Initial Study and Mitigated Negative Declaration
Judson Transmission Main Project

EASTERN MUNICIPAL WATER DISTRICT

March 2022




Woodard & Curran

Initial Study and Mitigated Negative Declaration

Judson Transmission Main Project

Prepared by:

Eastern Municipal Water District
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Acronyms

Acronym	Definition
AB	Assembly Bill
AQMP	Air Quality Management Plan
AWWA	American Water Works Association
Basin Plan	Santa Ana Basin Water Quality Control Plan
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CAP	climate action plan
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CNEL	Community Noise Equivalent Level
CH_4	methane
CO	Carbon monoxide
CO_2e	carbon dioxide equivalent
dB	decibel
dBA	a-weighted decibel
DNL or L_{dn}	day-night average sound level
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EO	Executive Order
EOP	Emergency Operations Plan

Acronym	Definition
EIC	Eastern Information Center
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
US EPA	U.S. Environmental Protection Agency
FEMA	U.S. Department of Homeland Security Federal Emergency Management Agency
FHWA	U.S. Department of Transportation Federal Highway Administration
FTA	U.S. Department of Transportation Federal Transit Administration
FRAP	California Department of Forestry and Fire Protection's Fire and Resource Assessment Program
g	gravity
GHG	greenhouse gas
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
GWP	global warming potential
H_2S	hydrogen sulfide
HCP	Habitat Conservation Plan
IBC	International Building Code
IS	Initial Study
IS/MND	Initial Study/Mitigated Negative Declaration
kHz	kilohertz
Pb	lead
L_{eq}	equivalent sound level
L_{10}	ten-percentile exceeded sound level
LHMP	Local Hazard Mitigation Plan
LOS	level of service
LST	localized significance thresholds

Acronym	Definition
ND	Negative Declaration
N_2O	nitrous oxide
NO_2	nitrogen dioxide
NO_X	Nitrogen oxides
MARB	March Air Reserve Base
mgd	million gallons per day
MND	Mitigated Negative Declaration
MBTA	Migratory Bird Treaty Act
MMRP	Mitigation Monitoring and Reporting Program
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric tons
MWD	Metropolitan Water District of Southern California
NAAQS	National Ambient Air Quality Standards
NHMLA	Natural History Museum of Los Angeles County
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
O&M	operations and maintenance
OHP	Office of Historic Preservation
OPR	Governor's Office of Planning and Research
$PM_{2.5}$	particulate matter with diameters that are generally <2.5 micrometers
PM_{10}	particulate matter with diameters that are generally <10 micrometers
PPV	peak particle velocity
PRC	Public Resources Code
RCFCWCD	Riverside County Flood Control and Water Conservation District
rms	root mean square
RTA	Riverside Transit Agency
RWQCB	Regional Water Quality Control Board

Acronym	Definition
RWRF	regional water reclamation facility
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SGMA	Sustainable Groundwater Management Act
SO_2	sulfur dioxide
SRA	source receptor area
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	Toxic air contaminants
TMDL	total maximum daily load
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibels
VMT	vehicle miles traveled
VHFHSZ	very high fire hazard severity zone
VOC	volatile organic compound
WEAP	Worker Environmental Awareness Program
WRCOG	Western Riverside Council of Governments

1. INTRODUCTION

1.1 Purpose of this Document

Eastern Municipal Water District (EMWD) has prepared this Initial Study (IS) to evaluate the potential environmental impacts related to implementation of the Judson Transmission Main Project (the "proposed Project" or "Project"), which consists of development and operation of potable water transmission facilities.

EMWD is the lead agency under the California Environmental Quality Act (CEQA) for the proposed Project. CEQA requires that the lead agency prepare an IS to determine whether an Environmental Impact Report (EIR), Negative Declaration (ND), or Mitigated Negative Declaration (MND) is needed. EMWD has prepared this IS to evaluate the potential environmental consequences associated with the Judson Transmission Main Project, and to disclose to the public and decision makers the potential environmental effects of the proposed Project. Based on the analysis presented herein, an MND is the appropriate level of environmental documentation for the proposed Project.

1.2 Scope of this Document

This IS/MND has been prepared in accordance with CEQA (as amended) (Public Resources Code Section 21000 et. seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000 et. seq.), as updated on December 28, 2018. CEQA Guidelines Section 15063 describes the requirements for an IS and Sections 15070–15075 describe the process for the preparation of an MND. Where appropriate, this document refers to either the CEQA Statute or State CEQA Guidelines (as amended in December 2018). This IS/MND contains all of the contents required by CEQA, which includes a project description, a description of the environmental setting, potential environmental impacts, mitigation measures for any significant effects, consistency with plans and policies, and names of preparers.

This IS/MND evaluates the potential for environmental impacts to resource areas identified in Appendix G of the State CEQA Guidelines (as amended in December 2018). The environmental resource areas analyzed in this document include:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing

- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

1.3 CEQA Process

In accordance with CEQA Guidelines Section 15073, this Draft IS/MND will be circulated for a 30-day public review period (March 10, 2022 – April 11, 2022) to local and state agencies, and to interested organizations and individuals who may wish to review and comment on the report. EMWD will circulate the Draft IS/MND to the State Clearinghouse for distribution to State agencies. In addition, EMWD will circulate a Notice of Intent to Adopt a Mitigated Negative Declaration to the Riverside County Clerk, responsible agencies, and interested entities. A copy of the Draft IS/MND is available for review at: https://www.emwd.org/emwd-construction-updates.

Written comments can be submitted to EMWD by 5:00 p.m. on April 11, 2022 and addressed to:

Joseph Broadhead, Principal Water Resources Specialist – CEQA/NEPA
Eastern Municipal Water District
2270 Trumble Road
P.O. Box 8300
Perris, CA 92572-8300
broadhej@emwd.org

Following the 30-day public review period, EMWD will evaluate all comments received on the Draft IS/MND and incorporate any substantial evidence that the proposed project could have an impact on the environment into the Final IS/MND and prepare a Mitigation Monitoring and Reporting Program (MMRP).

The IS/MND and MMRP will be considered for adoption by the EMWD Board of Directors in compliance with CEQA at a future publicly noticed hearing, which are held on the 1st and 3rd Wednesday of each month at EMWD's headquarters.

1.4 Impact Terminology

The level of significance for each resource area uses CEQA terminology as specified below:

No Impact. No adverse environmental consequences have been identified for the resource or the consequences are negligible or undetectable.

Less than Significant Impact. Potential adverse environmental consequences have been identified. However, they are not adverse enough to meet the significance threshold criteria for that resource. No mitigation measures are required.

Less than Significant with Mitigation Incorporated. Adverse environmental consequences that have the potential to be significant but can be reduced to less than significant levels through the application of identified mitigation strategies that have not already been incorporated into the proposed project.

Potentially Significant. Adverse environmental consequences that have the potential to be significant according to the threshold criteria identified for the resource, even after mitigation strategies are applied and/or an adverse effect that could be significant and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared to meet the requirements of CEQA.

2. PROJECT DESCRIPTION

2.1 Project Overview

The Judson Transmission Main Project ("Project" or "proposed Project") involves construction and operation of approximately 6,700 linear feet of 18-inch diameter steel or PVC potable water transmission pipeline with interconnections and appurtenances within Perris Boulevard, from the intersection with Robin Lane in the south to the Casey Court Tank Access Road, about 550 feet south of the intersection with Heacock Street, in the north (see Figure 2-2). The proposed Project would connect to existing 18-inch pipelines at Robin Lane and Casey Court Storage Tank access road along with interconnections to the distribution system along the route. Please refer to *Section 2.5 Proposed Project Description* for a detailed description of the Project components.

2.2 Project Purpose

The overall goal of the Project is to improve operational efficiency of EMWD's potable water distribution system between existing Casey Court Storage Tank and North Country Tank in the north and the future Judson Tank in the south by balancing tank levels through increased transmission main capacity. Another purpose of the Project is to improve operational redundancy in EMWD's potable water system, specifically the Moreno Valley 2060 Pressure zone.

2.3 Project Location

The proposed Project is located near the northernmost boundary of the City of Moreno Valley, in the western portion of Riverside County, California (see Figure 2-1). The Project would be constructed entirely within the existing Perris Boulevard right-of-way, bounded by Robin Lane in the south and the access road to Casey Court Storage Tank in the north (see Figure 2-2). The Project is located in Section 30 East, Township 2 South, Range 3 West; Section 32 Northwest, Township 2 South, Range 3 West; and Section 31, Township 2 South, Range 3 West.

2.4 Environmental Setting

The Project area setting is partially built-out. Surrounding land uses include residential, rural residential, open space, and public facilities. The area to the north is largely undeveloped open space/rural residential, while the area to the south is built-out.

2.4.1 Sensitive Receptors

Sensitive receptors within the Project vicinity include the single-family and multi-family residences on either side of the proposed alignment along Perris Boulevard. In addition, the following schools are located within one-quarter mile of the Project site: Sugar Hill Elementary School and North Ridge Elementary School.

2.4.2 Utilities

Electrical service in the proposed Project area is provided by Southern California Edison (SCE). Natural gas service for the entire proposed Project area is provided by the Southern California Gas Company. EMWD provides water and wastewater services in the Project area. Solid waste services are provided by Waste Management of Inland Valley (City of Moreno Valley, n.d.d.). Existing facilities for these utilities are located throughout the vicinity of the proposed Project.

2.4.3 Transportation

The Project site is roughly four miles east of Highway I-215 and one mile north of Highway 60/Moreno Valley Freeway. The major roadways in the proposed Project vicinity are Perris Boulevard, Ironwood Avenue and Heacock Street. Bikeways also exist in the Project vicinity. There is a Class 2 bike lane on both the west and east sides of Perris Boulevard between Manzanita Avenue and Sunnymead Ranch Parkway/Covey Road (City of Moreno Valley 2021a). Active bus routes in the area are operated by Riverside Transit Agency (RTA) and include route 18 along Sunnymead Ranch Parkway, Manzanita Avenue, and Perris Boulevard (RTA 2021).

2.4.4 Airports

The March Air Reserve Base/March Inland Port is located southwest of the city. It is currently active as a center for military reserve activities and as a military communication center. The runways at the base are located along the western edge of the base, over 4.5 miles from the Project site. Other municipal airports in the region are far removed from the Project area; the nearest is the San Bernardino International Airport which is located over eight miles north of the Project area.

2.4.5 Air Quality and Water Quality

The Project is located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), within the South Coast Air Basin (SCAB) which is in nonattainment status for ozone and particulate matter (SCAQMD 2017). The Project site lies within the San Jacinto River watershed, (Santa Ana RWQCB 2015). Water quality is regulated by the

Regional Water Quality Control Board (RWQCB), Santa Ana Region. Drainage facilities in the vicinity of the Project include a detention basin at the intersection of Perris Boulevard and Judson Street.

2.4.6 Geology

The Project area lies in the north-central portion of a formation known as the Perris Block. The Perris Block is a relatively stable structural mass generally bounded by the San Jacinto Fault and the Elsinore Fault to the east and west, and the Chino and Temecula basins to the north and south, respectively. The San Jacinto Fault zone is the closest fault zone, located four miles east of the Project area, and has been known to be active up to present day. Most of the proposed Project alignment is underlain by very old alluvial fan deposits of consolidated silt, sand, gravel, and conglomerate; however, the northern and southern reaches are underlain by young alluvial fan deposits of unconsolidated silt, sand, pebbly cobbly sand, and boulders (Converse Consultants 2021).

2.4.7 Habitat Conservation Plan

The Project area is within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP was developed by Riverside County to aid in maintaining biological and ecological diversity within the region, while addressing requirements of the California Endangered Species Act and Federal Endangered Species Act. The MSHCP defines a reserve system that includes existing and proposed core habitat blocks and habitat linkages to accommodate the needs of wildlife and plant species. The Plan was completed in 2003, and associated permits were issued in 2004. EMWD is not a signatory to the MSHCP. None of the Project features are located within existing or proposed reserve or criteria areas of the MSHCP, although part of the Project is located adjacent to a criteria area in the Reche Canyon Subunit of the Reche Canyon/ Badlands Area Plan.

Figure 2-1: Regional Location

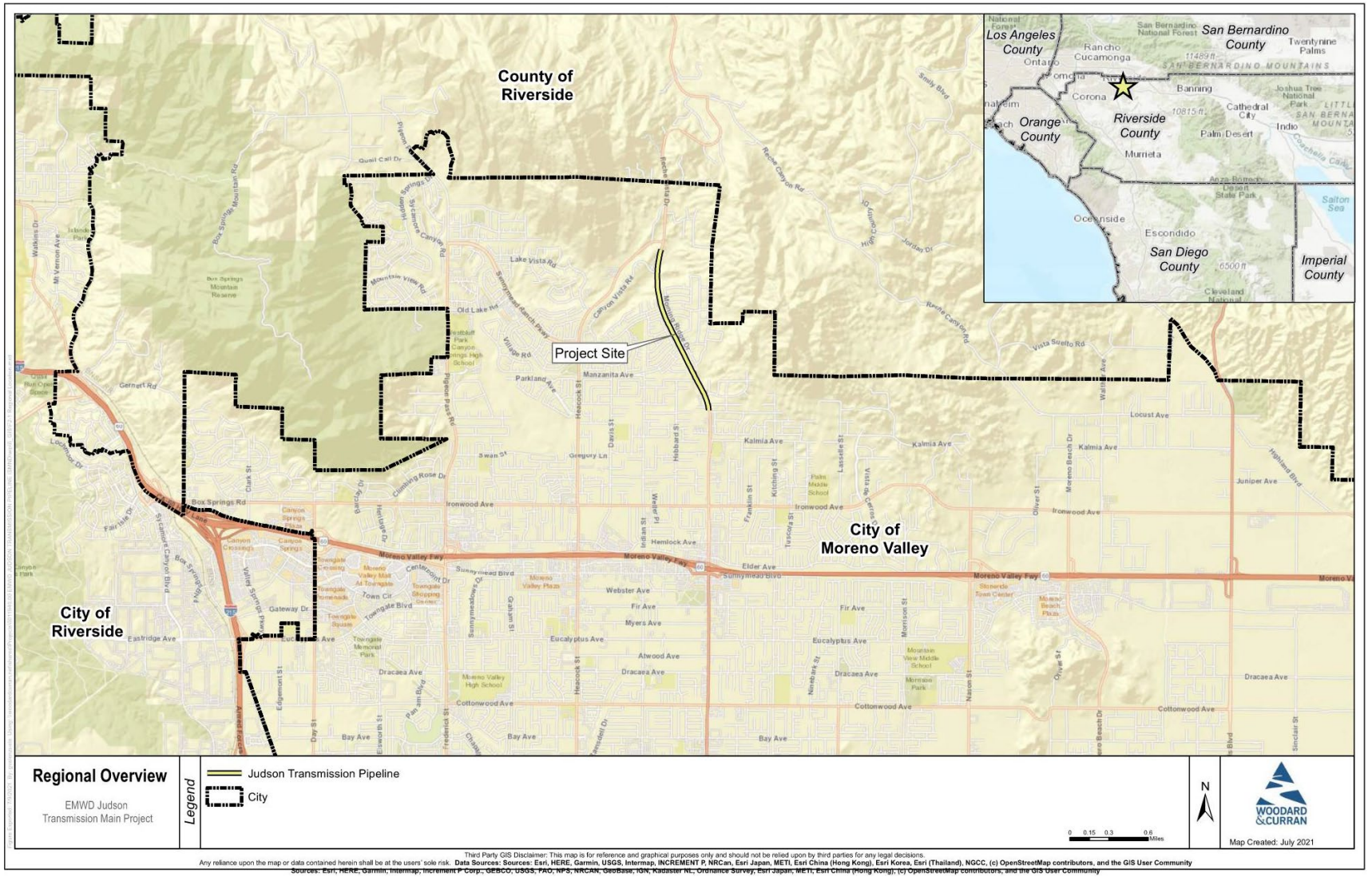
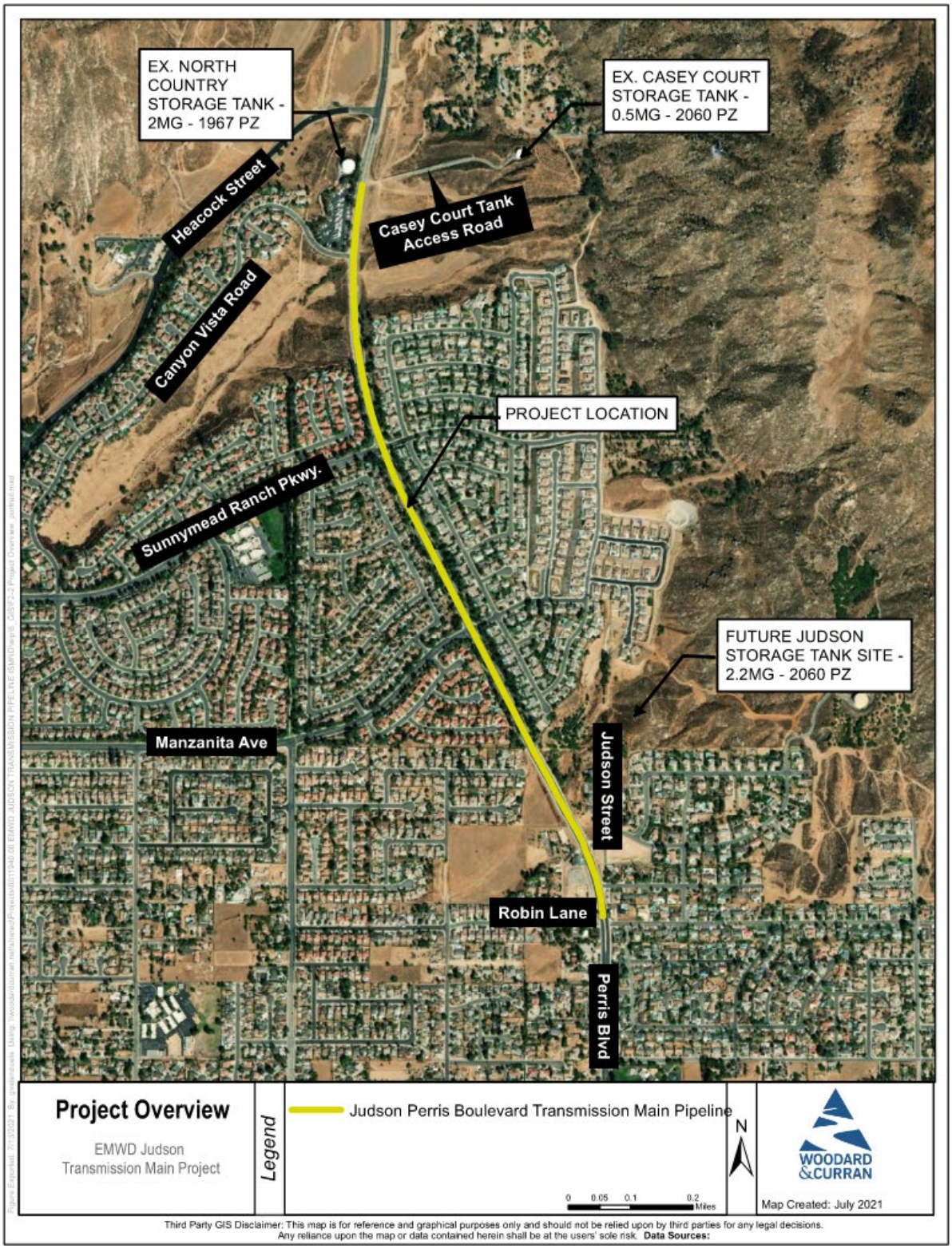


Figure 2-2: Project Overview



2.4.8 Existing Site Conditions

At the northern end of the proposed alignment, Perris Boulevard consists of three lanes of traffic and a turn lane. There is a sidewalk on the west side of Perris Boulevard. The speed limit is 50 mph and streetlights are placed along the entire segment. On the west side of Perris Boulevard, existing land uses consist of the North Country Storage Tank, a recreational vehicle parking lot that was secured with fencing and a locked gate at the time of the site visit in March 2021, an undeveloped valley, and residential land uses. On the east side of Perris Boulevard, the existing land uses are vacant and undeveloped. See Figure 2-3.

In the central segment of the proposed alignment, between Sunnymead Ranch Parkway and Sunday Drive, Perris Boulevard is characterized by sidewalks, mature landscaping, and bicycle lanes defined by pavement striping on both the west and east sides of the roadway. There are four lanes of traffic (two in each direction) and a center dividing/turn lane. The speed limit is 50 mph. The proposed alignment is bordered on either side by single-family residential land uses. Existing noise attenuation features include five-foot masonry walls along the west side of the roadway at the residential property lines, and an embankment on the east side of the roadway that slopes upwards from the road to the houses. See Figure 2-4.

At the southern end of the proposed alignment, Perris Boulevard consists of four lanes of traffic with a central dividing/turn lane and a raised median just north of the intersection with Pico Vista Way. The speed limit is 50 mph. There are sidewalks and bicycle lanes defined by pavement striping on both sides of the roadway. On the west side of the roadway are existing overhead electrical utility lines and streetlights. The surrounding land uses include rural residential and undeveloped land. On the west side of Perris Boulevard, there is a parcel managed by EMWD at the intersection with Robin Lane. See Figure 2-5.

Figure 2-3: Northern portion of proposed alignment – representative photos

Figure 2-4: Central portion of proposed alignment – representative photos

Figure 2-5: Southern portion of proposed alignment – representative photos

2.5 Proposed Project Description

The Project would construct an 18-inch transmission pipeline, three interconnections, and appurtenances to improve EMWD potable water system operational efficiency and redundancy. Details are provided in the following subsections.

2.5.1 Pipeline Construction

The proposed 6,700 linear foot pipeline would be placed within the Perris Boulevard roadway right of way using open-trench construction. The maximum trench width is expected to be 5.5 feet, while the depth is expected to range from 6-10 feet. The pipeline alignment would be designed to avoid conflict with existing utilities. The trenching cross section would resemble a "T" (see Figure 2-6) with the pipeline trench at the center being up to 42 inches wide and 6-10 feet deep, and the City's required paving restoration area being 12 inches wide and 8 inches deep on either side of the trench. The City also requires grind and overlay (see Figure 2-6). The construction contractor would grind and overlay a lane width, or more, depending on the exact location where the alignment sits within the street. The width of resurfacing would be up to the nearest lane line or gutter in accordance with the City of Moreno Valley Trench Backfill and Roadway Repair Standard Plans.

2.5.2 Pipeline Interconnections and Appurtenances

According to the draft Preliminary Design Report and 30% Design Submittal (Dudek 2021), the proposed 18-inch transmission main in Perris Boulevard would connect to the existing 18-inch EMWD water mains at the intersection with Robin Lane in the south and at the Casey Court Tank Access Road in the north. In addition, three interconnections to existing EMWD 12-inch water lines would be constructed along the proposed 18-inch transmission main in Perris Boulevard. The first would be located halfway between Robin Lane and Manzanita Avenue; the second would be located at the intersection with Covey Road/Sunnymead Ranch Parkway; and the third would be located at the intersection with Canyon Vista Road. Interconnections connect new pipelines to existing pipelines with fittings to allow water flow between the existing and new pipelines at these locations. Valves are installed to control flow as desired based on system operations.

The proposed pipeline would be constructed with the following appurtenances. For safety and protection, appurtenances would be located a practicable distance from traffic lanes.

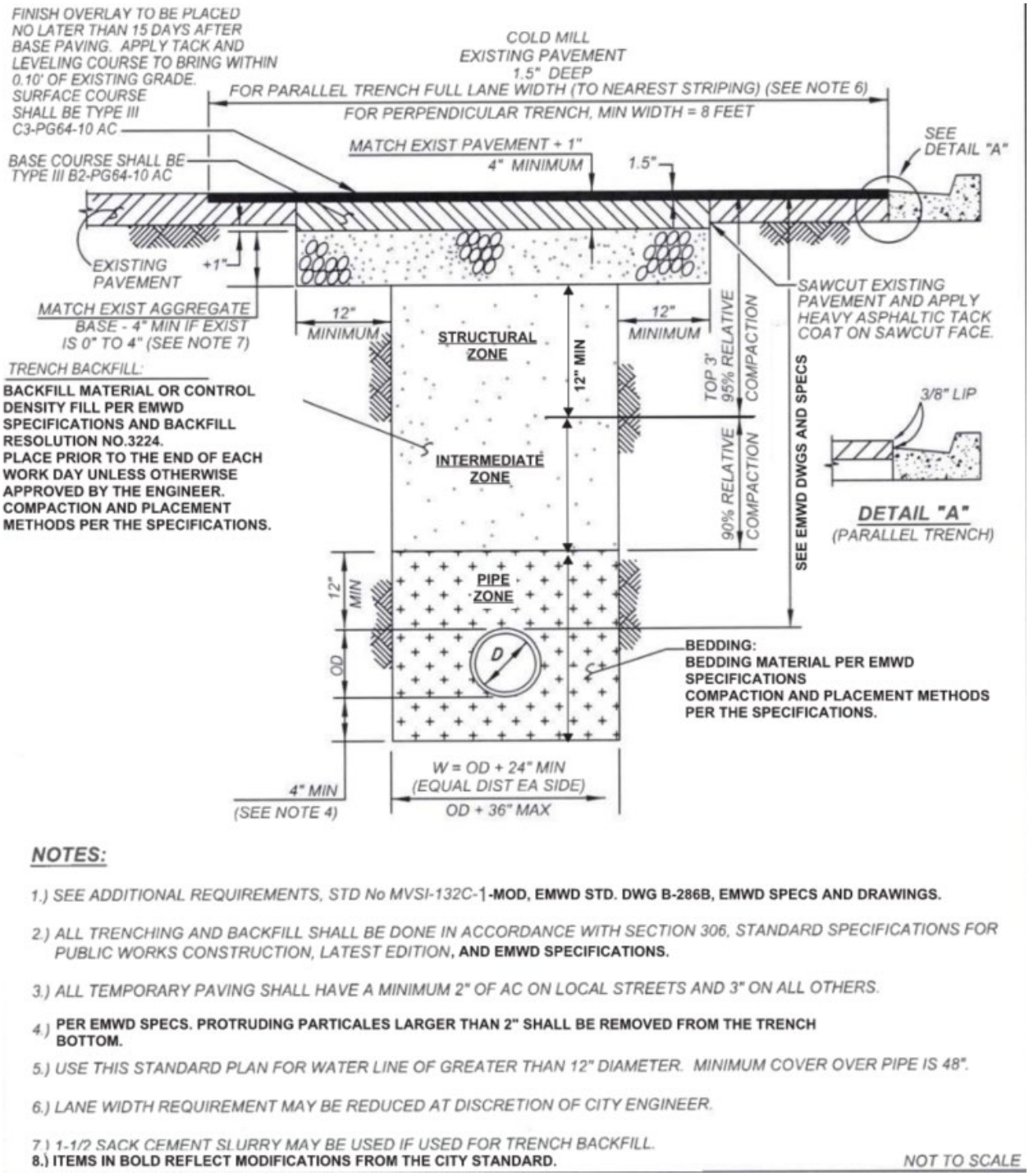
- Valves. Isolation valves would be placed below-ground within the paved roadway, at a minimum every 2,500 feet along the transmission pipeline. They would be located at all branches and intersections of the main pipeline. Isolation valves are

anticipated to be located within Perris Boulevard at the southern and northern ends of the proposed 18-inch transmission main (i.e., at Robin Lane and about 550 feet south of the intersection with Heacock Street), at Judson Street, as well as at the three interconnections. The isolation valves would be fitted with a riser and removable valve cover, flush with the paved road for maintenance access.

- Air release and vacuum valve assemblies. Combination air release and vacuum valve assemblies would be fitted to high points of transmission main segments and at the upgradient side of each valve. Air release and vacuum valve assemblies are anticipated to be located along Perris Boulevard approximately 550 feet south of Manzanita Avenue, and approximately 520 feet north of Covey Road/Sunnymead Ranch Parkway. The above grade portion of the facilities would be enclosed in 18-inch-wide by 30-inch-tall valve enclosures painted and labeled to match the existing air release and vacuum valve assemblies, and would be located approximately 20 feet east of the edge of the Perris Boulevard pavement in the existing landscaped area adjacent to the off-street sidewalk shown in Figure 2-4.

- Blowoff assemblies and/or fire hydrants. Six-inch blowoff assemblies would be located at the end of proposed pipelines that would not be extended in the future where no fire hydrant exists, and/or would be located between valves where no fire hydrant exists. The precise location and number of blowoff assemblies and hydrants would be determined in final design. Standard EMWD blowoff assemblies include an above-ground blow-off head, cap with chain ring, pipe, and flange that totals 26 inches above grade and is painted approved yellow. Standard EMWD fire hydrants include an above-ground fire hydrant, cap with chain ring, and flange that totals 30 inches above grade and is painted an approved color that corresponds to its capacity (blue, green, orange, or red). Standard EMWD blowoff assemblies and/or fire hydrants are placed at a distance of 1.5 feet to 7.5 feet from the curb, depending on the size of the existing sidewalk.

Figure 2-6: Proposed Alignment Representative Cross-Section



Source: City of Moreno Valley, Water Line (larger than 12" diameter) Trench Backfill and Roadway Repair – Modified MVSI-132F-1, December 3, 1984.

Construction of the pipelines would require the estimated construction equipment shown in Table 2-1.

Table 2-1: Construction Vehicle Fleet for Pipelines

Equipment	Number Required for Pipelines
Backhoe/Loader	1
Hydraulic Excavator	1
Crane	1
Utility Truck	1
Water Truck	1
Welder	1
Compressor	1
Pump	1
Pick-up Trucks	2
Dump Truck	2
Concrete Saw	1
Pavement Breaker	1
Sweeper	1
Paver	1
Generator	1

The total estimated volume of material to be excavated from construction of the pipeline is approximately 9,000 cubic yards (42-inch pipeline trench width x 10 feet pipeline trench depth x 6,700 feet long + 12 inch paving restoration area width x 8 inch paving restoration area depth x 6,700 feet long x 2 paving restoration areas on either side of trench). Excavated material may be reused onsite as trench backfill; however, this would not be determined until excavation starts. Therefore, it is conservatively assumed that all of the material would be hauled offsite for disposal. After construction is complete, all pipeline construction areas would be restored to pre-construction conditions (i.e., no permanent disturbance footprint). The width of resurfacing would be up to the nearest lane line or gutter in accordance with the City of Moreno Valley Trench Backfill and Roadway Repair Standard Plans.

2.5.3 Construction Schedule

Project construction is anticipated to begin in approximately December 2022 and continue until December 2023. Construction would include the following six phases:

- Mobilization/utility potholing – December 2022 to February 2023
- Trenching/Pipeline installation – March 2023 to July 2023. The pipelines would be constructed at an average rate of 100 linear feet per day, depending on the conditions, extent of existing utilities and traffic control, and permitted work hours. Therefore, the total duration of construction for the pipelines is estimated to last approximately four months.
- Appurtenance installation – August 2023
- Testing/chlorination and tie ins – September 2023
- Final paving/restoration – October 2023
- Demobilization – November/December 2023

Construction would take place Monday through Friday during daytime hours in accordance with the City of Moreno Valley Municipal Code. No construction activities are planned during nighttime hours (7:00 p.m. to 7:00 a.m.) or on weekends.

2.5.4 Equipment Staging Areas

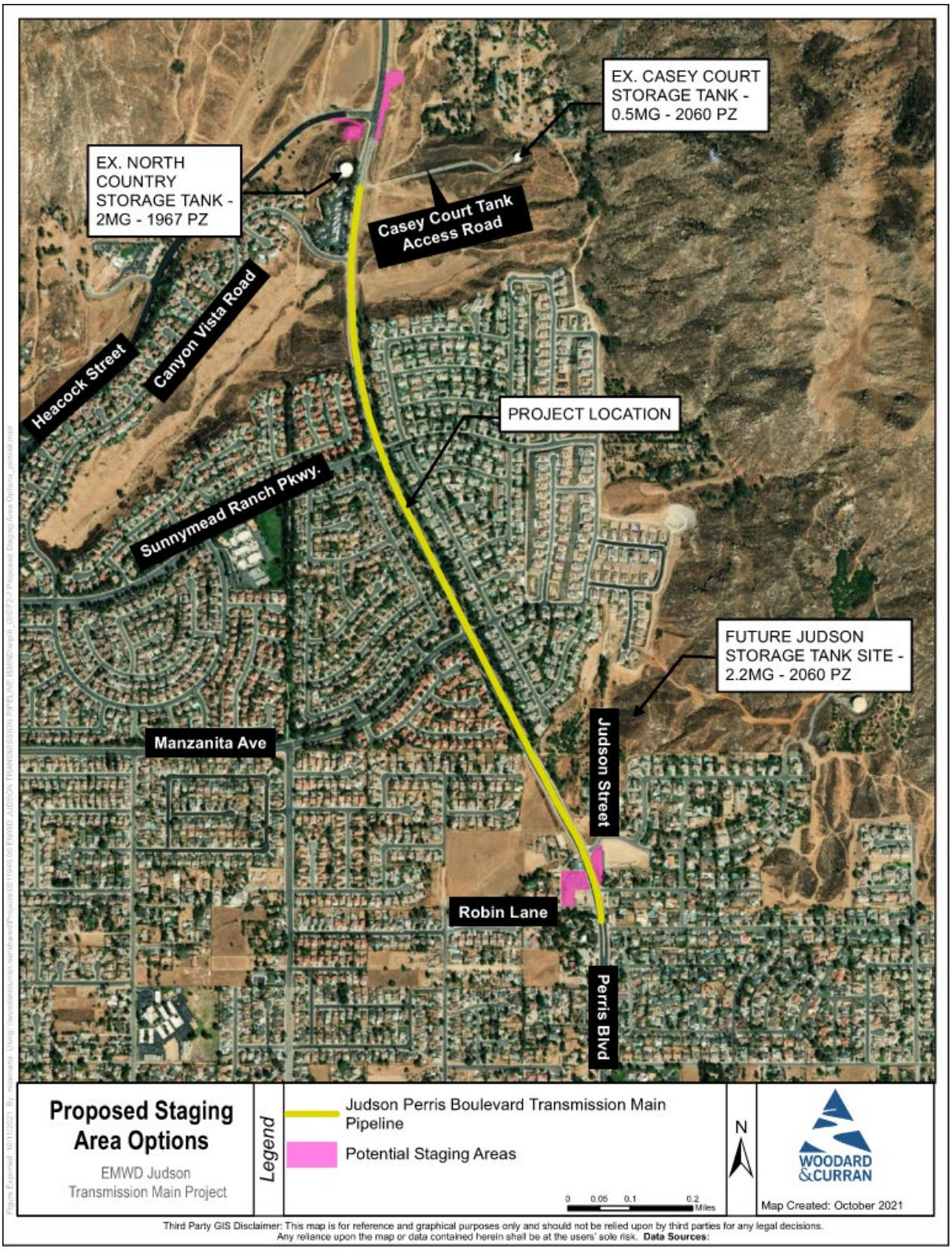
Four construction staging area options are included in this environmental analysis; however, the size, location, and number of staging areas would be finalized at a later Project stage. For the purposes of this analysis, it was assumed each construction staging area would be up to 200 by 200 feet in size and located in vacant land with access to the proposed alignment. The four option locations for the staging areas are shown in Figure 2-7. Access would be from Perris Boulevard or, in the case of the area on the southwest corner of Perris Boulevard and Heacock Street, from Heacock Street. A temporary access roadway would be installed with a layer of crushed rock from Perris Boulevard and/or Heacock Street to the laydown area, as needed. The optional staging area sites, from north to south, are 1 acre, 0.5 acre, 0.5 acre, and 1.1 acres in size.

If the identified staging area options cannot accommodate all equipment storage/staging for the proposed Project, the construction contractor may use the Perris Boulevard right-of-way for the purposes of equipment storage, staging, and/or pipe stringing. Other existing EMWD property would be utilized as necessary for staging and intermediate storage for the installation of the water pipelines, or the contractor would be responsible for securing suitable temporary equipment storage/staging site(s) prior to construction and implementing applicable environmental commitments (see *Section 2.7*) at the staging area(s).

2.6 Operations

The pipeline and appurtenances would not be associated with long-term energy usage or additional EMWD operations and maintenance (O&M) activities. Project O&M activities would include inspection and repair, as necessary, of air vacuum valves, blowoff valves, and fire hydrants; valve exercising; and possible flushing and sampling of water quality. Inspection of the above ground appurtenances and exercise of the valves would be incorporated into EMWD's existing O&M activities.

Figure 2-7: Proposed Staging Area Options



2.7 Environmental Commitments

The following measures are EMWD construction best management practices (BMPs) that would be implemented as part of the Project:

- The design and construction of the facilities would be based on the geotechnical investigation report (Appendix D: Converse Consultants 2021) to minimize geological risk.
- According to the geotechnical investigation report (Appendix D: Converse Consultants 2021), high groundwater levels along the pipeline alignment are anticipated to be deeper than 16.5 feet below the existing ground surface. However, if groundwater is encountered during construction, it would be discharged to EMWD's sanitary sewer instead of the storm drains for treatment and reuse and to minimize chlorination of the potable water.
- All construction work within public roadways would require the contractor to prepare and implement a Traffic Control Plan to be reviewed and approved by the City of Moreno Valley before issuance of the encroachment permit. See **Mitigation Measure TRA-1**.
- All construction work would require the contractor to implement fire hazard reduction measures, such as having fire extinguishers located onsite, use of spark arrestors on equipment and using a spotter during welding activities.
- Open trenches shall be covered with recessed trench plates during non-construction periods in accordance with encroachment permits.
- Construction would comply with SCAQMD Rule 403 Fugitive Dust Control requirements.
- Specifications would require the contractor to prepare a Stormwater Pollution Prevention Plan (SWPPP). Construction would implement BMPs to control water quality of stormwater discharges offsite, according to the SWPPP, such as site management "housekeeping," erosion control, sediment control, tracking control and wind erosion control.
- Specifications would require the contractor to implement standard fire prevention measures. EMWD Specifications Detailed Provisions Section 02201 – Construction Methods & Earthwork of the Standard Detailed Provisions (EMWD 2015) include the entire work and site, including storage areas, is inspected at frequent intervals to verify that fire prevention measures are constantly enforced; fully charged fire extinguishers of the appropriate type, supplemented with temporary fire hoses wherever an adequate water supply exists, are furnished and maintained; and

flammable materials are stored in a manner that prevents spontaneous combustion or dispersion.

2.8 Required Permits and Approvals

Anticipated permits are identified in Table 2-2. A California State Water Resources Control Board Division of Drinking Water Waiver is not anticipated because the proposed Project's pipelines would be compliant with California's Waterworks Standards (Section 64572, Title 22, CCR) parallel and perpendicular separation criteria; however, the need to apply for a waiver would be determined later in the design stage.

Table 2-2: Permits and Approvals

Agency	Permit/Approval
City of Moreno Valley	Encroachment Permit
South Coast Air Quality Management District	Dust Control Permits
Riverside County Flood Control and Water Conservation District	Encroachment Permit
State Water Resources Control Board	NPDES Construction General Permit for Storm Water Discharges
California Occupational Safety and Health Administration	Trenching/Shoring Permit

3. ENVIRONMENTAL CHECKLIST FORM

1. **Project title:** Judson Transmission Main Project

2. **Lead agency name and address:** Eastern Municipal Water District
   2270 Trumble Road
   P.O. Box 8300
   Perris, CA 92572-8300

3. **Contact person and phone number:** Joseph Broadhead,
   Principal Water Resources Specialist
   broadhej@emwd
   (951) 928-3777 ext. 4545

4. **Project location:** City of Moreno Valley,
   Riverside County, California

5. **Project sponsor's name and address:** Same as Lead Agency

6. **General plan designations:** Perris Boulevard roadway right-of-way, Residential, Rural Residential

7. **Zoning:** Perris Boulevard roadway right-of-way, Residential Agriculture 2 DU/AC, Residential 2 DU/AC, Suburban Residential, Large Lot Residential; Open Space/Park

8. **Description of project:** The Judson Transmission Main Project involves construction and operation of approximately 6,700 linear feet of 18-inch diameter steel or PVC potable water transmission pipeline with interconnections and appurtenances within Perris Boulevard, from the intersection with Robin Lane in the south to the Casey Court Tank Access Road, about 550 feet south of the intersection with Heacock Street, in the north. The Project would connect to existing 18-inch pipelines at Robin Lane and Casey Court Storage Tank access road along with interconnections to the distribution system along the route. The Project would improve operational efficiency of EMWD's potable water distribution system between existing Casey Court Storage Tank and North Country Tank in the north and the future Judson Tank in the south by balancing tank levels through increased transmission main capacity. Another purpose of the Project is to improve operational redundancy in EMWD's potable water system, specifically the Moreno Valley 2060 Pressure zone.

9. **Surrounding land uses and setting:** The Project would be constructed entirely within the existing Perris Boulevard right-of-way. The Project area setting is partially built-out. Surrounding land uses include residential, rural residential, open space, and public facilities. The area to the north is largely undeveloped open space/rural residential, while the area to the south is built-out.

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

    - City of Moreno Valley: Encroachment Permit
    - Riverside County Flood Control and Water Conservation District: Encroachment Permit
    - State Water Resources Control Board: NPDES Construction General Permit for Storm Water Discharges
    - California Occupational Safety and Health Administration: Trenching/Shoring Permit
    - South Coast Air Quality Management District: Dust Control Permits

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

    EMWD has consulted with Native American tribal representatives through written correspondence, based on a contact list of tribes who indicated to EMWD that they are interested in receiving notification. Additionally, EMWD staff has undertaken consultation with representatives from the Pechanga Band of Luiseño Indians, Soboba Band of Luiseño Indians, and Rincon Band of Luiseño Indians to discuss the Project and potential effects no significant cultural resources.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

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

Al Javier Digitally signed by Al Javier Date: 2022.03.08 15:35:42 -08'00'

Signature

March 7, 2022

Date

Alfred Javier

Printed Name

Director of Env. & Regulatory Compliance

Title

3.1 Aesthetics

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

Discussion

The City of Moreno Valley occupies a flat valley floor that is surrounded by mountains and hills. The primary scenic views, as defined by the City of Moreno Valley and County of Riverside, near the Project area are the foothills and mountains located around the northern, eastern, and southern edges of Moreno Valley, including the Box Spring Mountains 1.8 miles east, the Reche Canyon/Badlands foothills immediately adjacent in the east, and the mountains of Lake Perris State Recreation Area 6.6 miles south (City of Moreno Valley 2021a; County of Riverside 2020). In its General Plan, the City of Moreno Valley describes the importance of maintaining a natural setting in rural and remotes areas, including the hills and mountains that surround the city, to preserve the scenic quality of the region (City of Moreno Valley, 2021a).

As shown in the photographs of the existing conditions of the site (*Section 2-6 Existing Site Conditions*), the new potable water transmission main would be constructed along Perris Boulevard, which supports intermittent views of surrounding mountains and hills for motorists and pedestrians (Figure 2-3, Figure 2-4, and Figure 2-5).

The City of Moreno Valley prioritizes preserving the scenic quality of the region. The City of Moreno Valley Municipal Code contains guidelines for aesthetic quality and visual character. Municipal Code Section 9.16.280 provides guidelines for proposed lighting with the purpose of reducing unnecessary light pollution and maintaining dark skies, while promoting safety and aesthetics. This section of the Municipal Code states that light and glare should not be unnecessarily deflected onto surrounding properties; high-intensity security lighting fixtures should be concealed by landscaping or building architectural elements; and lighting fixtures placed lower than five feet in height should not produce glare.

Riverside County Ordinance Number 655 regulates light pollution by restricting the permitted use of certain outdoor light fixtures that emit light into the night sky which have a detrimental effect on astronomical observation and research. It defines various zones relative to the distance between the light source and Palomar Observatory and sets requirements for shielding for various types of outdoor lighting (e.g., decorative, parking lots, walkways, security) (County of Riverside 1988).

The State of California Department of Transportation (Caltrans) manages the State Scenic Highway Program which was created by the State Legislature in 1963 with the purpose of protecting the natural scenic beauty of California highways. State-designated scenic highways have locally adopted policies to preserve the scenic quality of the corridor. Highways receive designation based on how much of the natural landscape can be seen

by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. The nearest State-designated scenic highway is State Route 243, approximately 20 miles east of the Project area (Caltrans 2021). There are no state-designated or eligible scenic highways within the City of Moreno Valley (City of Moreno Valley, 2021b).

a) Less than Significant Impact

The primary scenic impairments associated with the Project would be temporary and would occur during the construction phase. During construction, scenic views of surrounding hills and mountains near the Project site would be temporarily altered by the construction equipment such as cranes and excavators. Once the Project is completed, pipelines would be underground, the area of temporary disturbance would be restored to its original condition and would not obstruct any long-term views. The permanent, above-ground structures, including 30-inch-tall air release and vacuum valve enclosures, 26-inch-tall blowoff valve assemblies, and 30-inch-tall hydrants would be painted and labeled standard EMWD colors to match the existing appurtenances in the Project vicinity and would not block views. Thus, the Project would have no long-term impact on scenic vistas. Impacts would be less than significant.

b) No Impact

The proposed alignment is not located within the viewshed of a State scenic highway. Therefore, there would be no impact on scenic resources associated with a State scenic highway.

c) Less than Significant Impact

The proposed alignment of the Project is located within the existing Perris Boulevard right-of-way. Project implementation may result in short-term impacts regarding the visual character or quality of the Project Area as a result of disturbed roadways, excavation, trenching, placement of materials and staging of equipment. Public views in the Project area and vicinity include those from roadways, sidewalks and bicycle lanes. Public views of the Project construction from roadways would be fleeting – on the order of seconds or minutes – while public views of the construction from sidewalks and bicycle lanes would be longer. This short-term effect on visual continuity is considered less than significant because after construction the alignment would be returned to existing conditions or otherwise improved. The above-ground structures, including 30-inch-tall air release and vacuum valve enclosures, 26-inch-tall blowoff valve assemblies, and 30-inch-tall hydrants would be painted and labeled standard EMWD colors to match the existing visual character of appurtenances in the Project vicinity; the impact on visual quality would be

minimal. The transmission main would not permanently impact the existing visual character or quality of the site and its surroundings. Project impacts on visual character and public views would be less than significant.

d) Less than Significant Impact

Construction would take place during daytime hours in accordance with the City of Moreno Valley Municipal Code. No construction activities are planned during nighttime hours (7:00 p.m. to 7:00 a.m.). Daytime construction would temporarily create a minor new source of light and glare from construction equipment. Impacts are considered less than significant because construction would be temporary and equipment would be removed once site restoration is complete. Once construction is complete, no permanent lights or sources of glare would be installed as part of the Project. Existing streetlights are provided along the entire proposed alignment on Perris Boulevard. The Project would not create additional light in the Project area; there would be no long-term impact to daytime and nighttime views in the area.

Mitigation Measures: None required or recommended.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	[ ]	[ ]	[ ]	[X]

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	[ ]	[ ]	[ ]	[X]
c) Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	[ ]	[ ]	[ ]	[X]
d) Result in the loss of forest land or conversion of forest land to non-forest use?	[ ]	[ ]	[ ]	[X]
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	[ ]	[ ]	[ ]	[X]

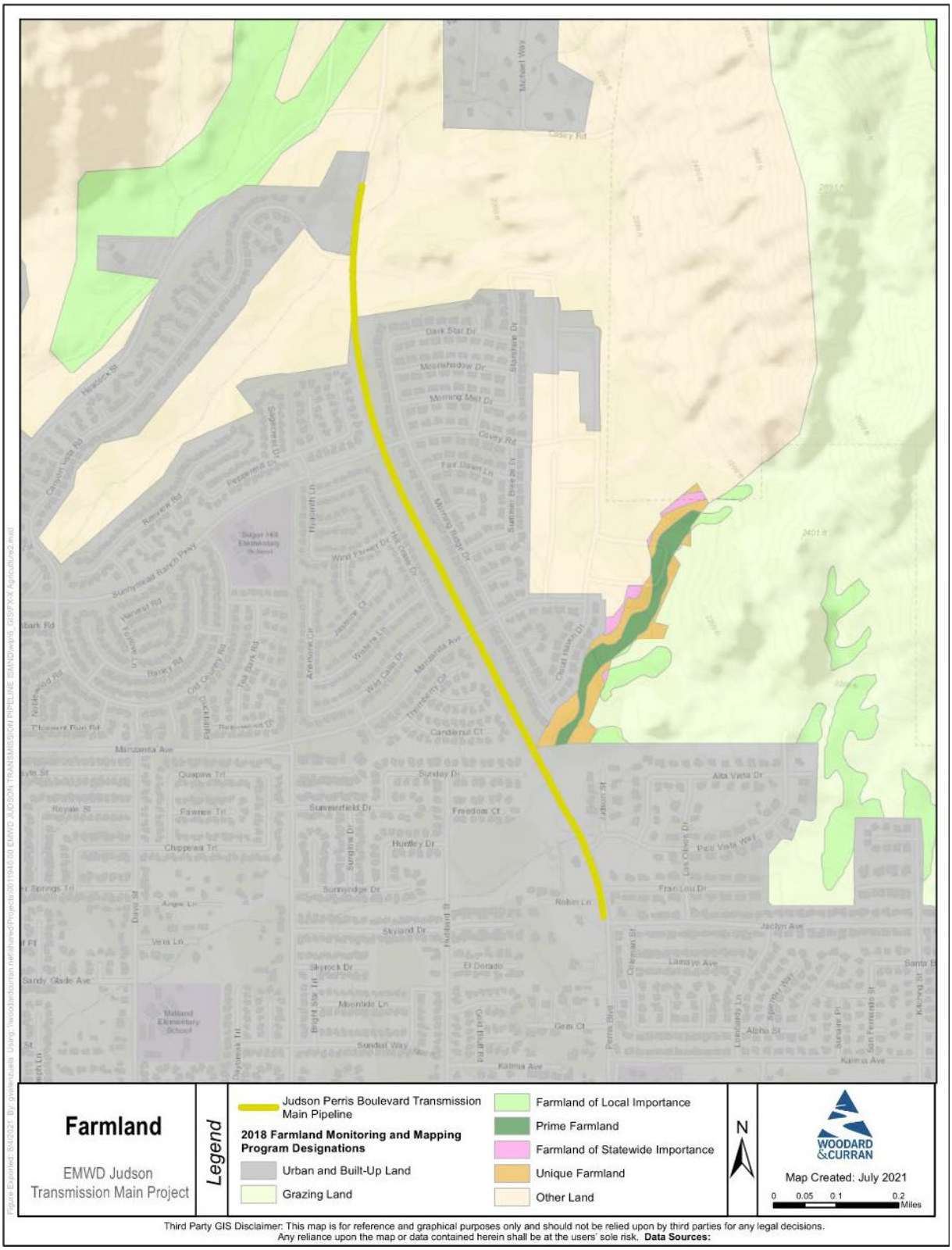
Discussion

The proposed project would be located solely on disturbed lands (paved roadway, vacant disturbed parcels, and the EMWD-owned site on Robin Lane with existing water supply facilities). The City of Moreno Valley does not have any zoning designations exclusive for agricultural use. In addition, there are no Williamson Act contracts, or zoning classifications for forestland, timberland, or timberland production (City of Moreno Valley 2021b). As shown in Figure 3-1 there is a small portion of Unique Farmland adjacent of the proposed alignment between Cloud Heaven Drive and the northern terminus of Judson Street as classified by the California Department of Conservation (CDOC) Farmland Mapping and Monitoring Program (CDOC 2018).

a) No Impact

The proposed alignment along Perris Boulevard would be adjacent to land classified as Unique Farmland; however, the pipeline would be located entirely within the existing roadway right-of-way and would avoid this land. No Project construction staging areas are proposed within the farmland area. Although the land classified as Unique Farmland is adjacent to the Project area and under production, this land would not be directly impacted by Project construction. The proposed Project would not convert farmland to non-agricultural use; therefore, there would be no impact.

Figure 3-1: Farmland



b) No Impact

The proposed Project would not be located on land zoned for agricultural use or protected by a Williamson Act Contract (City of Moreno Valley 2021b). Therefore, no impact would occur as a result of the proposed Project.

c) No Impact

There is no land zoned or designated for forest land or timberland within the City of Moreno Valley (City of Moreno Valley 2020b). Therefore, the proposed Project would have no impact.

d) No Impact

There is no designated forest land or timberland within the City of Moreno Valley. There are no forestry or timberland resources at the Project site. Therefore, the proposed Project would have no impact related to the loss of forest land or timberland.

e) No Impact

The proposed Project would improve operational redundancy in EMWD's potable water system and improve operational efficiency between existing Casey Tank and North Country Tank in the north and the future Judson Tank in the south, by balancing tank levels through increased transmission main capacity. The proposed Project would accommodate existing anticipated potable water demand within the EMWD service area. The Project would not substantially decrease groundwater supplies or impede the ability of farmers to pump groundwater for irrigation use if needed because the Project would not directly result in an increase in groundwater use in the area. The Project would not induce other changes in the environment that would result in conversion of agricultural land to non-agricultural use. The proposed Project would have no impact toward conversion of farmland or forest land to non-agricultural or non-forest use.

Mitigation Measures: None required or recommended.

3.3 Air Quality

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

Discussion

The City of Moreno Valley and EMWD service area are within Riverside County and bounded by the City of Riverside to the west, the City of Perris to the south, and unincorporated Riverside County on the remaining boundaries. The Project area is located within the SCAB, which is regulated by the SCAQMD. The SCAQMD monitors air pollutant levels to ensure the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are met and, if they are not met, to develop strategies to meet the standards. Air pollution in the Project area is monitored at stations in Perris, Redlands, and Banning, located approximately nine, ten, and 19, miles from the Project area, respectively.

The NAAQS, which are required to be set by the United States Environmental Protection Agency (US EPA) under the Clean Air Act, provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly (US EPA 2021). Similarly, the CAAQS are established to protect the health of the most sensitive groups and are mandated by State law. EPA has set NAAQS for six pollutants, which are called "criteria pollutants:" carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), Particulate Matter (PM_{10} and $PM_{2.5}$), and sulfur dioxide (SO_2). In addition to these, California has added three criteria pollutants: hydrogen sulfide (H_2S), visibility reducing particles, and vinyl chloride. In total, California regulates about 200 different chemicals, referred to as toxic air contaminants (TACs) (CARB 2021).

Depending on whether or not the NAAQS or CAAQS are met or exceeded, the SCAB is classified as being in "attainment" or "nonattainment." The 2016 Air Quality Management Plan (AQMP; SCAQMD 2017) assesses the attainment status of the SCAB and is summarized in Table 3-1. As shown therein, the SCAB is in nonattainment for the State 1-Hour Ozone, 8-Hour Ozone, PM_{10}-24 hour, PM_{10}-Annual, and $PM_{2.5}$-Annual requirements and the Federal 1-hour Ozone, 8-Hour Ozone, $PM_{2.5}$-24 hour, $PM_{2.5}$-Annual, and lead requirements. Thus, the SCAB is required to implement strategies that would reduce pollutant levels to recognized standards, which is done through the Clean Communities Plan (formerly known as the Air Toxics Control Plan). The Clean Communities Plan is designed to examine the overall direction of the SCAQMD's air toxics control program and includes control strategies aimed to reduce toxic emissions.

Table 3-1: Criteria Pollutant Attainment Status – SCAB

Criteria Pollutant	State CAAQS	Federal (NAAQS)
1-Hour Ozone	Nonattainment	Nonattainment (Extreme)
8-Hour Ozone	Nonattainment	Nonattainment (Extreme)
CO	Attainment	Attainment (Maintenance)
NO_2	Attainment	Attainment (Maintenance)
SO_2	Attainment	Attainment
PM_{10} – 24 hour	Nonattainment	Attainment (Maintenance)
PM_{10} – Annual	Nonattainment	No Criteria Defined
$PM_{2.5}$ – 24 hour	No Criteria Defined	Nonattainment (Serious)
$PM_{2.5}$ - Annual	Nonattainment	Nonattainment (Serious)
Lead	No Criteria Defined	Nonattainment (partial)
Hydrogen Sulfide (H_2S)	Attainment	No Criteria Defined
Sulfates	Attainment	No Criteria Defined
Vinyl Chloride	Attainment	No Criteria Defined

Source: SCAQMD 2018

The SCAQMD provides numerical thresholds to analyze the significance of a project's construction and operational emissions on regional air quality. These thresholds are designed such that a project consistent with the thresholds would not have an individually or cumulatively significant impact on the SCAB's air quality. These thresholds are listed in Table 3-2.

Table 3-2: SCAQMD Air Quality Significance Thresholds

Pollutant	Mass Thresholds – Construction Thresholds (pounds/day)	Mass Thresholds – Operation Thresholds (pounds/day)
NO_x	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_x	150	150
CO	550	550
Lead	3	3
Toxic Air Contaminants	• Maximum Incremental Cancer Risk $\geq$ 10 in 1 million • Cancer Burden > 0.5 excess cancer cases (in areas $\geq$ 1 in 1 million) • Chronic & Acute Hazard Index $\geq$ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	

Source: SCAQMD 2019

In addition, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs have been developed for nitrogen oxides (NO_X), CO, PM_{10} and $PM_{2.5}$. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or State ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area, distance to the sensitive receptor, and project size. LSTs only apply to emissions within a fixed stationary location; they are not applicable to mobile sources. The use of LSTs is voluntary, to be implemented at the discretion of local agencies (SCAQMD 2008a).

The SCAQMD LSTs are defined for 37 source receptor areas (SRAs). The Project site is located in source receptor area 24 (SRA-24), Moreno Valley (SCAQMD 2008a). LSTs have been developed for emissions within construction areas up to five acres in size. The SCAQMD provides lookup tables for sites that measure up to one, two, or five acres. The proposed Project is limited to pipeline and appurtenance construction, which would proceed at a rate of approximately 100 linear feet of pipeline per day, which is equivalent to an active construction site less than one-tenth (0.1) of an acre per day. Pursuant to

SCAQMD guidance, LSTs for the one-acre site should be used for sites that are less than one acre in size. Ground disturbance for the pipelines may exceed the estimated rate of 0.1 acre per day occasionally; however, the area under active construction at any given time for the pipeline would not be expected to exceed the one-acre limit set in the LST lookup table. LSTs for construction on one-acre and five-acre sites in SRA-24 are shown in Table 3-3. LSTs are provided for receptors at a distance of 25 meters (82 feet) from the Project site boundary, which is the most conservative LST distance (LSTs range from 25 to 500 meters).

Table 3-3: SCAQMD LSTs for Construction and Operation

Pollutant	Allowable emission from a one-acre site in SRA-24 for a receptor within 25 meters, or 82 feet (pounds/day)	Allowable emission from a five-acre site in SRA-24 for a receptor within 25 meters, or 82 feet (pounds/day)
Gradual Conversion of NO_x to NO_2	118	270
CO	602	1,577
PM_{10} – operation	1	4
PM_{10} – construction	4	13
$PM_{2.5}$ – operation	1	2
$PM_{2.5}$ – construction	3	8

Source: SCAQMD 2009

a) Less than Significant Impact

The SCAQMD's 2016 AQMP is the applicable air quality plan for this IS/MND. The AQMP assesses the attainment status of the Moreno Valley and the EMWD area of the SCAB and provides a strategy for attainment of State and federal air quality standards. The AQMP strategies are developed based on population, housing, and employment growth forecasts anticipated under local city general plans and the SCAG's 2016 Regional Transportation Plan/Sustainable Communities Strategy.[1]

A project would conflict with or obstruct an applicable air quality plan if it would lead to population, housing or employment growth that exceeds the forecasts used in the

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

development of the applicable air quality plan. The proposed Project would construct approximately 6,700 linear feet of pipeline and appurtenances to improve operational efficiency and redundancy of the potable water distribution system. The proposed Project would improve operational benefit and flexibility to accommodate existing and planned anticipated potable water demand within the EMWD service area. Therefore, the proposed Project would not lead to unplanned population, housing or employment growth that exceeds the forecasts used in the development of the AQMP. Potential for conflicts with the AQMP would be less than significant.

b) Less than Significant Impact

The proposed Project would result in emissions of criteria pollutants from short-term construction activities. The pipeline and appurtenances would not be associated with long-term energy usage or additional EMWD O&M activities. Inspection of the pipeline, above ground appurtenances and exercise of the valves would be incorporated into EMWD's existing O&M activities. Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) 2016.3.2, which was developed by the SCAQMD and is used throughout California to quantify criteria pollutants and greenhouse gas emissions (GHGs).

The CalEEMod emissions scenarios were based on Project-specific information, found in *Section 2 Project Description*. In instances where Project-specific information was not available (e.g., construction equipment horsepower, length of worker trips, soil moisture content), the analysis relied on CalEEMod default values for construction activities. As explained in *Section 2 Project Description*, it is assumed that construction would begin in December 2022 and have a duration of 12 months. SCAQMD's Rule 403 (Fugitive Dust) requires construction projects to implement measures to suppress fugitive dust emissions, such as watering of exposed soils and the preparation of a Fugitive Dust Control Plan. The construction contractor would be required to have a Fugitive Dust Control Plan approved by either the SCAQMD or Riverside County prior to grading or excavation activities.

Construction Emissions

Air emissions of criteria pollutants during construction would result from the use of construction equipment with internal combustion engines, and offsite vehicles to transport workers, deliver materials to the site, and haul import and export material to and from the site. Project construction would also result in fugitive dust emissions, which would be lessened through the implementation of the fugitive dust control measures required by SCAQMD rules. Table 3-4 summarizes the maximum daily pollutant emissions

during construction of the proposed Project. As shown in Table 3-4, Project construction would not exceed SCAQMD regional thresholds for any criteria pollutant.

Table 3-4: Proposed Project Maximum Daily Construction Emissions Compared to Regional Thresholds (pounds/day)

Emissions Source	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
On-site construction equipment	4.2	33	38	<1	1.5	1.4
Mobile sources	0.3	4	3	<1	<1	<1
Fugitive dust (with required fugitive dust controls)	--	--	--	--	1.0	0.3
Total Maximum Daily Emissions	**4.5**	**37**	**41**	**<1**	**2.5**	**1.7**
SCAQMD Regional Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Note: In CalEEMod, environmental commitments, including measures to control fugitive dust, must be input as "mitigation measures." Therefore, these results reflect the mitigated scenario in the output tables in Appendix A.

Additionally, while the use of LSTs is voluntary, the proposed Project emissions were compared to LSTs for the Project area and are provided in Table 3-5. As noted above, LSTs are only applicable to emissions within a fixed, stationary location, such as construction sites, and vary based on project site size. Table 3-5 provides LSTs that are applicable to the onsite construction activities, including pipeline trenching, installation of pipeline and appurtenances, and roadway resurfacing. As explained under the discussion above, SCAQMD provides LST lookup tables for sites that measure up to one, two, or five acres; LSTs for construction sites smaller than one acre should use the one acre threshold.

Table 3-5: Proposed Project Maximum Daily Construction Emissions Compared to Localized Significance Thresholds (pounds/day)

Emissions Source	NO_x	CO	PM_{10}	$PM_{2.5}$
On-site construction equipment	33	38	1.5	1.4
LST (one-acre LST)	*118*	*602*	*4*	*3*
Threshold exceeded?	**No**	**No**	**No**	**No**

Operations

The pipeline and appurtenances would not be associated with long-term energy usage or additional EMWD O&M activities. Inspection and maintenance of the pipeline and above ground appurtenances, and exercise of the valves would be incorporated into EMWD's existing O&M activities. Thus, no new emissions would be associated with operation of the proposed Project.

c) Less than Significant Impact

Sensitive receptors are typically defined as schools (preschool–12th grade), hospitals, resident care facilities, senior housing facilities, day care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality (CARB 2018). Sensitive receptors near the proposed Project consist of single-family and multi-family residences along the pipeline alignment. Sugar Hill Elementary School is located one-fifth mile west of the proposed alignment and North Ridge Elementary School is located one-quarter mile south of the proposed alignment.

LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or State ambient air quality standard at the nearest sensitive receptor. The California and National Air Quality Standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. If a project is consistent with the latest adopted clean air plan and does not exceed the SCAQMD significance thresholds, it can be assumed that it will not have a substantial adverse impact on public health. Therefore, projects that conform to the LSTs and SCAQMD regional thresholds are assumed to have a less than significant impact on nearby sensitive receptors. As discussed under "b" above, the proposed Project's construction and operational emissions would not exceed SCAQMD regional thresholds or LSTs. Therefore, sensitive receptors would not be subjected to substantial pollutant concentrations and impacts would be less than significant.

d) Less than Significant Impact

The proposed Project would involve emissions of sulfur compounds from use of oil and diesel fuel during construction, which would potentially result in unpleasant odors. Construction would be temporary and odorous emissions from construction equipment tend to dissipate quickly within short distances from construction sites. Once the proposed Project is operational, the pipeline would not be associated with odors. Impacts would be less than significant.

Mitigation Measures: None required or recommended.

3.4 Biological Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	[ ]	[X]	[ ]	[ ]
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	[ ]	[ ]	[ ]	[X]
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	[ ]	[ ]	[X]	[ ]

d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	[ ]	[ ]	[ ]	[X]
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	[ ]	[ ]	[ ]	[X]
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	[ ]	[ ]	[ ]	[X]

Discussion

A Biological Technical Report was prepared in November 2021 for the proposed Project. A literature review and three field surveys were performed to assess the biological resources of the Project area. The complete Biological Technical Report is provided in **Appendix B** and is relied upon for the analysis in this IS/MND.

Regulated or sensitive resources studied and analyzed included special status plant and wildlife species, nesting birds and raptors, wildlife movement corridors and habitat linkages, sensitive plant communities, jurisdictional waters and wetlands, and locally protected resources (i.e., heritage trees). Potential impacts on biological resources were analyzed based on the following statutes:

- Federal Endangered Species Act
- Migratory Bird Treaty Act (MBTA)
- Bald and Golden Eagle Protection Act
- California Endangered Species Act
- California Fish and Game Code (CFGC)
- California Environmental Quality Act (CEQA)

- Native Plant Protection Act
- California Desert Native Plants Act
- Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)
- City of Moreno Valley Municipal Code

The literature review was completed to ensure that current and accurate data were integrated into the determination of the proposed Project's environmental and regulatory setting. The review consisted of publicly available spatial data from a variety of public agencies, geospatial warehouses, aerial imagery, and previously written reports related to the proposed Project area and surrounding U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles (**Appendix B**). Pertinent sources reviewed included, but were not limited to, the following:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database RAREFIND 5
- California Native Plant Society Inventory of Rare and Endangered Plants
- eBird online database of bird distribution and abundance
- Google Earth aerial imagery
- National Wetlands Inventory on-line wetlands mapper
- U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper and File Data
- Western Riverside County Multiple Species Habitat Conservation Plan

Field reconnaissance surveys of the pipeline corridor and potential staging areas, plus an additional 100-foot buffer around them (Project study area), were performed on February 17, August 30, and October 27, 2021. The purpose of the surveys was to characterize the existing biological conditions, search for special-status plants, animals, and habitats, and to map habitats and potentially jurisdictional aquatic resources. During the surveys, existing biological conditions were noted and vegetation alliances were mapped (**Appendix B**). A formal jurisdictional delineation of waters and wetlands was not performed for the Project because no components of the proposed Project would be located within potentially jurisdictional features.

a) Less than Significant with Mitigation Incorporated

The proposed Project would be constructed entirely within the Perris Boulevard right of way, and all potential staging areas are either sparsely vegetated with non-native, often invasive plant species and/or comprised of disturbed, barren ground. As a result, sensitive

species are not expected to occur within the Project study area due to the lack of suitable habitat as well as historical and existing disturbances. While the literature review identified 21 special-status invertebrate, amphibian, fish, bird, and mammal species within the search area, no special-status wildlife species were found on-site during the surveys, and none of the 21 species were considered likely to occur in the Project study area (**Appendix B**).

No nesting bird activity was detected during the field surveys and there is no nesting habitat within the Perris Boulevard right-of-way or the four potential staging area sites. However, the field survey confirmed trees, shrubs, low vegetation, and/or riparian habitat that could provide suitable nesting habitat for several common avian species is present in the Project study area. The common avian species are not candidate, sensitive, or special status; however, the Migratory Bird Treaty Act protects nearly all native bird species in the United States. These common species included mourning doves (*Zenaida macroura*) that have the potential to nest even in highly disturbed areas. Some common avian species, such as the spotted towhee (*Pipilo maculatus*), can be ground nesters and will nest on fairly exposed ground such as that found within some of the potential staging area sites. While the literature review identified 10 special-status bird species reported within the search area, they have either an "absent" or "unlikely" potential for occurrence within the Project area (**Appendix B**).

Construction of the proposed Project would occur entirely within the Perris Boulevard right-of-way and the high levels of existing disturbance within the potential staging area sites would likely deter wildlife and nesting birds' long-term use. However, while indirect impacts to plants and wildlife would be minimal, construction activities planned during the bird nesting/breeding season could have a potential significant impact on hatchlings or fledglings. **Mitigation Measure BIO-1** would be implemented to avoid impacts to nesting birds in areas with trees and shrubs adjacent to Perris Boulevard and the staging areas, by requiring a survey for nesting birds prior to construction and requiring active nests be avoided and monitored until construction activities cease. With implementation of **Mitigation Measure BIO-1**, impacts would be less than significant.

b) No Impact

The literature review identified 37 special-status plant species and numerous trees meeting the City of Moreno Valley's definition of heritage trees had previously occurred in the survey area. However, no special-status plant species were identified during the reconnaissance surveys, and the literature review determined none of the 37 species were likely to occur in the Project study area (**Appendix B**). Given the Project location in the Perris Boulevard right-of-way and the disturbed condition of the potential staging areas,

impacts to special-status plants are not anticipated. Sensitive plant species typically have very specific habitat requirements which the Project area does not support. There are no riparian, riverine, or natural communities present in the Perris Boulevard right-of-way or staging area sites. In addition, no heritage trees would be removed or impacted.

The Project area is within the boundaries of the Western Riverside MSHCP, which identifies sensitive natural communities and seeks to protect those communities by protecting areas with biological and ecological diversity. Within the Western Riverside MSHCP area, Criteria Areas, Public-Quasi Public Reserve Lands, and Core or Linkage Areas are defined in order to permanently preserve portions of habitat and decrease development in these areas. No components of the Project are within an existing or proposed Western Riverside MSHCP Criteria Area, Public-Quasi Public Reserve Lands, or within a Core or Linkage (**Appendix B**). There are no riparian/riverine habitats protected by the Western Riverside MSHCP within the proposed Project area; therefore, there are no compliance requirements of the Western Riverside MSHCP applicable to the proposed Project. Therefore, the proposed Project would have no impact on any riparian habitat or other sensitive natural community.

c) Less than Significant Impact

The proposed Project would not directly impact drainages or wetlands potentially under State or federal jurisdiction. The literature review identified a riverine feature crossing the northern portion of the survey area. The field survey identified this unnamed intermittent stream feature to be dominated by red willow (*Salix laevigata*), coyote bush (*Baccharis pilularis*), mulefat (*Baccharis salicifolia*), and common sunflower (*Helianthus annus*). This cover type is indicative of regular soil moisture. Further examination determined the drainage crosses under Perris Boulevard through a culvert from the northeast and continues towards the southwest (**Appendix B**). No staging or construction activities are proposed within the culvert or intermittent stream. Therefore, no impacts to this drainage would occur from the Project. No impacts to jurisdictional drainages, wetland or riparian habitat would result from the project. Furthermore, the Project's environmental commitments described in *Section 2.7* to control erosion and protect water quality would control sedimentation or other debris from moving out of the construction zone and entering the drainage feature. The project's impacts would be less than significant.

The potential Project area is almost entirely composed of moderately well-drained sandy loam soils that have been heavily disturbed due to past uses and would not be able to support vernal pools or vernal pool species. No vernal pools or fairy shrimp habitat was observed during the field survey. No impact would occur.

d) No Impact

No components of the Project are within existing or proposed wildlife corridors or habitat linkages defined in the Western Riverside MSHCP. The northern portion of the Project study area provides connectivity to the Blue Mountains located to the west and Reche Canyon to the east. The wildlife connectivity extends southwest into the Badlands community and the Riverside lowlands which includes Mystic Lake and the San Jacinto Wildlife Area. However, the proposed Project would not impact wildlife movement corridors and habitat linkages because the Project would be constructed within an existing roadway and previously disturbed, barren, unvegetated, and/or sparsely vegetated areas, outside the area of wildlife connectivity. Therefore, the proposed Project would have no impacts on wildlife movement.

e) No Impact

Chapter 9.17 of the City of Moreno Valley Municipal Code protects heritage trees, including older palms and olive trees and/or any tree designated as such by official action. "Heritage trees" are defined by the City as those with a 15" diameter (measured at 24" above ground level), or those 15 feet or taller in height (**Appendix B**). Although the literature review identified numerous trees meeting the City's definition of heritage trees within the survey area, no heritage trees would be removed or impacted during construction of the proposed Project. Therefore, there would be no impact.

f) No Impact

The proposed Project would be located in the Western Riverside MSHCP, but no components of the Project are located within existing or proposed Criteria Cells (**Appendix B**). There are no riparian/riverine habitats protected by the Western Riverside MSHCP within the proposed Project area; therefore, there are no compliance requirements of the Western Riverside MSHCP applicable to the proposed Project and the proposed Project would have no impact.

Mitigation Measures:

BIO-1: Preconstruction Nesting Bird Survey.

To avoid impacts to nesting birds, activities associated with vegetation removal, construction, and/ or grading shall be conducted September 16 and January 14, which is outside the peak nesting/ breeding bird season. If vegetation removal, construction, and/ or grading must occur during the leak nesting/ breeding season (January 15 through September 15), EMWD shall ensure that impacts to nesting/ breeding birds are avoided through the implementation of preconstruction surveys, establishment of

an exclusionary buffer zone, and ongoing monitoring, if necessary. EMWD shall designate a qualified biologist experienced in identifying local and migratory bird species; conducting bird surveys using appropriate survey methodology (such as CDFW-accepted species-specific survey protocols, available here: https://www.wildlife.ca.gov/conservation/survey-protocols); nesting surveying techniques; recognizing breeding and nesting behaviors; locating nests and breeding territories; identifying nesting stages and nest success; determining/ establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.

Prior to activities associated with vegetation removal, construction, and/ or grading during the peak bird nesting/ breeding season (January 15 through September 15), the biologist shall conduct surveys for active nests. Preconstruction nesting bird surveys should be conducted no more than three days prior to the start of clearance/construction work. If ground-disturbing activities are delayed, additional preconstruction surveys should be conducted so that no more than 3 days have elapsed between the survey and ground-disturbing activities.

Surveys shall encompass all suitable areas within 100 feet of the construction zone, including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of the site; density, and complexity of the land cover type; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected are complete and accurate. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior (e.g., copulation, carrying of food or nest materials, nest building, removal of fecal sacks, flushing suddenly from atypically close range, agitation, aggressive interactions, feigning injury or distraction displays, or other behaviors).

Active nests found within 100 feet of the construction zone shall be delineated with highly visible construction fencing or other exclusionary material that would inhibit entry by personnel or equipment into the buffer zone. Installation of the exclusionary material shall be completed by the qualified biologist prior to initiation of construction activities. The biologist shall identify an appropriate protective buffer zone around the nest depending on the sensitivity of the species, the nature of the construction activity, and the amount of existing disturbance in the vicinity. In general, the qualified biologist should designate a buffer of 50 to 200 feet for common nesting birds and 200 to 500 feet for special status nesting birds and nesting raptors. If excluding work activities from any established buffers is not feasible, the biologist may establish a modified buffer exclusion utilizing specific biological and/or ecological attributes of

the project location and avian species. The buffer zone shall remain intact and maintained while the nest is active (i.e., occupied or being constructed by at least one adult bird) and until young birds have fledged and no continued use of the nest is observed, as determined by the biologist. No construction activities shall be allowed within the buffer until nesting activity has ended to ensure protection of nesting birds. If the biologist determines nesting activities could fail as a result of work activities, all work shall cease within the buffer exclusion, and no entry into the buffer will occur. Construction activities within the no-work buffer may proceed after the biologist determines the nest is no longer active due to natural causes (e.g., young have fledged, predation, or other non-human causes of nest failure). The barrier shall be removed by construction personnel at the direction of the biologist.

3.5 Cultural Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	[ ]	[X]	[ ]	[ ]
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	[ ]	[X]	[ ]	[ ]
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	[ ]	[X]	[ ]	[ ]

Discussion

An Archaeological Survey Report was prepared in February 2022 for the proposed Project (SWCA 2022) (**Appendix C)**. The Archaeological Survey Report is compliant with CEQA.

The cultural resources study consisted of a cultural resources records search and literature review, a cultural resources survey, and preparation of a cultural resources technical report. The complete report is summarized in this IS/MND. No previously recorded cultural resources were identified within the Project area (defined as the proposed pipeline alignment and the four potential construction staging areas, shown in **Figure 2-7**) through database searches and no cultural resources were identified within the Project area during the field survey.

In December 2021, a cultural resources records search of the California Historical Resources Information System (CHRIS) at the Eastern Information Center (EIC) at the University of California, Riverside was conducted to identify any previously recorded cultural resources and cultural resources studies in and within a 1-mile radius of the proposed Project area. The CHRIS record search included a search of the California Inventory of Historic Resources, the Office of Historic Preservation (OHP) Archeological Resources Directory, and the OHP Built Environment Resources Directory (which includes the National Register of Historic Places, California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and historic building surveys). The records search found 29 cultural resource studies had been previously conducted within a 1-mile radius of the proposed Project area between 1974 and 2019. Of these 29 studies, four studies intersect the proposed Project area. From these studies, 16 previously recorded cultural resources were identified within a 1-mile radius of the proposed Project area. None are located within the proposed Project area. The recorded location of one site, P-33-001063 (a prehistoric site that consists of two bedrock mortars and no associated artifacts), is close to, but outside of the boundary of the northeast potential staging area.

In April 2021, Native American tribes identified by the Native American Heritage Commission who may have knowledge of cultural resources in the Project area were contacted. *Section 3.18 Tribal Cultural Resources* provides an overview of the tribal information gathering in regard to the proposed Project.

A review of historical topographic maps and aerial photographs of the proposed Project area from the early 1900s to the 2000s shows that development did not occur until the 1960s, starting in the southernmost portion of the Project area. Based on the aerial imagery, the majority of the proposed Project area remained largely undeveloped until between 1980 and 1997 when the majority of the area became fully developed with residential properties.

A pedestrian field survey of the proposed Project area was conducted on December 21, 2021. The purpose of the survey was to identify cultural resources that may be present

along the proposed transmission pipeline, which is beneath a paved roadway, and in four potential staging areas. Except for the paved roadway and sidewalks along Perris Boulevard, the entire right-of-way for the road was accessible and surface visibility was 50 to 60 percent. The four potential staging areas (northeast, northwest, southeast, and southwest) consist of already cleared and graded areas with excellent ground surface visibility ranging from 90 to 100 percent. The pedestrian survey did not identify any new cultural resources and confirmed site P-33-001063 does not extend into the proposed Project area.

a) Less than Significant Impact with Mitigation Incorporated

Historical resources are not anticipated to be encountered based on the results of the records searches, pedestrian survey, and the prior utilities location study. Previously recorded historic-era resources were identified within one mile of the Project area but were not identified in the Project area itself. Although no known historical resources would be affected by the proposed Project, construction has the potential to encounter previously unknown historical resources. While encountering unknown historical resources is unlikely based on the proposed Project area's previous ground disturbance and lack of previously recorded historical resources, the Archaeological Survey Report prepared for the proposed Project recommends a Worker Environmental Awareness Program (WEAP) training be provided to construction personnel and an on-call, qualified archaeologist be retained and notified in the event of unanticipated discovery of cultural resources during ground-disturbing construction activities. As such, **Mitigation Measure CUL-2** requires that a qualified archaeologist attend a pre-construction meeting with EMWD staff, the contractor, and appropriate subcontractors to discuss the Cultural Resources Monitoring Plan and protocols to be followed in the event that cultural material is encountered. **Mitigation Measure CUL-3** requires that a qualified archaeological monitor be present for ground-disturbing activities, make a determination as to the areas with a potential for encountering cultural material, and stop and redirect grading activities in order to evaluate the nature and significance of any cultural resources discovered within the Project limits. Implementation of **Mitigation Measures CUL-2** and **CUL-3** would ensure the procedures recommended in the Archaeological Survey Report are in place in the event of unanticipated discovery of previously unknown historical resources. Operation of the proposed Project would not involve ground disturbing activities and would therefore have no impact on cultural resources. Implementation of **Mitigation Measures CUL-2** and **CUL-3** would reduce potential impacts to previously unknown historical resources, if encountered during construction, to less than significant.

b) Less than Significant Impact with Mitigation Incorporated

Although there are no surface indicators of archaeological resources within the Project area, much of the pipeline alignment is obscured by pavement and landscaping and it is possible that unknown buried or obscured archaeological resources may exist. Although the Project area is considered to have low archaeological sensitivity, in the event construction exposes previously unrecorded archaeological resources, implementation of **Mitigation Measures CUL-1** through **CUL-5** would minimize impacts. **Mitigation Measure CUL-1** requires EMWD to develop a Cultural Resource Treatment and Monitoring Agreement. **Mitigation Measure CUL-2** requires a Cultural Resources Monitoring Plan be prepared prior to any grading activities, and that the Cultural Resources Monitoring Plan be discussed at a pre-construction meeting. **Mitigation Measure CUL-3** requires that a qualified archaeological monitor be present for ground-disturbing activities, make a determination as to the areas with a potential for encountering cultural material, and stop and redirect grading activities to evaluate the nature and significance of any cultural resources discovered within the Project limits. **Mitigation Measure CUL-4** requires that all artifacts discovered at the development site shall be inventoried and analyzed by the project archaeologist and that a monitoring report shall be prepared. **Mitigation Measure CUL-5** establishes procedures to be carried out in the event of an inadvertent discovery of Native American cultural resources. Operation of the proposed Project would not involve ground disturbing activities and would therefore have no impact on unique archaeological resources. With implementation of **Mitigation Measures CUL-1** through **CUL-5**, potential impacts from construction resulting in an adverse change to unique archeological resources would be less than significant.

c) Less than Significant Impact with Mitigation Incorporated

Although the proposed Project area is considered to have low archaeological sensitivity given the level of previous ground disturbance, there is always a possibility of discovering human remains during ground disturbing activities. **Mitigation Measures CUL-6** and **CUL-7** would be implemented to ensure proper procedures are in place if human remains are discovered during construction. **Mitigation Measure CUL-6** requires that the site of any reburial of culturally sensitive resources not be disclosed and not be governed by public disclosure requirements of the California Public Records Act. **Mitigation Measure CUL-7** requires Public Resources Code Section 5097.98 and California Health and Safety Code Section 7050.5 be followed if Native American human remains are encountered. There would be no ground disturbing activities during operation of the proposed Project and therefore no mitigation related to discovery of human remains would be required during operation. With implementation of **Mitigation Measures CUL-6** and **CUL-7**

during construction, impacts as a result of the inadvertent discovery of human remains would be less than significant.

Mitigation Measures:

CUL-1 Cultural Resources Treatment and Monitoring Agreement.

At least 30 days prior to the start of any ground-disturbing activities, EMWD 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.

CUL-2 Develop a Cultural Resources Monitoring Plan.

Prior to any 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-construction meeting with EMWD staff, the contractor, and appropriate subcontractors to discuss the monitoring

program, including protocols to be followed in the event that cultural material is encountered.

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, EMWD 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(s) shall have the authority to stop and redirect grading activities in order to evaluate the nature and significance of any cultural 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 EMWD and the Consulting Tribe(s), details of which shall be addressed in the Cultural Resources Treatment and Monitoring Agreement in CUL-1. Treatment may also include curation of the cultural resources at a tribal curation facility, as determined in discussion among EMWD, the project archaeologist, and the tribal representatives and addressed in the Cultural Resources Treatment and Monitoring Agreement referenced in CUL-1.

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.

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. EMWD 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 CUL-2 is the next preferable treatment measure. This shall include measures and provisions to protect the future reburial area from any 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, EMWD will 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 items 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.

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.

CUL-7 Human Remains.

If Native American human remains are encountered, Public Resources Code 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 Public Resources Code 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 Public Resources Code Section 5097.98

3.6 Energy

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

Discussion

Electrical service for the proposed Project area is provided by SCE. Natural gas service for the entire proposed Project area is provided by the Southern California Gas Company. SCE's power content mix utilizes approximately 35 percent renewables, eight percent large hydroelectric, 16 percent natural gas, eight percent nuclear, and 33 percent from unspecified power sources through transactions (SCE 2020).

The City of Moreno Valley produced both an Energy Efficiency and Climate Action Strategy (City of Moreno Planning Division 2012a) and a Greenhouse Gas Analysis (City of Moreno Planning Division 2012b) in 2012, in addition to participating in the Western Riverside Council of Governments (WRCOG) Subregional Climate Action Plan (CAP). The

Energy Efficiency and Climate Action Strategy outlines and prioritizes numerous energy efficiency and energy reduction measures, while the Greenhouse Gas Analysis establishes goals and policies that incorporate environmental responsibility to reduce GHG emissions.

a) Less than Significant Impact

Construction of the proposed Project would involve construction-related fossil fuel consumption from operation of diesel-powered construction equipment, and fossil fuel consumption from material hauling, delivery, and worker vehicle trips. The anticipated construction fleet for the proposed Project includes typical construction equipment such as a backhoe/loader, excavator, crane, utility truck, water truck, dump trucks, concrete saw, sweeper, paver, and generator. The construction vehicle fleet is summarized in Table 2-1 in *Section2.5 Proposed Project Description*.

Operation of the proposed Project would not involve the consumption of energy. Routine inspection of above ground components (e.g., hydrants) would be incorporated into EMWD's existing O&M activities and would not cause a net change in vehicle trips and hence fossil fuel consumption. Furthermore, the Project would improve operational efficiency of EMWD's potable water distribution system, thereby improving energy efficiency of the overall system in the long term.

The proposed Project would implement typical construction practices such as trenching and repaving. The Project would not require unusual or excessive construction equipment or practices that would result in wasteful, inefficient, or unnecessary consumption of energy compared to projects of similar type and size. In addition, the construction fleet contracted for the proposed Project would be required to comply with the CARB In-Use Off-Road Diesel-Fueled Fleets Regulations, which would limit vehicle idling time to five minutes, restrict adding vehicles to construction fleets with older-tier engines, and establish a schedule for retiring older, less fuel-efficient engines from the construction fleet (CARB 2019). Once construction is complete, the proposed Project would not involve operational energy consumption. As such, construction and operation of the proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy and impacts would be less than significant.

b) Less than Significant Impact

The City of Moreno Valley Energy Efficiency and Climate Action Strategy focuses on reducing energy and emissions from the City as an organization and encourages community members to reduce their own energy and GHG emissions. The City of Moreno Valley Energy Efficiency and Climate Action Strategy includes suggested measures to reduce emissions and GHGs through energy use reduction, water use reduction, recycling

and diversion, alternative transportation, and renewable energy utilization. The proposed Project would not result in a net increase beyond existing levels in energy use or vehicle trips during operation. The Project would not involve land use changes that would indirectly result in an increase in vehicle trips or vehicle miles travelled, such as from relocation of an existing road. As explained under question "a" above, the Project would not involve wasteful or inefficient energy consumption. Operation of the Project would not involve consumption of water or generation of solid waste. Therefore, the Project would not conflict with the City plan for energy efficiency, which was developed to keep Citywide GHG emissions in line with State reduction targets. Therefore, the proposed Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Impacts would be less than significant, and no mitigation would be required.

Mitigation Measures: None required or recommended.

3.7 Geology and Soils

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to	[ ]	[ ]	[ ]	[X]

	Division of Mines and Geology Special Publication 42.				
	ii) Strong seismic ground shaking?	[ ]	[ ]	[X]	[ ]
	iii) Seismic-related ground failure, including liquefaction?	[ ]	[ ]	[X]	[ ]
	iv) Landslides?	[ ]	[ ]	[X]	[ ]
b)	Result in substantial soil erosion or the loss of top soil?	[ ]	[ ]	[X]	[ ]
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	[ ]	[ ]	[X]	[ ]
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	[ ]	[ ]	[X]	[ ]
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	[ ]	[ ]	[ ]	[X]
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	[ ]	[X]	[ ]	[ ]

Discussion

The City of Moreno Valley is located in a valley surrounded by hills and mountains to the north, east, and south. As with many regions in Southern California, the City is located in areas of several known active earthquake faults. The San Jacinto Fault Zone runs through the eastern portion of the City, while the San Andres Fault Zone is approximately 15 to 20 miles north of the City, and the Elsinore Fault Zone is approximately 12 to 18 miles south of the City (City of Moreno 2021b).

Small amounts of land within the western and southern portion of the city are classified as having high potential for liquefaction susceptibility, and a small amount of land along the southern border is classified as having very high potential for liquefaction susceptibility (City of Moreno 2021b).

There are several regions of the city known to have unstable soils and/or be susceptible to landslides. The Badlands in Moreno Valley, located on the eastern edge of the city, consist of shale and siltstone that is highly porous and does not hold together when wet, which can cause slope instability and landslides during earthquake events. Other known unstable soils include the mountain slopes located in the southern portion of Moreno Valley which have loose granitic boulders that could slide down the slopes (City of Moreno Valley 2021b).

The Geotechnical Investigations Report (Converse Consultants 2021) prepared for the proposed Project **(Appendix D)** found all eight boring locations along Perris Boulevard and the two borings along Judson Street consisted of Alluvium Silty Sand under the asphalt concrete and aggregate base layers of the roadways. This sand was fine to course-grained with few gravel up to 0.5-inches maximum dimension. The soils were reddish brown with generally medium density with some ranges of very dense and loose material. The moisture content ranged from moist to dry, however, no groundwater was encountered in the 16.5 foot depth of exploration. Granitic bedrock was found at approximately five feet at Boring BH-2 under Judson Street.

The Project area lies in the north-central portion of a geological formation known as the Perris Block. The Perris Block is a relatively stable structural mass generally bounded by the San Jacinto Fault and the Elsinore Fault to the east and west, respectively; and the Chino and Temecula basins to the north and south, respectively. The San Jacinto Fault zone is the closest fault zone, located four miles east of the Project area, and has been known to be active up to present day. Most of the proposed Project alignment is underlain by very old alluvial fan deposits of consolidated silt, sand, gravel, and conglomerate; however, the northern and southern reaches are underlain by young alluvial fan deposits

of unconsolidated silt, sand, pebbly cobbly sand, and boulders (Converse Consultants 2021) (**Appendix D**).

a.i) No Impact

The Project would not be associated with significant levels of risk of loss, injury or death from rupture of a known earthquake fault. Based on California's Geological Survey's Earthquake Fault Zone Map (CGS 2018), the Project area is not within a Fault Zone. The nearest potentially active fault mapped in accordance with the Alquist-Priolo Earthquake Fault Zoning Act is the San Jacinto Fault Zone. The shortest distance between this Fault Activity Zone and the Project area is 2.1 miles. Due to the distance of the Fault Zone, there is no potential for surface fault rupture in the Project area.

a.ii) Less than Significant Impact

The San Jacinto Fault Zone, which runs through the eastern portion of the City of Moreno Valley and as close as 2.1 miles to the Project area, is one of the most active faults in Southern California. Additionally, the San Andres Fault Zone is approximately 15 to 20 miles north of Moreno Valley and the Elsinore Fault Zone is approximately 12 to 18 miles south.

The proposed alignment is situated in a seismically active region. As is the case for most areas of Southern California, ground-shaking resulting from earthquakes associated with nearby and more distant faults may occur at the proposed Project site. During the life of the Project, seismic activity associated with active faults can be expected to generate moderate to strong ground shaking at the Project site. Review of recent seismological and geophysical publications indicates that the seismic hazard for the project is high.

The proposed alignment is not located within a currently mapped State of California Earthquake Fault Zone for surface fault rupture. Table No. 3, Summary of Regional Faults in the Geotechnical Investigation Report **(Appendix D)** indicates that the San Jacinto strike slip fault is capable of producing a maximum magnitude earthquake of 7.88 magnitude and the South San Andreas fault, the next closest fault is capable of a 8.18 maximum magnitude shaking event. The Peak Ground Acceleration (pga) for the Project area is relatively high due to this close proximity to the San Jacinto Fault Zone and the potential for large magnitude events to be generated. Therefore, the Project components would likely be subject to seismic ground shaking in a measurable seismologic event.

Seismic activity is common in California, and the Project facilities would be designed per EMWD's Engineering Standards and Specifications, which would ensure structural resiliency. The Project would also be designed and constructed pursuant to

recommendations and requirements of the Geotechnical Investigations Report (Converse Consultants 2021) as well as applicable American Water Works Association (AWWA) standards, and would incorporate measures to accommodate seismic loading pursuant to guidelines such as the "Greenbook" Standard Specifications for Public Works Construction (Greenbook Committee of Public Works Standards, Inc. 2018) and the International Building Code (IBC; International Code Council 2018). These guidelines are produced through joint efforts by industry groups to provide standard specifications for engineering and construction activities, including measures to accommodate seismic loading parameters. These standards and guidelines are widely accepted by regulatory authorities and are regularly included in related standards such as municipal building and grading codes. In addition, the Project design would follow guidelines within the California Building Code (CBC; California Code of Regulations, Title 24, Part 2), which is based on the IBC with amendments to reflect conditions specific to California.

Because building and construction codes related to seismic shaking would be followed, there would be less potential for structural damage or loss due to seismic ground shaking. Even if structural damage does occur during a seismic event, it would be isolated to the various Project components; the Project would not exacerbate a risk of seismic-related damage to other existing resources and land uses in the vicinity. Impacts would be less than significant.

a.iii) Less than Significant Impact

Liquefaction is the process by which clay-free soil, such as sands and silts, temporarily lose cohesion and strength and turn into a fluid state during a severe ground shaking event. This primarily occurs in areas saturated with high groundwater levels and recent deposits of sands and silts. Based on review of hazard maps, the pipeline alignments are located within a State of California or Riverside County designated zone of liquefaction susceptibility of low to moderate risk of liquefaction (Riverside County, 2021). Groundwater was not encountered during the geotechnical investigations in any of the exploratory borings to the maximum explored depth of 16.5 feet below existing ground surface and as a result the liquefaction potential of the pipeline alignments is low to moderate (Converse Consultants 2021).

Seismically induced lateral spreading involves primarily lateral movement of earth materials over underlying materials which are liquefied due to ground shaking. It differs from slope failure in that complete ground failure involving large movement does not occur due to the relatively smaller gradient of the initial ground surface.

Lateral spreading is demonstrated by near-vertical cracks with predominantly horizontal movement of the soil mass involved. Generally due to the low to moderate risk for liquefaction and flat nature of pipeline alignments, the risk of lateral spreading is considered low to moderate (Converse Consultants 2021).

Additionally, the Project would be designed and constructed in accordance with EMWD's Engineering Standards and Specifications, and the other standards and guidelines described under "a.ii" above limiting risk of loss, injury, or death involving seismic-related ground failure such as liquefaction or lateral spreading to non-adverse levels. Therefore, the Project would have a less than significant effect on the environment.

a.iv) Less than Significant Impact

Seismically induced landslides and slope failures are common occurrences during or soon after large earthquakes. Due to the proximity of the proposed Project to the nearby foothills, the potential for seismically induced landslides affecting the proposed transmission pipeline is considered to be moderate (Converse Consultants 2021). However, all Project facilities would be designed in accordance with EMWD's Engineering Standards and Specifications and the other standards and guidelines described under "a.ii" above and in accordance with recommendations in the Geotechnical Investigations Report (Converse Consultants 2021) which would limit the potential for the Project to directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death resulting from a Project failure during a seismically induced landslide or slope failure. Therefore, the Project would have a less than significant impact.

b) Less than Significant Impact

Construction of the Project components would require soil-disturbing activities such as excavation, which would expose soil. The soil exposed by construction would be subject to erosion during strong winds, heavy rains, or other storm events. Proposed Project construction activities would disturb one acre or more in total and would require an NPDES Construction General Permit. A SWPPP would be prepared and implemented in compliance with the Construction General Permit. BMPs would be identified in the SWPPP to control and reduce pollutant discharges associated with construction and erosion. Once construction is complete, all pipelines disturbance areas would be returned to pre-Project conditions and therefore would not result in further soil erosion. Therefore, impacts would be less than significant.

c) Less than Significant Impact

The Project area lies in the north-central portion of the Perris Block formation, which is a relatively stable structural mass. Most of the proposed Project alignment is underlain by very old alluvial fan deposits of consolidated silt, sand, gravel, and conglomerate; however, the northern and southern reaches are underlain by young alluvial fan deposits of unconsolidated silt, sand, pebbly cobbly sand, and boulders (Converse Consultants 2021) (**Appendix D**).

Similar to the seismically induced landslide impacts addressed in response a.iv above and the liquefaction impacts addressed in response a.iii above, the Project's potential to result in unstable soils that could result in landslides, liquefaction (or lateral spreading which is induced by liquefaction) was determined to be a less than significant impact due to the relatively flat nature of the Project area and the Project's location within an existing roadway. Additionally, adherence to the Geotechnical Investigation Report design recommendations (Converse Consultants 2021), EMWD's Engineering Standards and Specifications, and other standards and guidelines would ensure structural resiliency to earthquake events and any other causes of lateral spreading or liquefaction. Therefore, implementation of the Project is not expected to result in significant risk of landslide, lateral spreading, or liquefaction.

Subsidence and collapse are a known risk in the southeast corner of Moreno Valley (Figure 4.7-2, City of Moreno Valley, 2021b); however, no proposed Project facilities would be located in this area. Additionally, the proposed Project would be constructed to the standards described in response a.ii and fill materials used to backfill would be stable with little risk of subsidence or collapse. Therefore, the Project is not expected to be susceptible to risks associated with land subsidence or collapse; impacts would be less than significant.

d) Less than Significant Impact

Expansive soils have the ability to significantly change their volume, shrink and swell, due to their soil moisture content. Expansive soils can crack rigid structures and potentially create pipeline rupture. Typically, expansive soils are very fine grained with a high to very high percentage (60 percent or more) of clay. Potentially expansive soils in the city are found in the Badlands–San Timoteo geological region (Moreno Valley, 2021b); however, the proposed Project is not located in this area. The Project would be in a soil area that is well-drained and consists of sandy loam soils with 1.5-15 percent clay particles (USDA 2019). Based on the clay particle content of the soil, the potential Project sites would not be located on expansive soils. Soils and soil-specific design measures for the Project were

evaluated during the geotechnical investigations and as described in response a.ii, the Project would incorporate geotechnical recommendations into Project design which would avoid damage to the infrastructure from expansive soils through resilient structural design. Therefore, impacts would be less than significant.

e) No Impact

The Project does not propose the construction or use of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impact.

f) Less than Significant Impact with Mitigation Incorporated

Fossils are valuable and nonrenewable resources of remains of ancient, commonly extinct organisms that help us understand the evolutionary history of life on earth. A paleontological study was completed in compliance with CEQA, federal, state, and local regulations to determine the potential Project impacts to paleontological resources in the Project area (**Appendix E**).

The California Public Resources Code (Section 5097.5) prevents an individual from removing, destroying, or altering any paleontological resources found on public lands without the permission of the public agency that has jurisdiction over the lands. The City of Moreno Valley contains a policy (Policy 7-6) for paleontological resources in its General Plan which states that areas expected to have paleontological or archaeological resources, based on the survey conducted by the University of California, Riverside Archaeological Research Unit, should follow its report to reduce potential impacts (**Appendix E**).

A Paleontological Resource Assessment Report was prepared in August 2021 for the proposed Project (**Appendix E**). Paleontological sensitivity of the geological units beneath the Project area was assessed through a literature review and a paleontological locality search. A request was submitted to the National History Museum of Los Angeles County for a list of known fossil localities for the Project area and immediate vicinity. The potential for impacts to significant paleontological resources was assessed based on the potential for ground disturbance to directly impact paleontological sensitive geologic units as defined by the Society of Vertebrate Paleontology (SVP).

As found in the Paleontological Resource Assessment Report, the Project site is directly underlain by Pleistocene older alluvial fan deposits (Qoa) and Holocene alluvial gravel and sand of stream channels (Qg). Additionally, Holocene alluvial sand, gravel, and clay of valley areas (Qa) may be present at the surface and/or subsurface, and Cretaceous plutonic rocks of the Peninsular Ranges (qdx) and Paleozoic or Mesozoic metasedimentary rocks (ms) may be present at shallow or unknown depths within the

Project area. The Natural History Museum of Los Angeles County (NHMLA) records search indicated the museum has several localities in Pleistocene-aged sediments within the Project vicinity; however, there are no museum records of fossil localities within the Project site. A review of the scientific literature provided context for these and other fossil discoveries. Analysis of these data allowed the assignment of paleontological sensitivity using the SVP paleontological potential classes, such that Pleistocene older alluvial fan deposits have a High Potential; Holocene alluvial gravel and sand of stream channels and Holocene alluvial sand, gravel, and clay of valley areas both have a Low to High Potential, increasing with depth; and Cretaceous plutonic rocks of the Peninsular Ranges and Paleozoic and Mesozoic metasedimentary rocks have No Potential. (**Appendix E**)

The proposed Project's ground disturbing activities such as trenching in the right-of-way to a depth up to 10 feet, as well as surface grubbing, has the potential to interfere with surficial or subsurface geologic units that could contain fossils; however, this potential is mitigated by the presence of previous ground disturbances throughout most of these areas at estimated depths of up to five feet. Previous disturbance within the first five feet below ground surface limits the potential for presence of paleontological resources and the potential for a significant impact to these resources. However, ground disturbances greater than five feet below ground surface have a much higher potential of impacting previously undisturbed native geologic deposits (e.g., Pleistocene old alluvial fan deposits [Qoa]) that have the potential to yield significant paleontological resources. Under Appendix G of State CEQA Guidelines, significant impacts to paleontological resources would occur if construction activities result in the destruction, damage, or loss of scientifically important paleontological resources and associated stratigraphic and paleontological data.

Because there is High Potential for the surficial or subsurficial geologic units to preserve fossils at depths greater than five feet, **Mitigation Measure GEO-1** through **4** shall be implemented to reduce potential impacts to less than significant levels. **Mitigation Measure GEO-1** requires retention of a Paleontologist meeting SVP standards to oversee implementation of paleontological mitigation efforts, including monitoring, fossil salvaging (if needed), reporting, and curation (if needed) which mitigates potential significant impacts of construction by identifying the resource as it is uncovered and providing an expert to address the handling and treatment of the resource should one be found. **Mitigation Measure GEO-2** will reduce the potential for significant impacts to fossils by requiring the Paleontologist to work with EMWD to prepare and conduct a paleontological focused Worker Environmental Awareness Program to train and educate workers on the legal requirements for preserving fossil resources and the procedures to follow in the event of a fossil discovery, incentivizing and discouraging impacts to

resources. **Mitigation Measure GEO-3** requires full-time paleontological monitoring when working in undisturbed high-potential subsurface geologic units at depths greater than five feet and part time spot-check monitoring when working in previously undisturbed low to high potential soils at depths greater than five feet to promptly identify paleontological resources quickly and to minimize potential impact. **Mitigation Measure GEO-4** applies in the event of a fossil discovery and provides operational requirements to the construction crews to avoid further impacts as well as procedures for assessment of the resource's significance. If the resource is determined significant, **Mitigation Measure GEO-4** provides steps and guidelines for salvaging and curating the resource, mitigating any potential significant impact.

Mitigation Measures:

Mitigation Measure GEO-1: A Project Paleontologist meeting the most current SVP standards shall be retained by EMWD to implement paleontological mitigation efforts, including overseeing paleontological monitoring, fossil salvaging (if needed), reporting, and curation (if needed) during the lifetime of the Project construction. The Project Paleontologist shall prepare a report of the findings of the monitoring efforts after construction is completed.

Mitigation Measure GEO-2: The Project Paleontologist shall develop paleontological materials and messaging for the Worker Environmental Awareness Program (WEAP). The Project Paleontologist or qualified EMWD representative shall present the materials and train the construction crew on the legal requirements for preserving fossil resources as well as fossil identification tips and procedures to follow in the event of a fossil discovery. This training program shall be given to the construction crew before ground-disturbing work commences and shall include handouts to be given to new workers as needed. The contractor shall document, through sign-in logs or other record keeping procedures, that all on-site workers involved in ground disturbing activities have received the WEAP materials and are apprised of identification procedures and legal requirements for preserving fossil resources.

Mitigation Measure MM-GEO-3: Full-time paleontological monitoring shall be required when ground-disturbing activities impact previously undisturbed, native sediments five feet below ground surface or deeper in areas mapped as Pleistocene old alluvial fan deposits (Qoa), which were identified to have a High Potential for paleontological resources in the 2021 Paleontological Resource Assessment Report. Part-time monitoring (i.e., spot-checking) shall be required when ground-disturbing activities impact previously undisturbed, native sediments five feet below ground surface or deeper in areas mapped as Holocene alluvial gravel and sand of stream

channels (Qg) (or Holocene alluvial sand, gravel, and clay of valley areas [Qa]), which have a Low to High Potential, increasing with depth, to check for the presence of older alluvial deposits with higher potential for paleontological resources. Monitoring shall not be required if/when ground-disturbing activities impact any previously disturbed sediments and/or when trenching is less than five feet below ground surface. Monitoring shall also not be required if/when basement rocks in the subsurface with No Potential for paleontological resources, such as Cretaceous plutonic rocks of the Peninsular Ranges (qdx) and Paleozoic or Mesozoic metasedimentary rocks (ms), are impacted. The Project Paleontologist, paleontological monitor, or a registered geologist shall be consulted to make determinations about geologic units deviating from project maps.

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

Mitigation Measure GEO-4: In the event of a fossil discovery, whether by the paleontological monitor or a member of the construction crew, all work will cease within a 50-foot radius of the find while the Project Paleontologist assesses the significance of the fossil and documents its discovery. Should the fossil be determined significant, it shall be salvaged following the current procedures and guidelines of the SVP (most recently 1995, 2010 respectively) and in consultation with the Western Science Center (WSC) in Hemet, California, or the Natural History Museum of Los Angeles County (NHMLA). Recovered fossils shall be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility. The most likely repositories will be the WSC or the NHMLA. A repository shall be identified and a curatorial arrangement will be signed prior to collection of the fossils.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	[ ]	[ ]	[X]	[ ]
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	[ ]	[ ]	[X]	[ ]

Discussion

GHGs are pollutants that are known to increase the greenhouse effect in the earth's atmosphere thereby adding to global climate change impacts. Several pollutants have been identified as GHGs, and the State of California definition of a GHG in the Health and Safety Code, Section 38505(g) includes CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Water vapor is also a GHG, however, it is short lived, and concentrations are largely determined by natural processes such as evaporation. Other GHGs such as fluorinated gases are created and emitted through anthropogenic sources. The most common anthropogenic sourced GHGs are CO_2, CH_4, and N_2O.

Measuring how much energy the emissions of one ton of a gas will absorb over a given period of time relative to the emissions of one ton of CO_2 is called the Global Warming Potential (GWP). CO_2e is the amount of GHG emitted multiplied by its GWP. CO_2 has a 100-year GWP of one; CH_4 has a GWP of 25; and N_2O has a GWP of 298.

In 2005, Executive Order (EO) S-3-05 set GHG emission reduction targets:

- 2010 should have 2000 levels;

- 2020 should have 1990 levels; and
- GHG emissions should be 80 percent below 1990 levels by 2050.

Senate Bill (SB) 32, passed in 2016, required that the CARB include in its next update to the Assembly Bill (AB) 32 Scoping Plan, "ensure that statewide GHG emissions are reduced to at least 40 percent below the statewide GHG emissions limit no later than December 31, 2030." EO B-55 set a GHG emission reduction target for California to be carbon neutral by 2045.

CARB adopted the *Scoping Plan* in December 2008 and a *Scoping Plan Update* in December 2017. The *Scoping Plan* contains the strategies California will implement to achieve a reduction of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. In the *Scoping Plan*, "CARB recommends that lead agencies prioritize onsite design features that reduce emissions, especially from vehicle miles travelled (VMT), and direct investments in GHG reductions within the proposed Project's region that contribute potential air quality, health, and economic co-benefits locally."

The City of Moreno Valley, EMWD, and the proposed Project lie within the jurisdiction of the SCAQMD. On December 5, 2008, the SCAQMD Board approved interim CEQA GHG significance thresholds for stationary sources, rules, and plans using a tiered approach for determining significance. Tier 3, the primary tier the SCAQMD board uses for determining significance, set a screening significance threshold of 10,000 $MTCO_2e$/year for determining whether a stationary source project would have a less than significant cumulative GHG impact (SCAQMD 2008b). This threshold is meant to apply to industrial projects where SCAQMD is the lead agency (Radlein, personal correspondence 2020).

The County of Riverside adopted a CAP in 2015 to establish goals and policies that incorporate sustainability and GHG reduction targets into its management process. The County set a goal to reduce emissions to 1990 levels by 2020 in line with the State's AB 32 GHG reduction targets. The CAP was updated in 2019 to contain further guidance on Riverside County's GHG Inventory reduction goals, thresholds, policies, guidelines, and implementation programs including 2030 thresholds to reduce emissions to 40 percent below 1990 levels. In particular the CAP elaborates on the County's *General Plan* goals and policies relative to GHG emissions and provides a specific implementation tool to guide future decisions of the County. The County's CAP includes a review process procedure for evaluating individual project GHG impacts and determining the significance under CEQA. The County's CAP is qualified for CEQA tiering and streamlining of individual projects' CEQA review. The County's CAP has set a threshold of 3,000 metric tons (MT) CO_2e per year to be used to identify projects that, when combined with the modest efficiency measures (e.g., energy efficiency matching or exceeding the Title 24

requirements in effect as of January 2017; water conservation measures that match the California Green Building Standards Code in effect as of January 2017) are considered less than significant.

The City of Moreno Valley has also produced both an *Energy Efficiency and Climate Action Strategy* and a *Greenhouse Gas Analysis* in 2012. The *Energy Efficiency and Climate Action Strategy* outlines and prioritizes numerous energy efficiency and energy reduction measures, while the *Greenhouse Gas Analysis* establishes goals and policies that incorporate environmental responsibility to reduce GHG emissions. The Greenhouse Gas Analysis sets a goal to reduce the City's emissions back to 1990 levels by 2020 which is equal to 798,693 metric tons CO_2e, which is consistent with the State's emissions reduction targets per AB 32 and SB 32.

The City of Moreno Valley draft Climate Action Plan was designed to reinforce the City's commitment to reducing emissions (City of Moreno Valley 2021c). Prepared in accordance with the State's SB 32 GHG emission targets, the City set targets of 6.0, 4.0, and 2.0 metric MT CO_2e per capita per year in 2030, 2040, and 2050, respectively. The City's CAP was prepared concurrently with the City's 2040 General Plan, which includes various land use, transportation, and planning strategies to result in GHG reductions. As a CEQA Qualified GHG Reduction Strategy, the City's CAP also enables a streamlined review of projects that demonstrate consistency with the CAP, through the Project Review Checklist.

a) Less than Significant Impact

The Project would create GHG emissions during construction only. Construction is expected to last approximately 11 months, and the Project's life expectancy is conservatively assumed to be 30 years for the purposes of this GHG analysis. Construction impacts would include emissions associated with pipeline trenching and installation, as well as on-road vehicle trips for mobilization and demobilization activities (e.g., potholing, testing/chlorination, and other activities). The Project would not be associated with a net increase in operation emissions because the pipeline would not require energy use to operate, and inspection of the pipeline and above ground appurtenances, and exercise of the valves would be incorporated into EMWD's existing O&M trips. Further details can be found in *Section 2 Project Description*.

Modeling of air emissions from construction was completed in CalEEMod version 2016.3.2 for construction of the pipeline. Details on construction, including timing and equipment, can be found in *Section 2.5 Proposed Project Description*. The Project would not emit GHGs associated with electricity consumption; all GHG emission would result from vehicle use, including construction equipment, haul trips, and worker trips. No energy requirements

are expected for the operation of the pipeline. Other Project details necessary for GHG emissions modeling were obtained from CalEEMod and design engineer estimates (e.g., equipment horsepower, load factors, fleet mix, and vehicle emissions factors).

In 2008, the California Air Pollution Control Officers Association (CAPCOA 2008) evaluated data from a diverse set of California cities and determined that a threshold of 900 $MTCO_2e$ would be appropriate to screen out small projects that would not result in cumulatively considerable GHG emissions. The results of the inventory for GHG emissions, as shown in the CalEEMod output tables in **Appendix A**, are presented in Table 3-6 along with the significance threshold. Consistent with the methodologies in the County CAP and SCAQMD GHG significance thresholds, total GHG emissions from construction have been amortized over the 30-year lifetime of the Project.

Table 3-6: Proposed Project GHG Emissions per Year ($MTCO_2e$/year)

Source	$MTCO_2e$
Operation	negligible
Construction (amortized over 30 years)	11
Total	**11**
Threshold	900
Exceed Threshold?	*No*

Note: CalEEMod's default CO_2e intensity factor for Southern California Edison is 702.44 lb/MWhr. However, recent information provided by SCE (2019) specifies a CO_2e intensity factor of 467.38 lb/MWhr for SCE, which was used in this analysis.

During construction, the proposed Project would emit a total of 341 $MTCO_2e$ in 2023. Amortized over a 30 year period, the Project would generate approximately 11 $MTCO_2e$per year.). In addition to the low per year generation of $MTCO_2e$, the Project would adhere to existing energy efficiency requirements during construction, including CARB's In-Use Off-Road Diesel-Fueled Fleets Regulations that limit vehicle idling time to five minutes, restrict adding vehicles to construction fleets that have lower than Tier 3 engines, and establish a schedule for retiring older and less fuel-efficient engines (CARB 2011). Construction related GHG impacts would be less than significant.

The State of California has set targets for renewable energy from the energy sector through the Renewable Portfolio Standard. The Renewable Portfolio Standard directs energy utilities to source half of their electricity sales from renewable sources by 2030 (CEC 2017). The proposed Project would not consume electricity. Therefore, the proposed Project would not conflict with or obstruct this target, and impacts would be less than significant.

b) Less than Significant Impact

California's 2017 Climate Change Scoping Plan focuses on reducing energy demand and GHG emissions that result from mobile sources and land use development. The proposed Project would not involve a considerable increase in new vehicle trips or land use changes that would result in an increase in vehicle trips, such as urban sprawl. The Scoping Plan also recognizes that about two percent of the total energy used in the state is related to water conveyance; it calls for, "increased water conservation and efficiency, improved coordination and management of various water supplies, greater understanding of the water-energy nexus, deployment of new technologies in drinking water treatment, groundwater remediation and recharge, and potentially brackish and seawater desalination." The proposed Project improves operational flexibility for EMWD, thus improving management of water resources.

The City of Moreno Valley draft CAP contains a Project Review Checklist for the purposes of project-level review under CEQA. However, the Project Review Checklist has not been finalized and is not yet available to evaluate project consistency.

The proposed Project would not interfere with existing City, County, or regional programs intended to reduce energy and improve water use efficiency. It would not result in GHG emissions higher than the CAPCOA or Riverside County CAP significance screening thresholds. The proposed Project would not, therefore, conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Impacts would be less than significant, and no mitigation would be required.

Mitigation Measures: None required or recommended.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	[ ]	[ ]	[X]	[ ]
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	[ ]	[X]	[ ]	[ ]
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	[ ]	[X]	[ ]	[ ]
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	[ ]	[ ]	[ ]	[X]

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	[ ]	[ ]	[ ]	[X]
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	[ ]	[ ]	[X]	[ ]
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	[ ]	[ ]	[X]	[ ]

Discussion

a) Less than Significant Impact

Use of construction machinery to excavate, grade, and install the proposed pipelines, interconnections, and appurtenances would involve the routine use, transport, and storage of hazardous materials (e.g., gasoline, diesel fuel, automotive fluids, solvents, lubricants).

To minimize the risks of exposure to hazardous materials from construction and routine O&M activities, federal, state and local regulations have been put into place to regulate hazardous material use, storage, transportation, and handling. EMWD would be required to be in compliance with all applicable federal, state, and local regulations pertaining to hazardous materials (Federal Code Title 40 and 49; Occupational Safety and Health Administration (OSHA) 29 CFR 1910; California code section 5001, 5401, 5701, and 25507; California Health and Safety Code Division 20, Chapter 6.5, Article 6.5, Article 6.6, and Article 13; and Riverside County ordinance 651.5). Conformance with the above regulations would require implementation of a SWPPP to address the discharge of contaminants (including construction-related hazardous materials) through appropriate BMPs. While specific BMPs would be determined during the SWPPP process based on site-specific characteristics (equipment types, etc.), they would include standard industry measures and guidelines contained in the National Pollutant Discharge Elimination

System (NPDES) Construction General Permit text. Conformance with federal hazardous materials transportation law (49 U.S.C. 5101 et seq.) and California Health and Safety Code Division 20, Chapter 6.5, Article 6.5 would require precautionary measures be taken during the routine transport of hazardous materials, such as testing and preparation of a transportation safety plan. According to California Health and Safety Code Division 20, Chapter 6.5, Article 13, used oil that may be produced from construction or operation of the Project would be recycled. With compliance with existing regulations, impacts would be less than significant.

b) Less than Significant with Mitigation Incorporated

As stated in *Section 2.4.1 Sensitive Receptors,* there are sensitive receptors within the Project vicinity which increase the risk of impact from an accidental release of hazardous materials. **Mitigation Measure HAZ-1** would minimize the risk of hazardous material exposure through material use and accidents by requiring EMWD and its construction contractor to develop a Hazardous Materials Management and Spill Prevention and Control Plan to ensure Project-specific contingencies are in place. Upon completion of construction, there is very low to no risk of accidental release of hazard materials during operations because the proposed pipeline would be underground and would not require the use of hazardous materials. With the implementation of **Mitigation Measure HAZ-1** the impacts from hazardous materials to the public or the environment from potential accidents during construction would be reduced to less than significant.

c) Less than Significant with Mitigation Incorporated

As described in *Section 2.4.1 Sensitive Receptors*, Sugar Hill Elementary School and North Ridge Elementary school are located within one-quarter mile of the Project area. There is a risk of accidental release of hazardous materials or toxic air pollutants during Project construction. As explained under responses "a" and "b" above, construction of the proposed Project would be compliant with local regulations and implementation of **Mitigation Measure HAZ-1** would reduce impacts to less than significant. In addition, the proposed Project's estimated maximum daily construction emissions of particulate matter and other air pollutants would be below the SCAQMD regional threshold and one-acre LST threshold as explained in *Section 3.3 Air Quality*. Therefore, impacts on schools within one-quarter mile of the proposed Project would be less than significant with implementation of **Mitigation Measure HAZ-1**.

d) No Impact

Regulatory records were searched through the California State Water Resources Control Board (SWRCB) GeoTracker database (SWRCB 2021) and the California Department of

Toxic Substances Control (DTSC) EnviroStor database (DTSC 2021). These databases provide information on potential, confirmed, and closed hazardous waste and substances sites in California. None of the Project locations are proposed on a site that is included on a list of recent or currently active clean-up or hazardous materials sites per Government Code Section 65962.5 (SWRCB 2021; DTSC 2021). Therefore, construction and O&M associated with the proposed Project would not create a significant hazard to the public or the environment through the release of existing materials related to a listed hazardous materials site. There would be no impact.

e) No Impact

The Project area is near the March Air Reserve Base (MARB), which has its own airport. However, the runways at the base are over 4.5 miles from the Project site and the Project area is outside of the MARB Airport Influence Area boundary (Riverside County Airport Land Use Commission 2014). In addition, the Project would not include tall structures that could interfere with airport safety measures. There would be no impacts.

f) Less than Significant Impact

The City of Moreno Valley Emergency Operations Plan (EOP) (City of Moreno Valley 2019a) provides guidance for the City's response to extraordinary emergency situations associated with natural, man-made and technological disasters. The EOP is a preparedness document and is designed to be read, understood, and exercised prior to an emergency. The Office of Emergency Management is responsible for working and communicating with local community stakeholders to practice, review, revise, and update plans to reflect changes in technology, personnel, and procedures.

The City of Moreno Valley Local Hazard Mitigation Plan (LHMP) (City of Moreno Valley 2017) is designed to reduce or eliminate long-term natural or man-made hazard risks and communicate the City's corresponding mitigation strategy. Components of the plan include hazard identification, asset inventory, risk analysis, loss estimation, and a mitigation strategy to reduce the effects of hazards in the city.

The proposed Project would construct approximately 6,700 linear feet of pipeline within Perris Boulevard and as a result would temporarily block access such that construction activities may conflict with the adopted emergency response plan and emergency evacuation plan (the City EOP and LHMP). Preparation of a Traffic Control Plan prior to the issuance of an encroachment permit from the City of Moreno Valley, and coordination with local emergency responders would be required regarding lane closures. Operations and Maintenance required during long-term operation of the Project would be incorporated into EMWD's existing O&M routine. These operational activities would

include inspection of the above ground appurtenances and exercise of the valves and would not interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant.

g) Less than Significant Impact

The proposed Project would involve the installation or maintenance of an underground pipeline and several above-ground valves, hydrants, blowoffs, which are not infrastructure that is typically associated with fire risk (*see Section 3.20 Wildfire*). However, the proposed Project area is partially located within a designated very high fire hazard severity zone (VHFHSZ) within the Moreno Valley Local Responsibility Area (LRA). The use of construction equipment could potentially spark or otherwise ignite a fire during normal construction activities. Implementation of EMWD's standard fire safety prevention measures (as noted in *Section 2.7 Environmental Commitments*), would ensure the 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 after mitigation.

Mitigation Measures:

Mitigation Measure HAZ-1: Hazardous Materials Management and Spill Prevention and Control Plan. Before construction begins, EMWD's construction contractor shall prepare a Hazardous Materials Management and Spill Prevention and Control Plan that includes a project-specific contingency plan for hazardous materials and water operations. The Plan will be applicable to construction activities and will establish policies and procedures according to applicable codes and regulations, including but not limited to the California Building and Fire Codes, and federal and Occupational Safety and Health Administration regulations. The Plan will include, but is not limited to the following:

- A discussion of hazardous materials management, including delineation of hazardous material storage areas, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas;
- Notification and documentation of procedures; and
- Spill control and countermeasures, including employee spill prevention/response training.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	[ ]	[ ]	[X]	[ ]
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	[ ]	[ ]	[X]	[ ]
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	[ ]	[ ]	[X]	[ ]
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	[ ]	[ ]	[X]	[ ]

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	[ ]	[ ]	[X]	[ ]
iv) impede or redirect flood flows?	[ ]	[ ]	[X]	[ ]
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	[ ]	[ ]	[ ]	[X]
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	[ ]	[ ]	[X]	[ ]

Discussion

Surface Water

The proposed Project is located in the Santa Ana River Basin, which includes portions of San Bernardino, Riverside, and Orange counties. Within the Basin, the Project is located in the San Jacinto River Watershed, which drains approximately 540 square miles into Canyon Lake. Canyon Lake discharges into Lake Elsinore, and Lake Elsinore discharges into a tributary of the Santa Ana River; however, discharges from these two lakes are very rare. Drainage in the City of Moreno Valley is provided by the Sunnymead Storm drain, Kitching Storm drain, and the Perris Valley Storm drain which convey storm flows into the San Jacinto River (City of Moreno Valley 2021b).

The RWQCB prepares and maintains the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan). The Basin Plan sets water quality standards in the Santa Ana River Basin by establishing beneficial uses for specific water bodies and designating numerical and narrative water quality objectives. Intermittent beneficial uses of the San Jacinto River downstream of the Project area have been identified, and include municipal and agricultural water supply, groundwater recharge, recreation, and freshwater habitat and wildlife uses. Beneficial uses of Canyon Lake and Lake Elsinore include municipal and agricultural supply, recreation, commercial uses, and freshwater habitat and wildlife uses (Santa Ana RWQCB 2019).

The State Water Resource Control Board also maintains the 303(d) List of Impaired Water Bodies, which identifies water bodies where water quality indicators exceed acceptable thresholds. The Project area does not directly drain to a 303(d)-listed impaired water body. However, Lake Elsinore and Canyon Lake are not attaining water quality standards due to excessive nutrients (nitrogen and phosphorous). Lake Elsinore is placed on the 303(d) list of impaired waters due to excessive levels of nutrients and organic enrichment/low dissolved oxygen. Canyon Lake is 303(d)-listed for excessive levels of nutrients (SWRCB 2019). The Santa Ana RWQCB develops and implements total maximum daily loads (TMDLs) to address water quality impairments and help achieve water quality standards. Water quality is also governed through NPDES stormwater discharge permits issued to municipalities, construction sites, and industrial facilities to control non-point-source pollutants in stormwater discharges to surface waters.

The U.S. Department of Homeland Security Federal Emergency Management Agency (FEMA) identifies flood hazard areas on Flood Insurance Rate Maps prepared for the National Flood Insurance Program. These areas, known as Special Flood Hazard Areas, are defined as areas where there is a one percent chance of flooding in any given year (also referred to as a 100-year flood). FEMA maps also identify moderate flood hazard areas, which are areas outside the one-percent flood area where there is a 0.2 percent chance of flooding in a given year (also referred to as a 500-year flood). Areas outside the 100-year and 500-year flood zones are considered areas of minimal flood hazard. There are no 100-year or 500-year flood zones in the Project area (FEMA 2008).

Groundwater

The Project site overlies the San Jacinto Groundwater Basin (California Department of Water Resources [DWR] Basin Number 8-05). The basin generally encompasses the areas of Moreno Valley, Perris, Hemet, San Jacinto, Sun City, and Menifee, and has an estimated storage capacity of roughly three million acre-feet (DWR 2006). EMWD's *West San Jacinto Groundwater Management Area 2019 Annual Report* divided the Basin into smaller management areas. The Perris North Groundwater Management Zone underlies the Project site (EMWD 2020).

The San Jacinto Groundwater Basin is designated by DWR as a high priority basin (DWR 2021). The western portion of the Basin (which includes the Perris North Groundwater Management Zone) is subject to the provisions of the Sustainable Groundwater Management Act (SGMA). EMWD acts as the Groundwater Sustainability Agency (GSA) for the western portion of the Subbasin. The GSA is required to develop a Groundwater Sustainability Plan (GSP) by January 31, 2022. The GSP will document basin conditions, and basin management will be based on measurable objectives and minimum thresholds

defined to prevent significant and unreasonable impacts on the sustainability indicators defined in the GSP (EMWD n.d.a.).

The Santa Ana RWQCB designates beneficial uses for the San Jacinto Groundwater Basin, including the Perris North Groundwater Management Zone. including municipal and agricultural supply, industrial service supply, and industrial process supply (Santa Ana RWQCB 2019).

a) Less than Significant Impact

The proposed Project would disturb an area greater than one acre in size and would therefore be required to obtain coverage under the NPDES Stormwater Construction General Permit during Project construction. The total disturbance area of the Project is 2.5 acres. As part of the Permit conditions, EMWD would be required to prepare a SWPPP, which would identify BMPs to control sediment and other construction-related pollutants in stormwater discharges. Typical BMPs include housekeeping practices such as proper waste disposal, covering stockpiles with tarps, containment of building materials, and inspection of construction vehicles to prevent leaks or spills. Contractors would be required to comply with the Construction General Permit throughout construction. Construction dewatering is not anticipated, but should it be needed, it would be either discharged to land in accordance with RWQCB Waste Discharge Requirements for construction dewatering; or discharged to the local storm drain system per Riverside County Flood Control and Water Conservation District (RCFCWCD) requirements; or discharged to the EMWD sewer system. Compliance with these permits, including implementation of BMPs would ensure the Project would not violate water quality standards or waste discharge requirements, nor significantly degrade surface water quality. Impacts on surface water quality would be less than significant.

Operation of the proposed Project would consist of distributing water through the proposed pipeline to EMWD's potable water system. No impacts on groundwater quality would be expected.

b) Less than Significant Impact

As discussed in *Section 2 Project Description*, the proposed Project would improve operational efficiency and redundancy in EMWD's potable water system. The Project would connect to existing pipelines and would be designed for future connections. As discussed in *Section 3.14 Population and Housing,* the proposed Project would serve existing demand and planned future growth and would not induce population growth or increased water demands. Therefore, the proposed Project would not decrease groundwater supplies or interfere with groundwater recharge efforts. Impacts would be less than significant.

c) Less than Significant Impact

The proposed Project would be constructed in an existing roadway which would be restored to pre-construction conditions, and thus would not permanently increase total impervious surface area. Project construction may result in disturbance or exposure of soil that could be subject to erosion and sedimentation during a rain event. However, implementation of BMPs as required by the NPDES Stormwater Construction General Permit and SWPPP would limit erosion and sedimentation. As a result, the proposed Project facilities would not impede or redirect flood flows, alter drainage patterns of the Project area, cause substantial erosion, substantially increase surface runoff, generate runoff in excess of the existing storm drainage systems, or be a source of polluted runoff. Therefore, the proposed Project would have a less than significant impact.

d) No Impact

A tsunami is a large ocean wave, caused by earthquakes or major ground movement. The proposed Project site is located approximately 40 miles from the Pacific Ocean; at this distance, a tsunami would not impact the Project vicinity. A seiche is a large wave generated in an enclosed body of water such as a lake, which is also typically caused by an earthquake. Based on morphology and hydrology, two waterbodies in Riverside County (Lake Perris and Lake Elsinore) may have the potential for seismically induced seiche. However, there are no significant documented seiche hazards for any water bodies within Riverside County and potential for inundation is low (County of Riverside 2015). According to the FEMA maps there are no 100-year or 500-year floodplains within the Project area (FEMA 2008). In addition, the Project pipeline would be installed below Perris Boulevard which would be resurfaced after construction, so there would be no risk of floods inundating the Project and potential for release of pollutants is low. Therefore, there would be no impact.

e) Less than Significant Impact

As noted previously, the Basin Plan sets water quality objectives for the Project area. Water quality thresholds identified in the Basin Plan are intended to reduce pollutant discharge and ensure that water bodies are of sufficient quality to meet their designated beneficial uses. The Project would not conflict with the water quality standards outlined in the Basin Plan or worsen water quality conditions in any 303(d)-listed water body. As discussed above, pollutant discharge during construction would be avoided via compliance with the Construction General Permit and SWPPP and NPDES permits for construction dewatering, if needed. Once operational, the Project would convey potable water for use in EMWD's service area. The Project would not discharge extracted or treated water or be a source of pollutants for downstream water bodies (e.g., San Jacinto River, Canyon Lake, Lake Elsinore). Therefore, the proposed Project would not conflict with the Basin Plan.

Under SGMA, a GSP must be prepared for the San Jacinto Groundwater Basin. The EMWD Board of Directors is the GSA for the West San Jacinto Groundwater Basin and is responsible for development and implementation of a GSP. The GSP must be completed by January 2022 per SGMA regulations, which would be prior to the start of Project operation. However, the proposed Project is not expected to have any adverse impacts on groundwater sustainability. The purpose of the Project is to improve operational efficiency of EMWD's existing potable water distribution system between existing Casey Tank and North Country Tank in the north and the future Judson Tank in the south. Another purpose of the Project is to improve operational redundancy in EMWD's potable water system, specifically the Moreno Valley 2060 Pressure zone. The Project does not involve the extraction of groundwater nor would result in any increases in impervious surfaces that could affect groundwater recharge, and thus the Project would not impact groundwater sustainability. Therefore, the Project would not conflict with applicable water quality control plans or groundwater management plans, and impacts would be less than significant.

Mitigation Measures: None required or recommended.

3.11 Land Use and Planning

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Physically divide an established community?	[ ]	[ ]	[X]	[ ]
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect	[ ]	[ ]	[ ]	[X]

Discussion

The proposed Project is located in the City of Moreno Valley. Land use in the City is governed by the zoning designations established in the General Plan and by municipal ordinances that outline acceptable uses in each zone. According to the City of Moreno Valley Land Use Map, surrounding land uses within the Project area include residential, rural residential, open space, and public facilities (City of Moreno Valley 2020a). The pipeline and appurtenances would be constructed within the Perris Boulevard right-of-way. The proposed temporary staging areas would be located on vacant land that is designated residential and rural residential. If the identified staging area options cannot accommodate all equipment storage/staging for the proposed Project, the construction contractor may use the Perris Boulevard right-of-way for the purposes of equipment storage, staging, and/or pipe stringing.

a) Less than Significant Impact

Construction of the proposed Project would temporarily impact access to adjacent land uses and result in short-term vehicle trip lengths, but impacts would not permanently affect the existing surrounding established communities. The majority of Project features (other than the above ground appurtenances and valves) would be located below ground and Perris Boulevard would be restored to pre-construction condition. The temporary construction staging areas would be located on land that is vacant and, if necessary, within

the Perris Boulevard right-of-way. The proposed Project would not permanently interfere with the pedestrian, bicycle or vehicle circulation and would not result in a physical barrier within the existing community. Therefore, the proposed Project would have a less than significant impact related to physically dividing an established community.

b) No Impact

The proposed Project would construct water pipelines and appurtenances to improve operational efficiency of EMWD's potable water system. The Project would be located in the existing Perris Boulevard roadway, with staging areas located on adjacent vacant land (and within the Perris Boulevard right-of-way if necessary), and the Project area would be returned to pre-construction conditions after construction is completed. Construction and operation of the Project would not conflict with the City of Moreno Valley's land use plans, zoning policies, or regulations.

No components of the Project site are located within existing or proposed criteria areas or reserves defined in the Western Riverside MSHCP. The northern portion of the Project area provides wildlife connectivity between the Blue Mountains located to the west and Reche Canyon to the east. The wildlife connectivity extends southwest into the Badlands community and the Riverside lowlands, which includes Mystic Lake and the San Jacinto Wildlife Area (**Appendix B**). The proposed Project would not impact wildlife movement corridors and habitat linkages because the Project would be developed within a roadway and previously disturbed, barren, unvegetated, and/or sparsely vegetated areas. Therefore, the Project would not conflict with applicable land use plans, policies, or regulations intended to avoid or mitigate an environmental effect.

Mitigation Measures: None required or recommended.

3.12 Mineral Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	[ ]	[ ]	[ ]	[X]
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	[ ]	[ ]	[ ]	[X]

Discussion

The Surface Mining and Reclamation Act of 1975 (SMRA) mandates a process for classification and designation of lands containing potentially important mineral deposits. Classification is carried out by the California Geological Survey (CGS) State Geologist and designation is a function of the CGS State Mining and Geology Board. Lands are given a priority listing through classification into Mineral Resource Zones (MRZs). These MRZs are based on geological appraisals which include the use of literature, geological maps, and publications and data from the CDOC Division of Mines and Geology, US Geological Survey, the former US Bureau of Mines, and the US Bureau of Land Management. It also includes site investigations that determine the chemical and physical components of the area. An area can be classified as:

- Areas of Identified Mineral Resource Significance
- Areas of Undetermined Mineral Resource Significance
- Areas of Unknown Mineral Resource Significance
- Areas of No Mineral Resource Significance

The Division of Mines and Geology has identified Moreno Valley as an area with no significant mineral resources (City of Moreno Valley 2021b). There are sand and gravel resources located near Moreno Valley and within Riverside County; however, there are no operating quarries for these resources (City of Moreno Valley 2021a & 2021b). Additionally, the sand and gravel resources found in the nearby areas are not considered to be important local resources (City of Moreno Valley 2021a & 2021b).

a, b) No Impact

The CDOC, Division of Mines and Geology has not identified significant mineral resources within Moreno Valley (Moreno Valley 2021b). The CGS classifies the proposed Project area as sand and gravel resource areas based on SMARA Special Report 143: Part VII (CDOC 2021). The common mineral materials found in the area are sand, gravel, and rock, which are not considered valuable mineral resources locally, to the region, or to residents of the State (Moreno Valley 2021a & 2021b). Therefore, no impact to availability of valuable mineral resources would occur. The proposed Project area is not currently used as a mineral resource recovery site and the proposed Project would not involve mining or the production of mineral resources. No impact on the availability of a known mineral resource or the availability of a locally-important mineral resource recovery site would occur as a result of construction or operation of the proposed Project.

Mitigation Measures: None required or recommended.

3.13 Noise

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

Discussion

Noise is generally defined as unwanted sound. Noise can cause hearing impairment for humans, and may also disrupt everyday activities such as sleep, speech, and activities requiring concentration. Noise can also interfere with the activities of wildlife, especially nesting birds. Noise-sensitive land uses are generally those where excess noise would disrupt how humans and/or wildlife use the land. Land uses such as schools, churches, and hospitals would typically be considered noise-sensitive. Noise may be generated by

mobile (i.e., line) sources (for example, cars, trains, and aircraft) or stationary (i.e., point) sources (for example, machinery, airports, and construction sites).

Noise is described using specific terminology, as summarized below. The following explanations are adapted from the U.S. Department of Transportation Federal Highway Administration (FHWA) *Construction Noise Handbook* (FHWA 2006) and the U.S. Department of Transportation Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018):

- **A-Weighting.** A method used to account for changes in level sensitivity as a function of frequency. A-weighting de-emphasizes the high (6.3 kilohertz [kHz] and above) and low (below 1 kHz) frequencies and emphasizes the frequencies between 1 kHz and 6.3 kHz, in an effort to simulate the relative response of the human ear.
- **Community Noise Equivalent Level (CNEL).** A 24-hour time-averaged sound exposure level adjusted for average-day sound source operations. The adjustment includes a 5-dB penalty for noise occurring between 7:00 p.m. and 10:00 p.m., and a 10-decibel (dB) penalty for those occurring between 10:00 p.m. and 7:00 a.m., to adjust for the increased impact of nighttime noise on human activities.
- **Day-Night Average Sound Level (DNL or denoted by the symbol, L_{dn}).** L_{dn} describes a receiver's cumulative noise exposure from all events over 24 hours. Events between 10:00 p.m. and 7:00 a.m. are increased by 10 dB to account for humans' greater nighttime sensitivity to noise.
- **Decibel (dB).** A unit of measure of sound level. dB is calculated by comparing sound pressure to a sound pressure reference (the threshold of human hearing) and are measured using a logarithmic scale. A-weighted decibels are expressed as dBA or dB(A).
- **Equivalent Sound Level (L_{eq}).** The equivalent sound level describes a receiver's cumulative noise exposure from all events over a specified period of time.
- **Ground Effect.** The change in sound level, either positive or negative, due to intervening ground between source and receiver. Ground effect is influenced by multiple factors, including ground characteristics, source-to-receiver geometry, and the spectral characteristics of the source. A commonly used rule-of-thumb for propagation over soft ground (e.g., grass) is that ground effects will account for about 1.5 dB per doubling of distance. However, this relationship is quite empirical and tends to break down for distances greater than about 100 to 200 ft.

- **Line Source.** A source of noise that is created by multiple point sources moving in one direction; for example, a continuous stream of roadway traffic, which radiates sound cylindrically. Sound levels measured from a line source decrease at a rate of 3 dB per doubling of distance.
- **Noise Barrier.** The structure, or structure together with other material, that potentially alters the noise at a site.
- **Point Source.** A source that radiates sound spherically. Sound levels measured from a point source decrease at a rate of 6 dB per doubling of distance.
- **Ten-Percentile Exceeded Sound Level (L_{10}).** The sound level exceeded 10 percent of a specific time period. For example, from a 50-sample measurement period, the fifth (10 percent of 50 samples) highest sound level is the 10-percentile exceeded sound level. Other similar descriptors include L_{50} (the sound level exceeded 50 percent of a specific time period), L_{90} (the sound level exceeded 90 percent of a specific time period), etc.

Groundborne vibration may occur when heavy equipment or vehicles create vibrations in the ground, which can then propagate through the ground to buildings, creating a low-frequency sound. Groundborne vibration can be described by both its amplitude and frequency. Amplitude may be characterized by particle velocity, which is measured in inches or millimeters per second. Vibration can be felt outdoors, but the perceived intensity of vibration impacts is much greater indoors, due to the shaking of the structure. Groundborne vibrations can be a source of annoyance to humans due to a "rumbling" effect, and such vibrations may also cause damage to buildings. Groundborne vibration is discussed in terms of these impacts on humans and structures. The annoyance potential of groundborne noise is typically characterized with the A-weighted sound level. Some of the most common sources of vibration come from trains, transit vehicles, construction equipment, airplanes, and large vehicles. Several land uses are especially sensitive to vibration, and therefore have a lower vibration threshold. The following vibration terminology have been adapted from the FTA's *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018):

- **Vibration Decibels (VdB)**. The vibration velocity level in decibel scale.
- **Peak Particle Velocity (PPV)**. The peak signal value (maximum positive or negative peak) of the vibration signal. PPV is often used in monitoring of construction vibration (such as blasting) because it is related to the stresses that are experienced by buildings and is not used to evaluate human response. PPV is usually expressed in inches/second in the United States.

- **Root Mean Square (rms)**. The rms is used to describe the smoothed vibration amplitude. The rms amplitude is used to convey the magnitude of the vibration signal felt by the human body, in inches/second. The average is typically calculated over a one-second period. The rms amplitude is always less than the PPV and is always positive.

Noise Standards

The proposed Project would be located entirely within the City of Moreno Valley. The noise standards for this jurisdiction are summarized herein. For construction noise, the City of Moreno Valley Municipal Code, Sections 8.14.040 and 11.80.030, restricts construction within the city to between 7:00 a.m. and 7:00 p.m. on weekdays, and from 8:00 a.m. to 4:00 p.m. on Saturdays. The City Municipal Code also prohibits sound within the city that exceeds levels determined by the Centers for Disease Control and Prevention and the National Institute for Occupational Safety and Health to cause permanent hearing loss. For a sound that lasts eight hours per day, that limit is 90 dBA.

For long-term operational noise, the City of Moreno Valley prohibits non-impulsive, maximum noise levels which exceed the following limits measured at a distance of 200 feet or more from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property (Table 3-7) (City of Moreno Valley n.d.a.).

Table 3-7: City of Moreno Valley Noise Guidelines

Residential (in dBA)		Commercial (in dBA)	
Daytime	Nighttime	Daytime	Nighttime
60	55	65	60

City of Moreno Valley General Plan has two goals related to minimizing noise impacts in the land use planning process:

- Goal N-1: Design for a pleasant, healthy sound environment conductive to living and working
- Goal N-2: Ensure that noise does not have a substantial, adverse effect on the quality of life in the community

In addition to Goals N-1 and N-2, the Moreno Valley General Plan identifies several policies and actions to address noise concerns, several of which are summarized here:

- N.1-1: Protect occupants of existing and new buildings from exposure to excessive noise, particularly adjacent to freeways, major roadways, the railroad, and within areas of aircraft overflight

- N.1-3: Apply the community noise compatibility standards (Table 3-8) to all new development and major redevelopment projects
- N.1-4: Require a noise study and/or mitigation measures if applicable for all projects that would expose people to noise levels greater than the "normally acceptable" standard and for any other projects that are likely to generate noise in excess of these standards.
- N.1-5: Noise impacts should be controlled at the noise source where feasible, as opposed to at receptor end with measures to buffer, dampen, or actively cancel noise sources. Site design, building orientation, building design, hours of operation, and other techniques, for new developments deemed to be noise generators shall be used to control noise sources.
- N.2-3: Limit the potential noise impacts of construction activities on surrounding land uses through noise regulations in the Municipal Code that address allowed days and hours of construction, types of work, construction equipment, and sound attenuation devices.
- N.2-A: Continue to maintain performance standards in the Municipal Code to ensure that noise generated by proposed projects is compatible with surrounding land uses.

The City of Moreno Valley Community Noise Compatibility guidelines for land use are summarized in Table 3-8. These standards are intended to be used for the siting of new land uses.

Table 3-8: Moreno Valley Community Noise Compatibility Levels

Land Use Type	Normally Acceptable (L_{dn} or CNEL dBA)	Conditionally Acceptable (L_{dn} or CNEL dBA)
Residential – Low Density Single Family; Duplex; Mobile homes	50-65	65-70
Residential – Multiple Family	50-65	65-70
Schools, libraries, churches, hospitals, nursing homes	50-70	not defined
Playgrounds, Neighborhood parks	50-70	not defined
Office buildings; Business; Commercial; and Professional	50-70	70-77

Note: "Conditionally Acceptable" means new development should be allowed only after detailed analysis is made and needed noise insulation features included in the design.

The County of Riverside General Plan Noise Element (Riverside County 2015) and the State of California Department of Health Services (OPR 2017) also specify sound levels for land use compatibility. Both the County and State compatibility levels are similar to the City of Moreno Valley land use compatibility noise standards.

EMWD, as a public agency, is not subject to other jurisdictional agencies' established noise standards. Likewise, as a public agency, EMWD is not subject to the City or County ordinances and would not be required to obtain variances. EMWD has not established an applicable noise standard of its own for permanent or temporary ambient noise levels. However, EMWD follows a "good neighbor" approach to adhering to local noise standards. The noise standards of the City of Moreno Valley are used for the purposes of evaluating the significance of the Project's noise levels for the purposes of this analysis under CEQA.

Existing Conditions

The Project area setting is partially built-out. Surrounding land uses include residential, rural residential, open space, and public facilities. The area to the north is largely undeveloped open south, while the area to the south is built-out.

Transportation is the major source of noise in the City of Moreno Valley. Sources include roadways (especially along SR-60 and arterial roadways due to high traffic volumes) and the joint-use airport at the MARB (City of Moreno Valley 2021a).

Noise-sensitive receptors adjacent to or in the vicinity of pipeline alignment include the single-family and multi-family residences on either side of the proposed alignment along Perris Boulevard. In addition, the following schools are located within one-quarter mile of the Project site: Sugar Hill Elementary School and North Ridge Elementary School. The pipeline alignment would be located in the existing roadway right-of-way, typically at least 25 feet from the nearest receptor.

The pipeline alignment at the north end is surrounded by vacant land, open space, and rural residential land uses. The central segment is bordered on either side by residential land uses. Existing noise attenuation features include a five-foot masonry wall along the west side of the roadway at the residential property lines. At the southern end of the proposed alignment on Perris Boulevard, the surrounding residential land uses are not as densely developed.

a) Less than Significant with Mitigation Incorporated

Construction

Construction of the proposed Project is expected to last 12 months. However, the pipeline trenching, and installation phase is estimated to last approximately four months and would involve the most noise-generating activities from use of heavy construction equipment and hauling. The construction equipment that would be used for any particular Project component can be found in *Section 2.5 Proposed Project Description*. The typical noise level of each piece of construction equipment that would be used for the Project is shown in Table 3-9.

Table 3-9: Typical Construction Equipment Noise Levels

Equipment	Typical Noise Levels (dBA, at 50 feet)
Backhoe/Loader	78
Compressor	78
Concrete Saw	90
Crane	81
Dump Truck	76
Generator	81
Hydraulic Excavator	81
Pavement Breaker	89[1]
Paver	77
Pick-up Trucks	75
Pump	81
Sweeper	82
Utility Truck	74[1]
Water Truck	84[1]
Welder	74

Source: FHWA 2006a

1. Pavement breaker noise level was assumed to be comparable to a jackhammer. Water truck noise was assumed to be comparable to a tractor. Utility truck noise was assumed to be comparable to a flat-bed truck.

Construction of the proposed pipelines would occur in the Perris Boulevard right-of-way during daytime hours. Potential pipeline alignment and staging areas are shown in Figure 2-2 and Figure 2-7. Pipelines would be constructed using an open cut trenching method; no trenchless construction methods are proposed. Pipeline construction would include noise-generating activities such as saw cutting of the pavement, trench excavation, trench backfill and compaction, and site restoration/pavement replacement. Pipeline construction is expected to occur at a rate of 100 linear feet per day, Therefore, construction noise impacts at any one receptor would be of short duration as construction would move along the pipeline alignment as it is completed.

During Project construction, truck trips would generate noise along haul routes. Project construction would require approximately 43 round-trip worker trips per day and an average of approximately 33 round-trip hauling trips per day during the busiest phase of construction - pipeline trenching, installation, and paving. Noise-sensitive land uses along haul routes, including residences and schools, would be exposed to truck noise during construction. The amount of noise generated is affected by the vehicle speed, load, road condition, and other factors. As noted in the City of Moreno Valley General Plan, road

noise is a major noise source in the city. Construction truck noise that occurs in noisy locations is generally less disruptive than the same noise would be in a quieter location.

Existing features in the area can also attenuate noise to residential receptors. The approximate range of noise attenuation from existing features was estimated based on the Federal Highway Administration Roadway Construction Noise Model User Manual, which provides the guidance on shielding as summarized in Table 3-10 (FHWA 2006).

Table 3-10: Noise Shielding Guidance References

dBA of Shielding	Equivalent to the following between noise source and receptor
0	No barriers or breaks in the line of sight between the noise source and the receptor.
3	A noise barrier or other obstruction (like a dirt mound) just barely breaks the line-of-sight between the noise source and the receptor.
5	Noise source is enclosed or shielded with a solid barrier close to the source, but the barrier has some gaps in it.
8	Noise source is enclosed or shielded with a solid barrier close to the source
10	Noise source is completely enclosed and shielded with a solid barrier close to the source.
15	A building stands between the noise source and receptor and completely shields the noise source.

Source: FHWA 2006

Table 3-11 summarizes existing attenuation features that will contribute to the reduction of construction noise.

Table 3-11: Existing Attenuation Features along Proposed Pipeline Alignment

Site	Existing Attenuation Features	Approximate Attenuation Factors (dBA)
West side of Perris Blvd between Sunnymead Ranch Parkway and Sunday Drive	5-foot masonry walls	3-5

An estimate of Project related construction noise was modeled using the Federal Highway Administration Roadway Construction Noise Model (RCNM). Model results are included in **Appendix F** and make a conservative, worst-case assumption about the total pieces of equipment that could be in use at any one time. The noise estimate relied on the default equipment list and noise specifications available in the RCNM. Assuming simultaneous use of the construction vehicle fleet shown in Table 3-12, the noise level at a distance of 50 feet would be approximately 87.9 dBA L_{eq}. Where there are masonry walls between the area actively under construction and residences, the noise levels would be about 82.9 dBA L_{eq}. See Table 3-12.

Table 3-12: Modeled Construction Noise

Equipment	Modeled Usage (%)	Noise Level at 50 feet	Noise Level at 50 feet with 5 dBA shielding
Concrete Saws (2)	20	82.6	77.6
Crane	16	72.6	67.6
Dump Trucks (2)	40	72.5	67.5
Excavator	40	76.7	71.7
Pickup Trucks (3)	40	71	66
Pumps	50	77.9	72.9
Backhoes (2)	40	73.6	68.6
Welder / Torch	40	70	65
Total		**87.9**	**82.9**
Source: Federal Highway Administration's Roadway Construction Noise Model Software, Version 1.1, 12/08/2008			

Project construction noise generated by EMWD project construction is not subject to the City of Moreno Valley ordinances, is unlikely to exceed the levels prohibited in the City Municipal Code that could cause permanent hearing loss and would occur during daytime hours in accordance with the City Municipal Code. Nonetheless, due to the proximity of construction activities to residences and other noise-sensitive receptors, impacts from construction noise would be potentially disruptive to daily activities. With implementation of **Mitigation Measure NOI-1**, which requires the construction contractor to implement BMPs for noise control, daytime construction noise impacts would be reduced to less than significant.

Once operational, the below-ground conveyance pipelines would not generate noise. Noise may be associated with occasional vehicle maintenance trips but these trips would be negligible. The Project would have less-than-significant long-term operational noise impacts.

b) Less than Significant Impact

Construction activities associated with the proposed Project would have the potential to generate low levels of groundborne vibration. Groundborne vibrations propagate through the ground and decrease in intensity quickly as they move away from the source. Vibrations with a PPV of 0.2 inches/second or greater have the potential to cause damage to non-engineered timber and masonry buildings (FTA 2018). The *Transit Noise and Vibration Impact Assessment Manual* provides average source levels for typical construction equipment that may generate groundborne vibrations. Most construction equipment that would be used in construction of the Project is not expected to generate

substantial groundborne vibration. For example, a loaded truck produces 0.076 PPV at a distance of 25 feet, and a pavement breaker produces 0.035 PPV at a distance of 25 feet. None of the construction equipment to be used would exceed the PPV threshold at a distance of 25 feet, which is the closest that the Project construction would be to adjacent, existing land uses.

According to the FTA's *Transit Noise and Vibration Impact Assessment Manual*, 80 VdB is the threshold for human annoyance from groundborne vibration noise when events are infrequent. Typical vibration dB levels for a loaded truck are 86 VdB at a distance of 25 feet, and a pavement breaker typically produces 79 VdB at a distance of 25 feet. Pipeline construction would occur near sensitive receptors, including residences. Groundborne vibration and noise tends to be more perceptible and disruptive during nighttime hours when people are generally indoors and asleep. Pipeline construction would occur only between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and from 8:00 a.m. to 4:00 p.m. on Saturdays in accordance with City Code; and would therefore avoid impacts during the night when they would be more likely to be noticed. The pipeline would be constructed at least 25 feet from the nearest sensitive receptors. Loaded trucks would produce levels of vibration noise that exceed the 80 VdB threshold for human annoyance at a distance of 25 feet. Groundborne vibration noise from loaded trucks would attenuate to below 80 VdB at a distance of 40 feet ($VdB_{distance} = VdB_{reference} - 30\log(distance/25)$) (FTA 2018). Vibrations associated with pipeline construction would occur infrequently and would be short in duration. Additionally, pipeline construction would move along the alignment at a rate of 100 linear feet per day and would not remain in the same location for an extended period of time; therefore, sensitive receptors near the pipeline alignment would not experience vibrations for the entire duration of Project construction. Exposure would be temporary, sporadic, and limited in duration. Once operational, the pipeline would not produce groundborne vibration or groundborne noise. The impact would be less than significant.

c) No impact

The Project is not located within the vicinity of an airport. The closest airport is the MARB/March Inland Port, located southwest of the City of Moreno Valley. The airport is roughly 4.5 miles from the Project site and the runways at the base are approximately five miles from the Project site. The Project site would be outside the 60-CNEL noise contour for the airport (City of Moreno Valley 2021a). The Project would not expose residences or workers to excessive aircraft noise and there would be no impact.

Mitigation Measures:

To mitigate possible noise impacts of the Project, EMWD shall implement **Mitigation Measure NOI-1**. With implementation of this e mitigation measure, the Project impacts are considered less than significant.

Mitigation Measure NOI-1: Construction Noise Reduction Measures

EMWD shall require its contractor to implement the following actions relative to construction noise:

- EMWD shall conduct construction activities between 7:00 a.m. and 7:00 p.m. on weekdays in accordance with the City of Moreno Valley Municipal Code, Sections 8.14.040 and 11.80.030.
- Prior to construction, EMWD in coordination with the construction contractor, shall provide written notification to all properties within 50 feet of the proposed Project facilities informing occupants of the type and duration of construction activities. Notification materials shall identify a method to contact EMWD's program manager with noise concerns. Prior to construction commencement, the EMWD program manager shall establish a noise complaint process to allow for resolution of noise problems. This process shall be clearly described in the notifications.
- Stationary noise-generating equipment shall be located as far from sensitive receptors as possible. Such equipment shall also be oriented to minimize noise that would be directed toward sensitive receptors. Whenever possible, other non-noise generating equipment (e.g., roll-off dumpsters) shall be positioned between the noise source and sensitive receptors.
- Equipment and staging areas shall be located as far from sensitive receptors as possible. At the staging location, equipment and materials shall be kept as far from adjacent sensitive receptors as possible.
- Construction vehicles and equipment shall be maintained in the best possible working order; operated by an experienced, trained operator; and shall utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds).
- Unnecessary idling of internal combustion engines shall be prohibited. In practice, this would require turning off equipment if it would idle for five or more minutes.
- Electrically powered equipment shall be used instead of pneumatic or internal-combustion powered equipment, where feasible.

- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.

3.14 Population and Housing

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	[ ]	[ ]	[ ]	[X]
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	[ ]	[ ]	[ ]	[X]

Discussion

In 2020, EMWD served an estimated retail population of 603,950 through approximately 155,561 single family, multi-family, and other commercial, industrial, institutional, landscape, and irrigation accounts. EMWD's service area is currently 40 percent built out, making it one of the few regions in Southern California that will see significant population growth in the coming decades. Ultimate demand estimates indicate that before EMWD reaches build out, the population will more than double compared to the current size. As planned for in the EMWD 2020 Urban Water Management Plan (UWMP), EMWD's retail service area population will increase to approximately 807,200 in 2045 (EMWD 2021).

a) No Impact

The proposed Project would not directly induce unplanned population growth because no new housing or permanent employment are proposed. The proposed Project involves

expansion of EMWD's water service infrastructure within its existing service area to improve operational efficiency and redundancy in EMWD's potable water system. Operation of the Project would supply existing and projected water demand and is consistent with planned growth anticipated in the 2020 UWMP. Inspection and repair, if necessary, of the proposed Project would be incorporated into EMWD's existing O&M activities; no new staff would be required to serve the Project. Therefore, the proposed Project would not directly or indirectly induce unplanned population growth and no impact would occur.

b) No Impact

Construction and operation of the Project would occur entirely within the existing Perris Boulevard roadway and staging would occur within vacant lots (and within the Perris Boulevard right-of-way if necessary). The Project would not displace existing people or houses or require the construction of replacement housing. For these reasons, no impact would occur.

Mitigation Measures: None required or recommended.

3.15 Public Services

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for	[ ]	[ ]	[ ]	[X]

any of the following public services:				
i) Fire protection?	[ ]	[ ]	[ ]	[X]
ii) Police protection?	[ ]	[ ]	[ ]	[X]
iii) Schools?	[ ]	[ ]	[ ]	[X]
iv) Parks?	[ ]	[ ]	[ ]	[X]
v) Other public facilities?	[ ]	[ ]	[ ]	[X]

Discussion

Fire Protection

The City of Moreno Valley provides fire protection and emergency services within the proposed Project area and is part of the California Department of Forestry and Fire Protection (Cal Fire)/Riverside County Fire Department's regional, integrated cooperative fire protection organization. The Moreno Valley Fire Department has seven fire stations that service the City. Station 2 – Sunnymead is located at 24935 Hemlock Avenue, approximately 1.5 miles east of the Project area (City of Moreno Valley n.d.e).

Police Protection

The City of Moreno Valley contracts police services from the Riverside County Sheriff's Department to provide police protection and crime prevention services. The Riverside County Sheriff's Department is located at 22850 Calle San Juan de Los Lagos, approximately 5.5 miles southwest of the Project area. The department also uses satellite offices in strategic locations throughout the City (City of Moreno Valley n.d.f).

Schools

Children who reside in the City of Moreno Valley attend schools within two different school districts: the Moreno Valley Unified School District and the Val Verde Unified School District. The Moreno Valley Unified School District operates 39 preschools, elementary schools, middle schools, high schools, and alternative schools within Riverside County (MVUSD 2019). The Val Verde Unified School District operates 24 preschools, elementary schools, middle schools, high schools, and alternative schools within Riverside County (Val Verde Unified School District 2019). Sugar Hill Elementary School is located one-fifth mile west of the Project site and North Ridge Elementary School is located one-quarter mile south of the Project site.

Parks

The Moreno Valley Parks and Community Services Department manages and provides maintenance services for City parks and facilities and provides a wide range of recreation activities, programs and services throughout the community. There are 28 parks and recreational facilities operated by the Moreno Valley Parks and Community Services District (City of Moreno Valley, n.d.c). The City of Moreno Valley Parks, Recreation and Open Space Comprehensive Master Plan defines local park and recreation facilities as Community Parks, Neighborhood Parks, Mini Neighborhood Parks, Greenways and Specialty Parks (City of Moreno Valley 2010). Construction and operation of the proposed Project would occur entirely within the Perris Boulevard right of way and vacant parcels. There are no City parks within the Project area. Gateway Park located at 23975 Manzanita Avenue is the closest and located approximately one mile east of the Project site.

Libraries

There are two public libraries accessible to Moreno Valley residents. The main 16,000 square foot Moreno Valley Public Library is located at 25480 Alessandro Boulevard, on the northwest corner of Alessandro Boulevard and Kitching Street, approximately three miles from the Project site. A branch location is at the Moreno Valley Mall on 22500 Town Circle, three miles from the Project site (City of Moreno Valley n.d.b).

Hospitals

There are two hospitals located within Moreno Valley. The Riverside County Regional Medical Center (located at 26520 Cactus Avenue), approximately four miles from the Project site and the Kaiser Permanente Moreno Valley Medical Center (located at 27300 Iris Avenue), approximately five miles from the Project site (City of Moreno Valley 2021a).

a.i.)No Impact

The proposed Project would not construct new or physically alter existing fire protection facilities, nor would it substantially change response times or service ratios for fire protection services and facilities. Fire protection requirements during construction of the proposed Project would be short-term and the demands would be filled by the existing local work force. Existing fire protection services provided by the Riverside County Fire Department would be sufficient to provide fire or other emergency response to the proposed Project site. In addition, operation of the proposed Project would not directly or indirectly induce unplanned population growth that would require construction of new fire departments or expansion of fire protection facilities. No additional or increased fire protection facilities to maintain response times, service ratios, or other measures of

performance would be required. As a result, no impact on fire protection service facilities would occur.

a.ii.) No Impact

The proposed Project would not construct new or physically alter existing police protection facilities, nor would it substantially change response times or service ratios for police services and stations. In the event of an emergency, existing police services provided by the Riverside County Sheriff's Department would be sufficient. In addition, operation of the proposed Project would not directly or indirectly induce unplanned population growth that would require construction of a new or expansion of the existing police station to maintain response ratios, service ratios, or other measures of performance. As a result, no impact on police service facilities would occur.

a.iii.) No Impact

The proposed Project would not change existing demand on schools because the Project would serve existing and planned communities. Construction of the proposed Project does not include housing and operation would not result in new employment or population growth that would result in an influx of students. No new school facilities would need to be built to maintain class size ratios or other performance objectives. As a result, no impact on school facilities would occur.

a.iv.) No Impact

The City of Moreno Valley's General Plan policy 4.2.7 establishes the City level of service (LOS) standard as 3 acres of developed parkland for every 1,000 residents, which is the minimum parkland dedication allowed by the Quimby Act for residential subdivisions (City of Moreno Valley 2010). The proposed Project would not change existing demand on City parks or recreational facilities because the Project does not propose new housing units, nor would it directly or indirectly induce population or employment within the area. Construction and operation of the Project would not necessitate expansion of existing or construction of new parks or recreational facilities to maintain the City's existing LOS standard. Therefore, no impact on park facilities would occur.

a.v.) No Impact

The proposed Project would not change existing demand on other public facilities because the Project does not propose new housing units, nor would it directly or indirectly induce population or employment within the area. Construction and operation of the

Project would not necessitate expansion of existing or construction of new public facilities such as libraries or hospitals. Therefore, no impact on other public facilities would occur.

Mitigation Measures: None required or recommended.

3.16 Recreation

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	[ ]	[X]	[ ]	[ ]
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	[ ]	[ ]	[ ]	[X]

Discussion

According to the City of Moreno Valley Land Use Map, surrounding land uses within the Project area include residential, rural residential, open space, and public facilities. As discussed under *Section 3.15 Public Services*, there are no parks or recreational facilities within the Project area. There are also no regional, state, multi-use, or proposed trails within the Project area (City of Moreno Valley 2021d). However, Perris Boulevard from Sunnymead Ranch Parkway to Ironwood Avenue has a Class II Bike Lane (City of Moreno

Valley 2021a) and, as shown in Figure 2-4, Perris Boulevard between Sunnymead Ranch Parkway and Sunday Drive has sidewalks with mature landscaping.

a) Less than Significant with Mitigation Incorporated

The proposed Project would serve existing and planned communities. The proposed Project does not include residential housing and would not induce permanent employment or population growth that would permanently increase the use of the parks and recreational facilities. Although construction of the proposed Project within the Perris Boulevard right-of-way may require temporary closures of roadways, bicycle lanes, and sidewalks, potential impacts related to these closures would be minimized through the implementation of a Traffic Control Plan, as described in **Mitigation Measure TRA-1**. Implementation would ensure potential temporary impacts related to closures of pedestrian and bicycle access routes are less than significant. In addition, bicycle lanes and sidewalks that would be temporarily impacted would be restored upon the completion of construction. The Project would not increase the use of existing parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. Therefore, the proposed Project would have no impact.

b) No Impact

Implementation of the proposed Project would not require construction or expansion of recreational facilities which could have an adverse physical impact on the environment. As a result, no impact would occur.

Mitigation Measures:

See **TRA-1: Traffic Control and Detour Plan.** To mitigate possible impacts to recreational facilities, including bicycle lanes and pedestrian pathways, during construction, EMWD shall implement **Mitigation Measure TRA-1**. The proposed Project's recreation impacts would be less than significant with mitigation incorporated.

3.17 Transportation

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

Discussion

Local access within the Project area is provided by Perris Boulevard, Heacock Street, Sunnymead Ranch Parkway, and Manzanita Avenue. The Riverside County Transportation Commission owns a commuter rail line parallel to I-215 (roughly four miles west of the Project site), which provides commuter rail service for the region and a low volume of freight trains. The City of Moreno Valley has designated truck routes that run north-south on Heacock Street to Reche Vista Drive, and east-west on Ironwood Avenue in the vicinity of the Project (City of Moreno Valley Transportation Engineering Division. 2019). Public transportation in the Project area consists of bus service provided by the RTA. Bus route 18 services Sunnymead Ranch Parkway, Perris Boulevard, and Manzanita Avenue in the Project vicinity (RTA 2021). As discussed under *Section 3.16 Recreation*, Perris Boulevard

from Sunnymead Ranch Parkway to Ironwood Avenue is classified as a Class II Bike Lane (City of Moreno Valley 2021a).

The City of Moreno Valley General Plan identifies acceptable Level of Service (LOS) standards for roadways in the City, while the City of Moreno Valley General Plan Draft Circulation Element (City of Moreno Valley 2021a) establishes goals, objectives, and policies for transportation in the City. As identified in the General Plan, the LOS C is the acceptable level of service in the Project vicinity, while LOS D is acceptable at intersections during peak hours. The Draft Circulation Element uses Vehicle Miles Traveled (VMT), in combination with LOS, to reduce GHGs and improve circulation.

The City of Moreno Valley Transportation Engineering Division requires that the traffic and circulation impacts of proposed development projects be analyzed through the preparation of a traffic impact analysis prepared in conformance with Transportation Engineering Division requirements. The Traffic Impact Analysis Preparation Guide (City of Moreno Valley Transportation Engineering Division 2020) identifies the required contents and methodology, including thresholds for when the traffic impact analysis must include a level of service analysis, as required by the City of Moreno Valley General Plan, and/or a VMT impact analysis, as required by CEQA. Certain projects, because of their size, nature, or location, are exempt from producing a level of service analysis. Generally, these projects are local serving or generate less than 100 peak hour trips. Likewise, some project and activities are exempt from producing a VMT analysis. Similar to the level of service exemptions, these projects are generally local serving or generate less than 400 daily vehicle trips, exclusive of any existing daily vehicle trips generated by the site. The presumption for the exemptions is that activities associated with these conditions typically do not impact traffic significantly once distributed to the local roadway network (City of Moreno Valley Transportation Engineering Division 2020).

The City of Moreno Valley draft Climate Action Plan identifies a number of measures to reduce GHG emissions through transportation to schools, Transportation Demand Management strategies and programs, transit service, and electric vehicle infrastructure (City of Moreno Valley 2021c). Regional strategies incorporated into the draft Climate Action Plan include the SCAG Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal; SCAG 2021).

On September 3, 2020, the SCAG adopted Connect SoCal, SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy. The plan is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The plan details how the region will address its transportation and land use challenges and opportunities in order to achieve its regional emissions standards

and GHG reduction targets. The Connect SoCal plan represents the vision for Southern California's future, including policies, strategies, and projects for advancing the region's mobility, economy, and sustainability through 2040 (SCAG 2021).

The City of Moreno Valley Local Hazard Mitigation Plan (City of Moreno Valley 2017) assesses risk to the City and its residents of various natural and man-made hazards, and sets goals to mitigate or eliminate that risk. The plan includes a map of emergency evacuation routes; however, this map is not publicly available.

a) Less than Significant with Mitigation Incorporated

Project construction is estimated to last 12 months. Construction would take place during daytime hours in accordance with the City of Moreno Valley Municipal Code. No construction activities are planned during nighttime hours (7:00 p.m. to 7:00 a.m.). Additional details on the construction schedule can be found in *Section 2.5 Proposed Project Description*.

Construction-related conflict with the circulation system would be temporary. Potential circulation-related impacts associated with pipeline construction would move along the pipeline alignment over the 12-month construction period and disturbed areas would be restored to pre-construction condition. As discussed in the next Section, 3.17b, Project construction would not result in a considerable increase in vehicle trips or VMT. Project construction would require approximately 43 round-trip worker trips per day and an average of approximately 33 round-trip hauling trips per day during the busiest phase of construction (pipeline trenching, installation, and paving). The City (City of Moreno Valley Transportation Engineering Division 2020) considers projects that generate less than 100 trips do not affect LOS significantly; thus, the Project would not produce a significant impact to the LOS of roadways in the Project area. Therefore, Project construction would not conflict with transportation-related policies outlined in the City of Moreno Valley Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment.

Operation of the proposed Project would not conflict with regional transportation plans or the City of Moreno Valley General Plan because below-ground pipelines would not have a permanent impact on circulation. Above-ground appurtenances would be designed according to EMWD standard specifications such that they would not impact circulation. Inspection of the above ground appurtenances and exercise of the valves would be incorporated into EMWD's existing O&M activities. The proposed Project's long-term impacts on the circulation system would therefore be less than significant.

Although construction impacts would be temporary and have a limited footprint, construction of the proposed Project may require temporary closures of roadways, bicycle lanes, and sidewalks. Potential impacts related to these closures would be minimized through the implementation of a Traffic Control Plan and Detour Plan, as described in **Mitigation Measure TRA-1**, which would ensure that appropriate traffic controls are implemented and potential traffic impacts related to these closures are less than significant.

b) Less than Significant Impact

CEQA Guidelines Section 15064.3, subdivision (b) outlines criteria for analyzing transportation impacts in terms of VMT for land use projects and transportation projects. VMT refers to the amount and distance of automobile travel attributable to a project. According to the Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018), the term "automobile" refers to on-road passenger vehicles, specifically cars and light-duty trucks. In the case of the proposed Project, worker trips would be conducted in cars and light-duty trucks. Vendor and hauling trips would be conducted in medium- or heavy-duty trucks and are therefore excluded from the estimation of VMT. Environmental impacts associated with the use of medium- and heavy-duty truck trips are addressed in the Air Quality, Energy, and Greenhouse Gas sections of this document.

Construction of the proposed Project would involve temporary trips associated with workers, delivery of construction supplies and equipment, and hauling materials to and from the site. These trips would be temporary, occurring during the 12-month construction period. During the busiest phase of construction - pipeline trenching, installation, and paving - Project construction would require approximately 43 round-trip worker trips per day, each 14.7 miles, for a total daily VMT of 633. Worker trip details were based on CalEEMod default assumptions. CalEEMod estimates the number of construction workers by multiplying the number of pieces of construction equipment by 1.25. CalEEMod estimates the worker trip length using values provided by each air district. According to OPR Technical Advisory on Evaluating Transportation Impacts in CEQA, projects that generate fewer than 110 trips per day may be assumed to cause a less-than-significant transportation impact (OPR 2018). The City of Moreno Valley considers projects that generate fewer than 400 trips per day to have less-than-significant VMT impacts (City of Moreno Valley Transportation Engineering Division 2020). Therefore, construction of the Project would not result in a considerable increase in VMT. Operation of the proposed Project is expected to require worker trips for inspection and testing of the pipeline, valves, hydrants, and other appurtenances. These trips would be incorporated into EMWD's existing O&M program and would not increase VMT in the Project area.

Therefore, the Project would be consistent with CEQA Guidelines Section 15064.3, subdivision (b) and the impact would be less than significant.

c) Less than Significant Impact

The Project would not construct new roadways or introduce vehicles that are incompatible with existing roads; existing roadways would be restored to their prior condition once construction is complete. Therefore, after construction, the Project would not create roadway hazards.

Project construction would temporarily increase transportation hazards in the Project area because it would require incompatible uses (i.e., use of heavy construction equipment) and ingress/egress to temporary staging areas from existing roadways. The Traffic Control Plan, described in *Section 2.7 Environmental Commitments,* would be required prior to the issuance of an encroachment permit from the City of Moreno Valley and would include measures to ensure that vehicle ingress and egress from construction sites and the staging area(s) and use of heavy construction equipment in the Project area occur safely. With the Traffic Control Plan, the impacts from the proposed Project would be less than significant.

d) Less than Significant Impact

Construction of the proposed Project may require lane closures along the pipeline alignment and would generate trips associated with construction (worker travel and delivery of materials and equipment). Lane closures have the potential to hinder access for emergency vehicles. Traffic control measures implemented during Project construction would require that emergency crews be able to access sites and surrounding areas. The contractor would coordinate to ensure that emergency responders are informed of construction locations. Traffic control measures would also require that the contractor make a reasonable effort to preserve access to business and properties during construction. In order to prevent Project construction from interfering with emergency responders, a Traffic Control Plan (see *Section 2.7 Environmental Commitments*) would be implemented. Thus, impacts would be reduced to less than significant.

Mitigation Measures:

To mitigate possible impacts to circulation during construction, EMWD shall implement **Mitigation Measure TRA-1**. The proposed Project's traffic impacts would be less than significant with mitigation incorporated.

TRA-1: Traffic Control and Detour Plan. Prior to Project construction, EMWD shall require its construction contractor to implement a Traffic Control and Detour Plan, to be approved by the EMWD construction inspector. The Traffic Control and Detour Plan shall, at minimum:

- Identify staging locations to be used during construction;
- Identify safe ingress and egress points from staging areas;
- Identify potential road closures;
- Establish haul routes for construction-related vehicle traffic;
- Include a Detour Plan that identifies alternative safe routes to maintain pedestrian and bicyclist safety during construction; and
- Include provisions for traffic control measures such as barricades, warning signs, cones, lights, and flag persons, to allow safe circulation of vehicle, bicycle, pedestrian, and emergency response traffic.

The Traffic Control and Detour Plan shall be reviewed and approved by EMWD's project manager and the construction inspector prior to Project construction. EMWD's construction inspector shall also provide the construction schedule and Traffic Control Plan to the City of Moreno Valley for review to ensure that construction of the proposed Project does not conflict with other construction projects that may be occurring simultaneously in the Project vicinity.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is				

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

Discussion

An *Archaeological Survey Report* was prepared for the proposed Project in February 2022 (SWCA 2022). In December 2021, a cultural resources records search of the CHRIS was conducted at the EIC at the University of California, Riverside to identify any previously recorded cultural resources and cultural resources studies in and within a 1-mile radius of the proposed Project area. *Section 3.5, Cultural Resources,* provides a summary of the search results, which concluded that no known tribal cultural resources were previously recorded within the proposed Project area. On December 21, 2021 a pedestrian field survey was conducted to identify cultural resources that may be present along the

proposed transmission pipeline alignment and in the four potential staging areas. No tribal cultural resources were discovered during the field survey.

Results of a Sacred Lands File search from the Native American Heritage Commission, as well as contact information of interested parties, were received in February 2021. The results indicated that the SLF search failed to indicate the presence of Native American cultural resources in the immediate Project area and also included a list of Native American individuals/organizations who may have knowledge of cultural resources within the proposed Project area. Letters were emailed on April 12, 2021 to each group or individual on the NAHC contact list and follow up telephone calls or letters were sent on May 14, 2021. As of May 14, 2021, 10 responses had been received. A summary of each response received is as follows:

- Jill McCormick of the Fort Yuma Quechan Tribe responded that they do not wish to comment on the project.
- Cheryl Madrigal of the Rincon Band of Luiseño Indians requested a copy of the archaeological records search and recommended reaching out to Tribes closer to the project area.
- Ryan Nordness of the San Manuel Band of Mission Indians responded that the project is not located near any known cultural resources.
- Joseph Ontiveros of the Soboba Band of Luiseño Indians responded that they were interested and requested that the original letter be forwarded to Jessica Valdez, their Cultural Resources Coordinator.
- Jeff Grubbe of the Agua Caliente Band of Cahuilla Indians (ACBCI) responded that the project is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area. Therefore, the ACBCI Tribal Historic Preservation Officer requests a cultural resources inventory, a copy of the records search, and copies of the cultural report.
- Mario Castellano of the Los Coyotes Band of Cahuilla and Cupeno Indians responded that he recalled the project coming up in conversations and that if a reply has not yet been received, the Tribe probably has no objections.
- Kay (no last name provided) of the Ramona Band of Cahuilla responded that if no response had yet been received from John (Gomez), chances are they had no comments.

- Mark Cochrane of the Serrano Nation of Mission Indians requested that he and his brother Wayne Walker be notified via email if any cultural resources are discovered during construction and excavation.
- A telephone call to the Santa Rosa Band of Cahuilla Indians received a response that they have no knowledge of the site, and they were planning on responding to the (outreach) email with a similar response.
- An unidentified contact at the Augustine Band of Cahuilla Mission Indians requested that the (outreach) letter be forwarded to J. Kirksey.

Assembly Bill (AB) 52 Consultation

AB 52 establishes a formal consultation process between the lead agency, EMWD, and all California Native American Tribes within the area regarding tribal cultural resource evaluation. AB 52 mandates that the lead agency must provide formal written notification to the designated contact of traditionally and culturally affiliated California Native American tribes that have previously requested notice. Native American tribes are notified early in the project review phase by written notification that includes a brief description of the proposed project, location, and the lead agency's contact information. The Tribal contact then has 30 days to request project-specific consultation pursuant to this section (Public Resources Code §21080.1).

As a part of the consultation pursuant Public Resources Code §21080.3.1(b), both parties may suggest mitigation measures (Public Resources Code §21082.3) that can avoid or substantially lessen potential significant impacts to tribal cultural resources or provide alternatives that would avoid significant impacts to a tribal cultural resource. The California Native American tribe may request consultation on mitigation measures, alternatives to the project, or significant effects. The consultation may also include discussion on the environmental review, the significance of tribal cultural resources, the significance of the project's impact on the tribal cultural resources, project alternatives, or the measures planned to preserve or mitigate impacts on resources. Consultation shall end when either: 1) both parties agree on the mitigation measures to avoid or mitigate significant effects on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

Per AB 52, EMWD initiated consultation with Native 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 June 17, 2021, EMWD sent consultation notification letters to Native Tribes on the District's Master List pursuant to the requirements of AB 52 pertaining to government-to government consultation. Table 3-13

summarizes the District's consultation efforts. To date, EMWD has conducted consultation with three federally recognized Native Tribes: The Soboba Band of Luiseño Indians (Soboba), Rincon Band of Luiseño Indians (Rincon), and Pechanga Band of Luiseño Indians (Pechanga). An additional three Native Tribes were contacted but declined consultation or did not respond, as noted in Table 3-13.

Table 3-13: Native Tribal Consultation Summary

Tribe	Individual Contacted	Date Letter Mailed	Response Received	Consultation Held
Soboba	Joe Ontiveros	June 16, 2021	August 9, 2021	August 26, 2021
Pechanga	Ebru Ozdil	June 16, 2021	June 21, 2021	September 27, 2021
Rincon	Destiny Colocho	June 16, 2021	June 30, 2021	August 19, 2021
Agua Caliente	Katie Croft	June 16, 2021	No Response	N/A
San Manuel	Jessica Mauck	June 16, 2021	Declined	N/A
Morongo	Travis Armstrong	June 16, 2021	No Response	N/A

During consultation meetings, the responding Tribes highlighted their concerns for the general area noting that it is within Traditional Use Areas and is considered sensitive as there are existing sites in the surrounding areas. Each responding Tribe provided recommendations with regards to mitigation. All responding Tribes expressed concern with potential unearthing of unknown artifacts while grading the selected site. Each responding Tribe recommended tribal monitoring consistent with those measures used in prior CEQA analysis conducted by EMWD to mitigate the potential for uncovering of unknown buried artifacts.

Based on the cultural sensitivity of the area, tribal cultural resources may potentially be present within the Project's proposed footprint. Therefore, the Project may have the potential to affect tribal cultural resources during ground-disturbing activities, such as trenching.

a) Less than Significant Impact with Mitigation Incorporated

The *Archaeological Survey Report* determined there are no known tribal cultural resources within the proposed Project area. Based on the results of the SLF and CHRIS records search, the field survey, archival research, and historical imagery review, the possibility of encountering intact surface tribal cultural resources low. However, the Native American information solicitation and AB 52 process identified at least four Tribes, the Agua Caliente Band of Cahuilla Indians, the Soboba Band of Luiseño Indians, the Rincon Band of Luiseño Indians, and the Pechanga Band of Luiseño Indians, that may be traditionally affiliated with the proposed Project area.

No tribal cultural resources have been previously recorded within the proposed Project area. Although one previously recorded resource, P-33-001063, a bedrock milling site, was identified by the records search near one of the potential staging areas, the field survey confirmed this resource is outside of the potential staging area and no impacts to P-33-001063 would occur from construction of the proposed Project. Although there are no surface indicators of cultural resources within the Project area, there is always the potential for ground disturbing activities to encounter previously unknown tribal cultural resources. **Mitigation Measures CUL-1** through **CUL-7** would therefore be implemented. **Mitigation Measure CUL-1** requires EMWD and the Consulting Tribe(s) to develop a Cultural Resource Treatment Monitoring Agreement. **Mitigation Measure CUL-2** requires a Cultural Resources Monitoring Plan be prepared by a qualified archaeologist in consultation with the Consulting Tribe(s) prior to any grading activities and that the Cultural Resources Monitoring Plan be discussed at a pre-construction meeting with EMWD staff, the contractor, and appropriate subcontractors. **Mitigation Measure CUL-3** requires a qualified archaeological monitor and a Consulting Tribe(s) monitor be present for ground-disturbing activities associated with the Project. Both the project archaeologist and Tribal Monitor(s) will make a determination as to the areas with a potential for encountering cultural material, and both the archaeologist and the Tribal Monitor(s) shall have the authority to stop and redirect grading activities to evaluate the nature and significance of any cultural resources discovered within the Project limits. **Mitigation Measure CUL-4** requires all artifacts discovered at the development site shall be inventoried and analyzed by the project archaeologist and Tribal Monitor(s) and a monitoring report be prepared. **Mitigation Measure CUL-5** establishes procedures to be carried out in the event of an inadvertent discovery of Native American cultural resources. **Mitigation Measure CUL-6** requires the site of any reburial of culturally sensitive resources not be disclosed and not be governed by public disclosure requirements of the California Public Records Act. **Mitigation Measure CUL-7** requires Public Resources Code Section 5097.98 and California Health and Safety Code Section 7050.5 be followed if Native American human remains are encountered.

With the implementation of **Mitigation Measures CUL-1** through **CUL-7** impacts to tribal cultural resources would be less than significant.

Mitigation Measures: Refer to **Mitigation Measures CUL-1** through **CUL-7** in *Section 3.5 Cultural Resources*.

3.19 Utilities and Service Systems

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

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

Discussion

Water Supply

EMWD is the primary water purveyor in Moreno Valley and provides potable water, recycled water, and wastewater services for the proposed Project area. The majority of EMWD's supply is imported from MWD via the State Water Project and the Colorado River Aqueduct for potable and non-potable use and groundwater recharge. Groundwater is also pumped from the Hemet/San Jacinto and West San Jacinto areas of the San Jacinto Groundwater Basin to offset imported water supplies. Groundwater in portions of the West San Jacinto Basin is high in salinity and requires desalination treatment in one of two EMWD desalination plants before potable use (EMWD 2021).

Wastewater and Recycled Water

EMWD provides wastewater collection, treatment, and recycled water services in the proposed Project area. EMWD currently treats approximately 46 million gallons per day (mgd) of wastewater at its four active regional water reclamation facilities (RWRF) in San Jacinto Valley, Temecula Valley, Perris Valley, and Moreno Valley (EMWD n.d.b). In 2021 the Moreno Valley RWRF, which is the RWRF closest to the Project area, typically treats an average of 11 mgd and has a current capacity of 16 mgd (EMWD 2021).

EMWD owns, operates, and maintains a recycled water system in conjunction with the RWRFs. The Moreno Valley RWRF is located at 17140 Kitching Street, approximately 7 miles south of the proposed Project area. Recycled water is used extensively in EMWD's service area and EMWD regularly uses 100 percent of its recycled water supply for beneficial use. In 2019, 52 percent of the recycled water sold in the West San Jacinto Groundwater Management Area was used for agricultural use, and the remaining twenty percent was used for irrigated landscaping, golf courses, construction, and habitat creation (EMWD 2020). EMWD also produces recycled water supply for distribution to retail and wholesale customers.

Stormwater

The RCFCWCD is the regional flood management authority for the western part of Riverside County, including the City of Moreno Valley. The purpose of the RCFCWCD is to

identify flood hazards and problems, regulate floodplains and development, regulate drainage and development, construct and maintain flood control structures and facilities, and complete County watercourse and drainage planning. While RCFCWCD oversees all aspects of flood protection, they collaborate with local agencies on project development and implementation (City of Moreno Valley 2021b). RCFCWCD and the City of Moreno Valley jointly maintain the storm drain system (City of Moreno Valley 2021a). Stormwater quality and flooding potential in the proposed Project area are described in *Section 3.10 Hydrology and Water Quality*.

Solid Waste

Waste pickup within the proposed Project area is provided by Waste Management of Inland Empire and is primarily deposited in the Riverside County Waste Management District's Badlands Landfill (31125 Ironwood Avenue, Moreno Valley). However, trash haulers can also use other County landfills such as the Lamb Canyon Landfill (16411 Lamb Canyon Road, Beaumont) and El Sobrante Landfill (10910 Dawson Canyon Road, Corona).

Utilities

Electrical service in Moreno Valley can be supplied by Moreno Valley Utility or SCE (City of Moreno Valley 2021a). The proposed Project alignment is within the SCE service area (MVU 2018). Natural gas service for the proposed Project area is provided by the Southern California Gas Company (City of Moreno Valley 2021a).

a) Less than Significant Impact

The proposed Project would construct potable water pipelines, interconnections, and appurtenances. The Project would not require or result in the construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities beyond the expansion of EMWD's potable water delivery system included in the proposed Project to improve operational efficiency and redundancy. Construction of the Project would occur within the Perris Boulevard right of way and the roadway would be restored to pre-construction conditions, so no permanent change in stormwater drainage would occur. As discussed in *Section 3.14 Population and Housing*, the proposed Project would serve existing and planned communities and would not induce unplanned population or employment growth that would require or result in the construction of new or expanded water, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities. As explained in *Section 3.6 Energy*, operation of the proposed Project would not involve the consumption of electricity. Therefore, the Project would not result in the need to construct new electrical facilities. The environmental impacts of the proposed Project's water transmission pipeline

and associated above ground appurtenances and valves are evaluated throughout this IS/MND and are anticipated to all be mitigated to a less than significant level.

b) No Impact

The proposed Project involves expansion of EMWD's water service infrastructure within its existing service area to improve operational efficiency and redundancy. Construction of the proposed Project would require a minimal water supply for purposes such as dust control and concrete mixing. Existing sources would be sufficient and no new or expanded supply would be required for construction. Operation of the proposed Project would not induce unplanned population growth that would require or result in the construction of new water treatment facilities or the expansion of existing facilities. The supply would accommodate existing water demand and is consistent with planned growth anticipated in the 2020 UWMP. No impact related to sufficient water supplies would occur.

c) No Impact

As discussed under Impact b) above, construction and operation of the proposed Project would not directly or indirectly induce unplanned population or employment growth that would require or result in the construction of a new or expanded wastewater collection infrastructure or treatment services. Therefore, there would be no impacts.

d) Less than Significant Impact

Construction of the proposed Project would generate soil and asphalt waste during installation of underground pipelines. While excavated soil would be reused onsite as backfill to the extent feasible, it is estimated that approximately 9,017 cy of material would need to be exported and disposed at a permitted landfill in accordance with local and state solid waste disposal requirements. There are two state regulations that set standards for solid waste generation: AB 939 mandates 50 percent diversion of solid waste; and AB 341 mandates recycling programs to help reduce GHG emissions. Waste material may be hauled to the Badlands Sanitary Landfill located at 31125 Ironwood Ave, Moreno Valley, approximately 7.5 miles east of the Project site. The Badlands Sanitary Landfill has a remaining capacity of 15,748,799 cy (CalRecycle n.d). Therefore, the existing landfill would have a total permitted area to accommodate construction debris from the proposed Project. Excess construction debris is reasonably anticipated to be within the permitted capacity of the local landfill after onsite backfill of excavated soil combined with adherence to mandatory construction waste diversion requirements.

Operation of the proposed Project is not anticipated to generate solid waste in the long-term. Therefore, solid waste generation would be limited to temporary construction

activities and would not affect available solid waste disposal capacity in the region. Therefore, impacts related to local infrastructure capacity would be less than significant.

e) No Impact

Construction and operation of the proposed Project would comply with local, State, and federal regulations related to solid waste. While operation of the proposed Project is not anticipated to generate a long-term solid waste, construction activities would create debris such as excavated soil and asphalt. Excavated soil would be backfilled to the extent possible, but construction contractor(s) would be required to dispose of excess construction debris in accordance with existing reduction statutes (AB 939 and AB 341) and regulations. These regulations would determine the landfill to be used for disposal of construction debris, mandatory 50 percent diversion of solid waste (AB 939), and mandatory recycling programs to reduce GHG emissions (AB 341). Therefore, impacts related to compliance with local, state, and federal reduction statues and regulations related to solid waste would be less than significant.

Mitigation Measures: None required or recommended.

3.20 Wildfire

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	[ ]	[ ]	[X]	[ ]
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose	[ ]	[ ]	[X]	[ ]

	project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	[ ]	[ ]	[X]	[ ]
d)	Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	[ ]	[ ]	[ ]	[X]

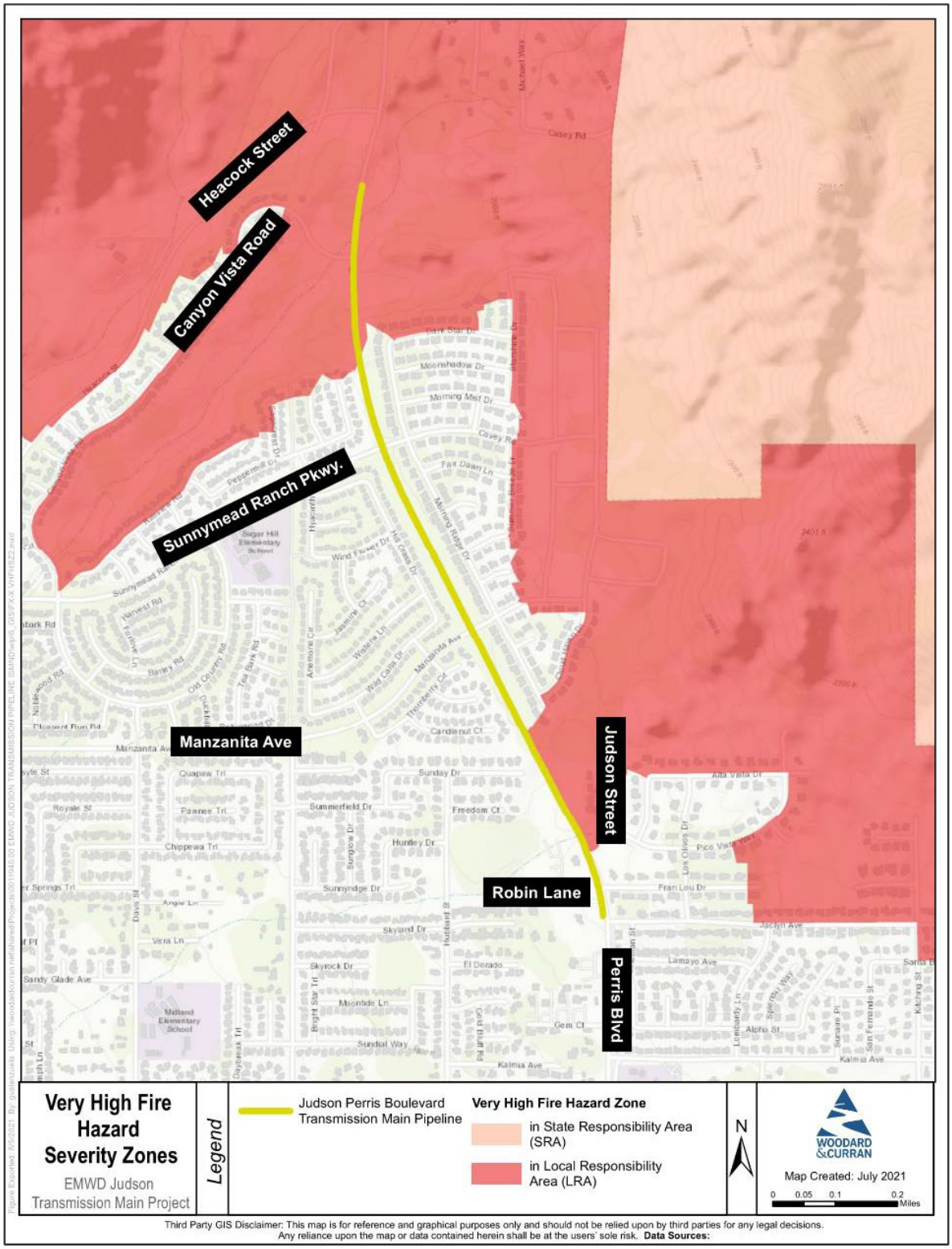
Discussion

The California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP) assesses the amount and extent of California's forests and rangelands, analyzes their conditions and identifies alternative management and policy guidelines (https://frap.fire.ca.gov/). FRAP maps are used to identify areas of VHFHSZ within LRAs. The proposed Project is located within the Moreno Valley LRA and is partially located in a designated VHFHSZ as shown in Figure 3-2 (FRAP 2009). There are two fire stations located in the immediate vicinity of the Project. Both the Moreno Valley Fire Department and the Riverside County Fire/ Moreno Valley Station #48 are located slightly over one mile from the Project site, within an approximately three minute drive.

The City of Moreno Valley EOP (City of Moreno Valley 2019a) provides guidance for the City's response to extraordinary emergency situations associated with natural, man-made and technological disasters. The Office of Emergency Management is responsible for working and communicating with local community stakeholders to practice, review, revise, and update plans to reflect changes in technology, personnel, and procedures.

The City of Moreno Valley LHMP is designed to reduce or eliminate long-term natural or man-made hazard risks and communicate the City's corresponding mitigation strategy. Components of the plan include hazard identification, asset inventory, risk analysis, loss estimation, and a mitigation strategy to reduce the effects of hazards in the city. Figure 12-2 of the LHMP shows the Moreno Valley Evacuation Routes Map 2016; however, it is not available to the public.

Figure 3-2: Very High Fire Hazard Severity Zones



a) Less than Significant Impact

Construction activities would be located within the Perris Boulevard roadway right of way. Potential staging areas would be located in vacant land, within existing EMWD property and, if necessary, within the Perris Boulevard right-of-way. Sidewalk and lane closures during construction would temporarily restrict access for use by emergency response vehicles or emergency evacuations and could impair implementation of or physically interfere with the City's adopted EOP. Prior to the issuance of an encroachment permit from the City of Moreno Valley, EMWD would develop a Traffic Control Plan, which would reduce conflict between Project construction activities and the EOP and LHMP by requiring coordination with emergency services (police, fire, and others); requiring identification of roadways and access points for emergency services; and requiring that disruptions to or closures of these locations be minimized. Impacts of construction on the adopted emergency evacuation plan would be less than significant. Further consideration of the proposed construction activities and potential for roadway access and hazardous conditions can be found under *Section 3.17 Transportation*.

Operation of the proposed Project would not physically impair or otherwise interfere with adopted emergency response or evacuation plans in the Project area, as all ground surfaces of the existing Perris Boulevard right of way would be returned to pre-construction conditions after excavation and below-grade pipeline installation. The Project would not interfere with emergency evacuation plans. Operation would involve minimal truck trips for maintenance as needed. Impacts would be less than significant.

b) Less than Significant Impact

The proposed Project area is partially located within a designated VHFHSZ within the Moreno Valley LRA. Staging areas would be located on vacant land and, if necessary, within the Perris Boulevard right of way. Pipelines would be installed below grade on parcels that do not have steep slopes. The above-ground appurtenances would be constructed within the Perris Boulevard right of way, minimizing risk of fire hazards. The use of construction equipment that could potentially spark or otherwise ignite a fire during normal construction activities, does however, pose a risk of fire in a high or very high fire hazard severity zone. The implementation of EMWD's standard fire safety construction measures as specified in *Section 2.7 Environmental Commitments*, and equipping construction equipment with spark arrestors, per industry standards would ensure the Project would not exacerbate wildfire risks and thereby expose people in the Project area to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts would be less than significant.

c) Less than Significant Impact

The proposed Project area is located within and adjacent to a VHFHSZ within the Moreno Valley LRA. The proposed Project would not involve the installation or maintenance of infrastructure that is typically associated with fire risk, such as roads, fuel breaks, emergency water sources, or power lines. The proposed Project would rely on existing roads for access during construction and O&M. Installation of the transmission main, interconnections, and appurtenances would occur within the existing roadway right of way. Once construction is complete, the project would not introduce people or structures to wildfire risk. The Project would have a less than significant impact.

d) No Impact

The proposed Project would be located within the Perris Boulevard roadway right of way. The potential construction staging areas would be located in vacant land or within existing EMWD property and, if necessary, within the Perris Boulevard right of way. Pipelines would be installed below-grade and overlying ground surface would be restored to pre-construction conditions, resulting in no permanent impact on site drainage. The proposed Project would have a less than significant impact related to stormwater runoff (see *Section 3.10 Hydrology and Water Quality*). No impact would occur.

Mitigation Measures: None required or needed.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Does the Project:				
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to	[ ]	[X]	[ ]	[ ]

eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	[ ]	[ ]	[X]	[ ]
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	[ ]	[X]	[ ]	[ ]

Discussion

a) Less than Significant with Mitigation Incorporated

With the implementation of mitigation measures, the proposed Project would have a less than significant impact on the environment. Potential construction impacts on common avian species would be reduced to a less than significant level through the implementation of **Mitigation Measure BIO-1**. No cultural or archaeological resources were identified within the area that would be directly impacted by the Project activities; however, there is a potential for previously unknown cultural material to exist at Project sites. With the implementation of **Mitigation Measures CUL-1** through **CUL-7**, potentially significant impacts on cultural resources would be reduced to less than significant. Because there is High Potential for the surficial or subsurficial geologic units to preserve fossils at depths greater than five feet, **Mitigation Measures GEO-1** through **4** shall be implemented to ensure proper procedures are in place in the event of an

unanticipated fossil discovery and potential impacts on paleontological resources would be less than significant.

b) Less Than Significant

According to CEQA Guidelines Section 15130(b) there are two approaches to discussing cumulative project impacts: either the *List-of-Projects Method:* a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or the *Summary-of-Projections Method:* a summary of projections contained in an adopted general plan or related planning document or in a prior environmental document that has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency. EMWD is relying on the *List-of-Projects* method for purposes of this analysis. The Judson Transmission Main Project is being considered along with the Judson Potable Water Storage Tank and Transmission Pipeline Project, located on Judson Street, which would result in construction and operation of a 2.2-million-gallon potable water storage tank, a paved access road, a detention basin with approximately 0.26-MG capacity, other appurtenances to support tank operations, and an 18-inch-diameter transmission pipeline. The Judson Transmission Main Project is also being considered along with the Judson Distribution Pipeline Replacement project, which would replace approximately 600 feet of aging steel distribution main along Judson Street with 12-inch PVC to avoid future impact to residents on Judson Street. Although related due to their proximity and connectivity to the overall EMWD potable water distribution system, the Judson Potable Water Storage Tank Project and Judson Distribution Pipeline Replacement are stand-alone projects independent of the Judson Transmission Main.

Construction of these projects would occur at different times and sites far enough removed from each other that construction related cumulative effects such as fugitive dust and construction noise would be less than significant. Development would adhere to applicable rules and regulations related to dust suppression, traffic control, storm water control, handling/storage of hazardous materials, and regulations related to protections for plants/animals/waters of the State and U.S. Cumulative impacts in these areas are also considered less than significant. The only operational vehicle trips associated with the projects would be the infrequent monitoring/maintenance trips, which would result in an insignificant cumulative increase on area roadways separated in time and distance. Cumulative noise and air quality effects from these projects would also be less than significant due to their minimal contribution. Therefore, these projects are not expected to create impacts that are individually limited, but cumulatively considerable.

The proposed Project would not have impacts that are individually limited, but cumulatively considerable. The impacts of the proposed Project have been analyzed in accordance with the CEQA Guidelines; each topic has been found to have either no impact, a less than significant impact, or a less than significant impact with mitigation incorporated. The Project is of a limited scale, and, taken in sum with other projects in the area, would not produce cumulatively considerable impacts to the environment or human beings. Therefore, cumulative impacts of the proposed Project would be less than significant.

c) Less Than Significant with Mitigation Incorporated

The proposed Project may expose the community, including sensitive receptors, to noise from Project construction and operation. **Mitigation Measure NOI-1** would ensure that construction noise is reduced using BMPs. With these measures in place, the proposed Project would have a less than significant impact on human beings as a result of noise.

Although all existing applicable regulations would be followed by the Project, during construction, there is generally the potential for hazardous materials associated with typical construction activities to be released. **Mitigation Measure HAZ-1** would minimize the risk of hazardous material exposure through material use and accidents by requiring EMWD and its construction contractor to develop a Hazardous Materials Management and Spill Prevention and Control Plan to ensure project-specific contingencies are in place.

Construction impacts would be temporary and have a limited footprint, but construction may require temporary closures of roadways, bicycle lanes, and sidewalks. Potential impacts related to these closures would be minimized through the implementation of a Traffic Control Plan and Detour Plan, as described in **Mitigation Measure TRA-1**, which would ensure that appropriate traffic controls are implemented.

The impacts of the proposed Project have been analyzed in accordance with the CEQA Guidelines; each topic has been found to have either no impact, a less than significant impact, or a less than significant impact with mitigation incorporated. Therefore, with the implementation of the mitigation measures noted above, the proposed Project would not result in any environmental effects that would cause substantial adverse effects on human beings either directly or indirectly.

Mitigation Measures: See **Mitigation Measures BIO-1, CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, CUL-7, GEO-1, GEO-2, GEO-3, GEO-4, HAZ-1, NOI-1, TRA-1**.

4. REPORT PREPARATION

4.1 Report Authors

This report was prepared by EMWD, Woodard & Curran, and teaming partners. Staff from these agencies and companies that were involved include:

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