf).

1986. Basin Plan. Available from: [https://www.waterboards.ca.gov/santaana/water\\_issues/programs/basin\\_plan/docs/rb8\\_map\\_index\\_hydrologic\\_areas.pdf](https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/rb8_map_index_hydrologic_areas.pdf). Accessed June 2020.

Riverside, County of. 2020. Riverside County Information Technology – Map My County. Available from: [https://gis.countyofriverside.us/Html5Viewer/?viewer=MMC\\_Public](https://gis.countyofriverside.us/Html5Viewer/?viewer=MMC_Public). Accessed June 2020.

2019. County of Riverside Climate Plan Update. November.

Riverside, County of (cont.)

2018. Local Hazard Mitigation Plan. Available from:  
[https://www.rivcoemd.org/Portals/0/FINAL%20PUBLIC%20VERSION%20Riv\\_Co\\_%202018%20Multi%20Jurisdictional%20Local%20Hazard%20Mitigation%20Plan.pdf](https://www.rivcoemd.org/Portals/0/FINAL%20PUBLIC%20VERSION%20Riv_Co_%202018%20Multi%20Jurisdictional%20Local%20Hazard%20Mitigation%20Plan.pdf).

2016. County of Riverside General Plan – San Jacinto Valley Area Plan. December 6.

2015. County of Riverside General Plan. December 8.

Riverside County Airport Land Use Commission. 2017. Hemet-Ryan Airport Land Use Compatibility Plan. February 9.

San Jacinto, City of. 2020. CEQA: Environmental Documents. Available from:  
[https://www.sanjacintoca.gov/city\\_departments/community-development/planning/ceqa](https://www.sanjacintoca.gov/city_departments/community-development/planning/ceqa).  
Accessed June 2020.

2006. General Plan. May 4. Amended October 19, 2012.

Sawyer, J., T. Keeler-Wolf, and J. Evans. 2009. A Manual of California Vegetation, Second 2nd Edition.

Soil Conservation Service (SCS). 1971. Soil Survey for the Western Riverside Area, California. Available from: [https://www.blogs.nrcs.usda.gov/Internet/FSE\\_MANUSCRIPTS/california/westernriversideCA1971/westernriversideCA1971.pdf](https://www.blogs.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/westernriversideCA1971/westernriversideCA1971.pdf). Accessed June 2020.

South Coast Air Quality Management District (SCAQMD). 2017a. Final 2016 Air Quality Management Plan. Available: <https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp>. March.

2017b. California Emission Estimator Model (CalEEMod) Version 2016.3.2.

2016. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin. Available from:  
<http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf>. November.

2015. South Coast Air Quality Management District Air Quality Significance Thresholds. Available from: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>.

2010. Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting #15 (slide presentation). Diamond Bar, CA. SCAQMD. Available from:  
[http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2). September 28.

2009. Mass Rate Localized Significance Thresholds Look-up Tables. Available from:  
<http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2>. October.

South Coast Air Quality Management District (SCAQMD) (cont.)

2005. Rule 403. Fugitive dust. June. Available from: <https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf?sfvrsn=4>.

South Coast Wildlands. 2008. South Coast missing linkages: A wildland network for the South Coast ecoregion. Retrieved from: <http://www.scwildlands.org/reports/SCMLRegionalReport.pdf>.  
March.

Southern California Association of Governments (SCAG). 2016. 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). April.

Southern California Earthquake Data Center (SCEDC). 2013. Significant Earthquakes and Faults. Available from: <https://scedc.caltech.edu/significant/index.html>. Accessed May 2020.

Southern California Edison (SCE). 2020. About Us – Who We Are. Available from: <https://www.sce.com/about-us/who-we-are>. Accessed June 2020.

2019a. 2018 Power Content Label. Available from: <https://www.sce.com/sites/default/files/inline-files/2018SCEPCL.pdf>. Accessed June 2020.

2019b. Tehachapi Renewable Transmission Project. Available from: <https://www.sce.com/about-us/reliability/upgrading-transmission/TRTP-4-11>. Accessed June 2020.

State Water Resources Control Board (SWRCB). 2020. GeoTracker. Available from: <https://geotracker.waterboards.ca.gov/>. Accessed May 2020.

Surface Water Ambient Monitoring Program (SWAMP). 2017. Annual Report. Available from: [https://www.waterboards.ca.gov/water\\_issues/programs/swamp/docs/reglrpts/r8\\_2017\\_bioassessment\\_report.pdf](https://www.waterboards.ca.gov/water_issues/programs/swamp/docs/reglrpts/r8_2017_bioassessment_report.pdf).

U.S. Department of Agriculture (USDA). 2020. Web Soil Survey. Available from <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed May 2020.

U.S. Department of Transportation (USDOT). 2008. Roadway Construction Noise Model (RCNM).

U.S. Environmental Protection Agency (USEPA). 2015. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013. April 15. Available from: <https://www.epa.gov/sites/production/files/2016-03/documents/us-ghg-inventory-2015-chapter-executive-summary.pdf>.

U.S. Environmental Protection Agency and U.S. Department of Transportation, National Highway Traffic Safety Administration. 2012. 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards. October 15. Available from: [https://one.nhtsa.gov/staticfiles/rulemaking/pdf/cape/2017-25\\_CAFE\\_Final\\_Rule.pdf](https://one.nhtsa.gov/staticfiles/rulemaking/pdf/cape/2017-25_CAFE_Final_Rule.pdf).

U.S. Geological Survey (USGS). 2004. Landslide Types and Processes. Available from: <https://pubs.usgs.gov/fs/2004/3072/fs-2004-3072.html>. Accessed May 2020.

Western Regional Climate Center (WRCC). 2016. Period of Record Monthly Climate Summary, Hemet, California (043896). Available from: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3896>.

Western Riverside Council of Governments. 2014. Subregional Climate Action Plan. Available from: <http://www.wrcog.cog.ca.us/DocumentCenter/View/188/Subregional-Climate-Action-Plan-CAP-PDF?bidId=>.

World Resources Institute. 2020. CAIT Climate Data Explorer. Accessed April 2020. Available from: <http://cait2.wri.org/>.

This page intentionally left blank

## 10.0 LIST OF PREPARERS

---

The following persons participated in preparation of the EIR and associated technical studies:

### **Eastern Municipal Water District**

Al Javier	Director of Environmental Regulatory Compliance
Joseph Broadhead	Principal Water Resources Specialist-CEQA/NEPA
Alison Torres	Senior Air Quality Compliance Analyst
David P. Ahles, P.E.	Principal Civil Engineer
John Wuerth	Senior Recycled Water Program Analyst
Fermin Balvaneda, P.E.	Civil Engineer II

### **HELIX Environmental Planning, Inc.**

EIR Preparation and Management

Andrea Bitterling	Principal-in-Charge
Joanne Dramko, AICP	Project Manager
Amy Mila de la Roca	Contract Manager, QA/QC
Hunter Stapp	Environmental Planner
Brendan Sullivan	Environmental Planner
Sean Bohac	GIS Specialist
Ana Topete	Document Specialist

Cultural Resources Survey

Mary Robbins-Wade, RPA	Cultural Resources Group Manager, QA/QC
Theodore G. Cooley, RPA	Senior Archaeologist
Julie Roy	Field Director

Biological Resources Technical Report

Karl Osmundson	Principal Biologist, QA/QC
Benjamin Rosenbaum	Biology Assistant Project Manager
Sean Bohac	GIS Specialist

Air Quality/Greenhouse Gas Technical Report

Victor Ortiz	Senior Air Quality Specialist
Martin Rolph	Air Quality Specialist
Hunter Stapp	Air Quality Analyst
Joanne Dramko, AICP	Senior Technical Specialist, QA/QC

This page intentionally left blank