# Draft Initial Study and Mitigated Negative Declaration

## IXTP 7991 Replacement Project

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## ACRONYM LIST

| Acronym | Term |
|---|---|
| AB | Assembly Bill |
| ACBCI | Agua Caliente Band of Cahuilla Indians |
| APE | Area of Potential Effects |
| APN | Assessor's Parcel Number |
| BMP | Best Management Practice |
| CAAQS | California Ambient Air Quality Standards |
| CalEEMod | California Emissions Estimator Model |
| CARB | California Air Resources Board |
| CDOC | California Department of Conservation |
| CEQA | California Environmental Quality Act |
| CFR | Code of Federal Regulations |
| CGS | California Geological Survey |
| CNEL | Community Noise Equivalent Level |
| CO | Carbon monoxide |
| $CO_2$ | Carbon dioxide |
| CVAG | Coachella Valley Association of Governments |
| CVMSHCP/NCCP | Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan |
| CVWD | Coachella Valley Water District |
| DAC | Disadvantaged Community |

| | |
|---|---|
| dB | decibel |
| dBA | A-weighted decibel |
| DTSC | California Department of Toxic Substances Control |
| DWR | California Department of Water Resources |
| EA | Environmental Assessment |
| EIR | Environmental Impact Report |
| FEMA | Federal Emergency Management Agency |
| FHWA | Federal Highway Administration |
| FTA | Federal Transit Administration |
| GHG | Greenhouse Gas |
| GIS | Geographic Information System |
| gpm | gallons per minute |
| GWP | Global Warming Potential |
| IS | Initial Study |
| IXTP | Ion Exchange Treatment Plant |
| kWh | Kilowatt-hours |
| LRTP | Long Range Transportation Plan |
| LST | Localized Significance Threshold |
| MCL | Maximum contaminant level |
| MHI | median household income |
| $MTCO_2e$ | Metric Tons Carbon Dioxide Equivalent |
| MMRP | Mitigation Monitoring and Reporting Program |
| MND | Mitigated Negative Declaration |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NEPA | National Environmental Policy Act |
| NPDES | National Pollutant Discharge Elimination System |
| OSHA | Occupational Safety and Health Administration |
| PM | Particulate matter |
| PRC | Public Resources Code |
| RCTC | Riverside County Transportation Commission |
| RD | Rural development |
| ROG | Reactive organic gases |
| RWQCB | Regional Water Quality Control Board |
| SCADA | Supervisory Control and Data Acquisition |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| SDAC | Severely Disadvantaged Community |
| SSAB | Salton Sea Air Basin |
| $SO_2$ | sulfur dioxide |
| SWRCB | State Water Resources Control Board |
| SWPPP | Storm Water Pollution Prevention Plan |
| TAC | Toxic air contaminants |
| U.S. | United States |
| USDA | United States Department of Agriculture |
| U.S. EPA | United States Environmental Protection Agency |
| USGS | United States Geological Survey |
| VMT | vehicle miles traveled |

# 1. INTRODUCTION

## 1.1 Purpose of this Document

Coachella Valley Water District (CVWD) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental impacts related to implementation of the Ion Exchange Treatment Plant (IXTP) 7991 Replacement Project (the "proposed project"). The proposed project would replace the existing IXTP, which is currently out of service, with a new 2,000-gallons-per-minute (gpm) capacity adsorption treatment system, chemical systems, well pump, backup generator, and other components. The proposed project would enable CVWD to improve water supply reliability for the community of Mecca and the Bombay Beach Production Zone.

CVWD is the lead agency for the proposed project under the California Environmental Quality Act (CEQA). CVWD has prepared this IS to determine whether an Environmental Impact Report (EIR), Negative Declaration, or Mitigated Negative Declaration (MND) is needed. The IS evaluates the potential environmental consequences associated with the IXTP 7991 Replacement Project, and discloses 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.

Additionally, project grant/loan funding may come from the U.S. Department of Agriculture (USDA) Rural Development Program. Therefore, to support compliance with the federal environmental review requirements of the funding programs, this document incorporates information to meet the requirements of an Environmental Assessment (EA) under the National Environmental Policy Act (NEPA).

## 1.2 Scope of this Document

This IS/MND has been prepared in accordance with CEQA (as amended) (Public Resources Code [PRC] Sections 21000 et. seq.); the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Sections 15000 et. seq.), as updated on December 28, 2018; and CVWD's Local CEQA Guidelines (2020).

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 makes reference to either the CEQA Statute or State CEQA Guidelines. This IS/MND includes all of the contents required by CEQA, which include 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. The environmental resource areas analyzed in this document include:

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

The proposed project may receive funding under the USDA Rural Development Program. Therefore, the proposed project is also subject to compliance with NEPA, Title 7 Code of Federal Regulations (CFR) Part 1970, *Environmental Policies and Procedures*, and USDA's *Guide for Preparing Environmental Assessments Under §1907-C for Projects with a CEQA Document*.

This document has been formatted to include applicable items per USDA guidance documents; where necessary, supplemental discussion of NEPA topics follows the related CEQA topic (e.g., a section including NEPA discussion of aesthetics follows the CEQA discussion of aesthetics). USDA's *Guide for Preparing Environmental Assessments Under §1907-C for Projects with a CEQA Document* is included as Attachment A and describes where the required information can be found in this IS/MND

## 1.3 Environmental Review

In accordance with CEQA Guidelines Sections 15072-15073, CVWD will provide a Notice Of Intent To Adopt A Mitigated Negative Declaration to the public, responsible agencies, trustee agencies, and the county clerk of each county within which the proposed project is located, sufficiently prior to adoption by the lead agency (CVWD Board of Directors) to allow the public and agencies a public review period provided under Section 15105.

CVWD will mail the Notice Of Intent To Adopt A Mitigated Negative Declaration to the last known name and address of all organizations and individuals who have previously requested such notice in writing and shall also give notice of intent to adopt a mitigated negative declaration by publication in The Desert Sun newspaper.

CVWD is also circulating this IS/MND to the State Clearinghouse for their distribution to State agencies. In addition, CVWD is circulating the Notice of Intent to Adopt a Mitigated Negative Declaration to the Riverside County Clerk, responsible agencies, and interested entities.

The 30-day public review period is from August 20, 2021 through September 20, 2021.

A copy of this IS/MND is available for review at: www.cvwd.org

Please submit your written comments to CVWD by 5 p.m. on September 20, addressed to:

William Patterson, Environmental Supervisor, Coachella Valley Water District
75515 Hovley Lane East
Palm Desert, CA 92211

Following the 30-day public review period, CVWD will evaluate any written comments received on the Draft IS/MND and incorporate any substantial evidence that the proposed project could have a significant impact on the environment into the Final IS/MND.

CVWD will also prepare a Mitigation Monitoring and Reporting Program (MMRP) to be adopted along with the Final IS/MND.

CVWD's Board of Directors will consider adopting the Final IS/MND and MMRP in compliance with CEQA at a publicly noticed meeting. CVWD Board of Director meetings are held the second and fourth Tuesday of each month.

### 1.4 Impact Terminology

The level of significance for each environmental resource area listed above in *Section 1.2 Scope of this Document* 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

CVWD provides drinking water service to a region covering approximately 1,000 square miles, mostly within the Coachella Valley in Riverside County but also extending into northern Imperial and northeastern San Diego counties. CVWD's drinking water supply consists solely of groundwater, augmented by replenishment of imported water from the State Water Project.

CVWD owns three Ion Exchange Treatment Plants (IXTPs) which are used to treat high arsenic levels in the groundwater. In the past, IXTP 7991 treated groundwater from Well 7991, located south of Mecca, but the IXTP is in need of replacement and therefore the well and treatment system are currently offline. The IXTP 7991 Replacement Project (proposed project) would replace the existing 1,000-gpm ion exchange treatment system with a new 2,000-gpm capacity adsorption treatment system to allow for the continued use of Well 7991 and to supply water to the Mecca and Bombay Beach Production Zones (which include the communities of Mecca, North Shore, Bombay Beach, and numerous other small communities).

The Project consists of replacing the existing IXTP 7991 with a new adsorption treatment system, new sulfuric acid and caustic soda systems within new buildings on site, backwash pumps and piping, pre-filters, backwash tank, and demolition of the existing IXTP. The project would be constructed within the existing IXTP 7991 site, which is owned by CVWD and would not require purchase of additional land. The new treatment system would be connected to an existing pipeline in Hammond Road which would likely necessitate work within county road right-of-way, requiring an encroachment permit.

## 2.2 Project Purpose and Need

Groundwater in the Mecca area requires treatment to reduce arsenic levels before the groundwater can be incorporated into the potable water supply system. IXTP 7991 treats water from Well 7991, a 900-foot-deep well drilled in 1971. IXTP 7991 and Well 7991 are located in the Indio subbasin of the Coachella Valley Groundwater Basin, where groundwater arsenic concentration averages approximately 20 parts per billion (ppb). This exceeds the State's Maximum Contaminant Level (MCL) of 10 ppb. IXTP 7991 is in poor condition and can no longer provide arsenic treatment; because of this, Well 7991 is currently offline. This has resulted in poor water supply reliability in the Mecca and Bombay Beach Production.

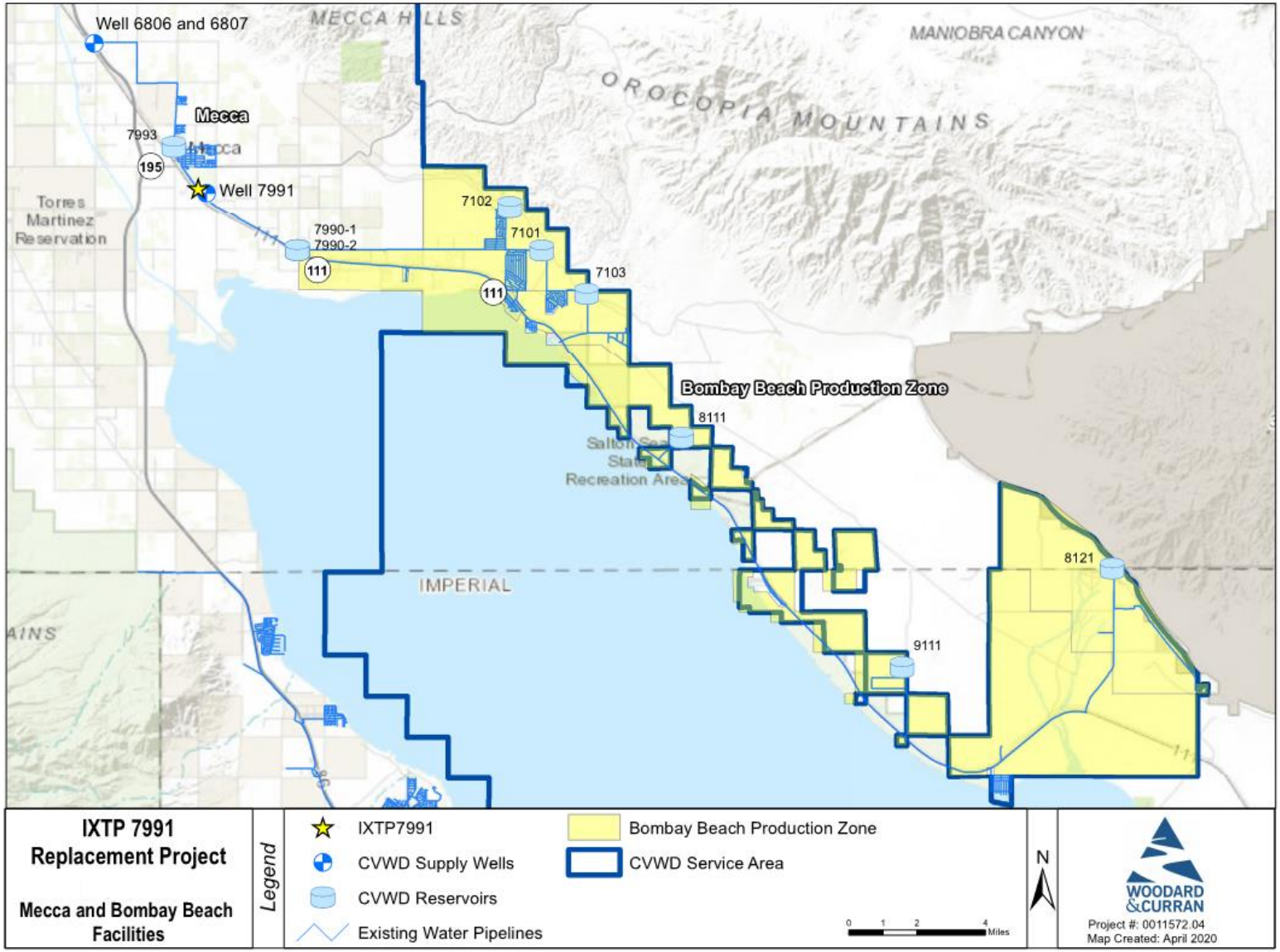
Historically, the Mecca and Bombay Beach Production Zones were supplied water from IXTP 7991 (which treats groundwater from Well 7991) and from IXTP 6806 (which treats groundwater from Wells 6806 and 6807). However, because the existing IXTP 7991 is no longer operable, CVWD has had to supply the Mecca and Bombay Beach Production Zones with water from IXTP 6806 only. IXTP 6806 is located to the north of Mecca, and water is conveyed to Mecca through a single 18-inch pipeline, which is at capacity and provides no redundancy. The proposed project would allow Well 7991 to come back

online. Well 7991 would provide an additional source of domestic water supply to the Mecca and Bombay Beach Production Zones that would assist with peak summer flows, provide emergency water supply reliability to these areas, and provide system redundancy. The Mecca and Bombay Beach Production Zones supply facilities are shown in **Figure 2-1**.

CVWD is seeking federal grant/loan funding for the proposed project to reduce the financial burden on its ratepayers; as portions of CVWD's service area are considered to be disadvantaged communities. CVWD is seeking funding through USDA's Rural Development "Water and Waste Disposal Grants to Alleviate Health Risks on Tribal Lands and Colonias" (Colonia Grant) program.

USDA, Rural Development is a mission area within the USDA that includes three federal agencies – Rural Business-Cooperative Service, Rural Housing Service, and Rural Utilities Service. The agencies have in excess of 50 programs that provide financial assistance and a variety of technical and educational assistance to eligible rural and tribal populations, eligible communities, individuals, cooperatives, and other entities with a goal of improving the quality of life, sustainability, infrastructure, economic opportunity, development, and security in rural America. Financial assistance can include direct loans, guaranteed loans, and grants in order to accomplish program objectives.

**Figure 2-1: Mecca and Bombay Beach Production Zones Supply Facilities**



## 2.3 Environmental Setting

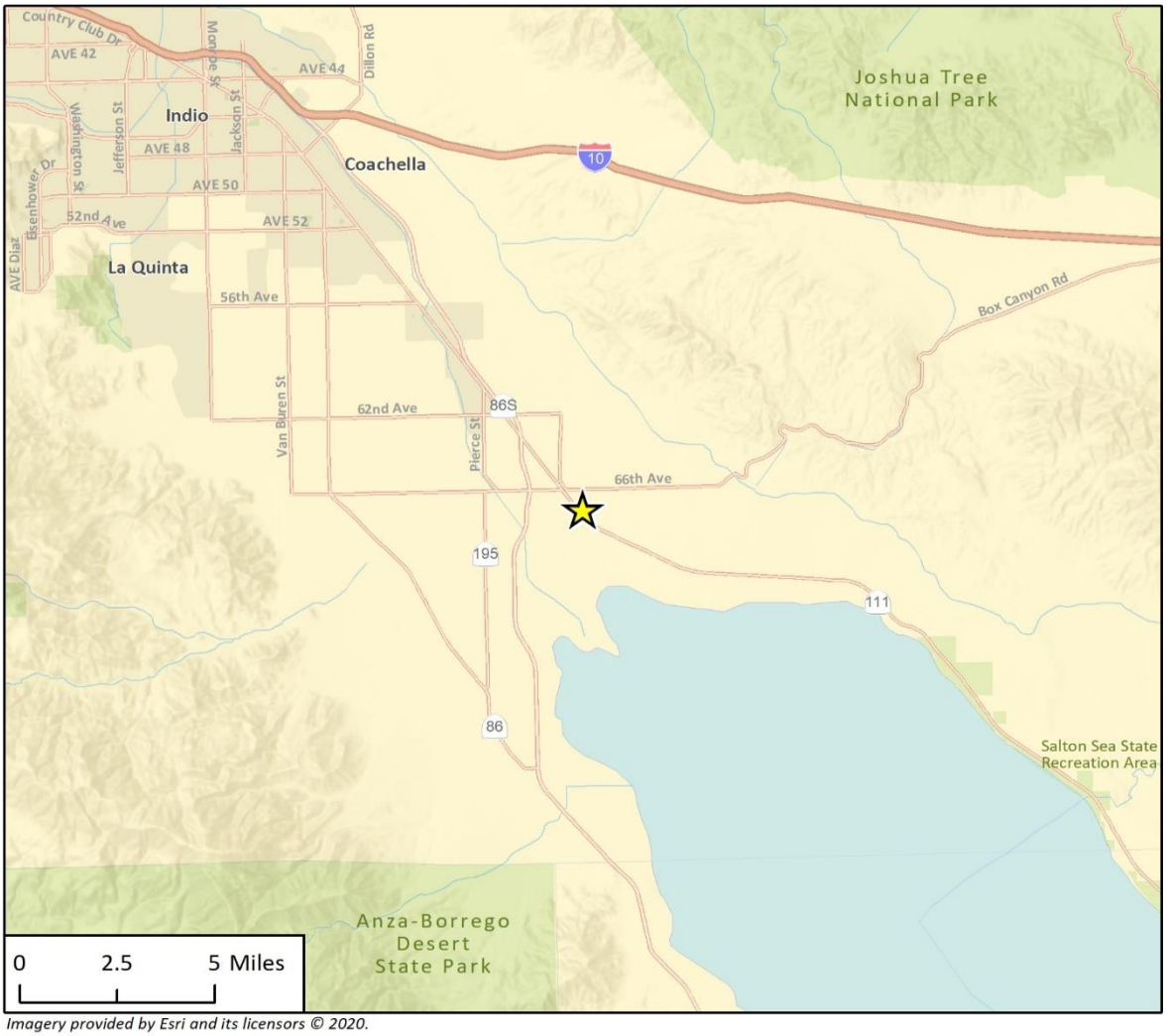
The project site is located in the Coachella Valley of central Riverside County within the United States Geological Survey (USGS) Mecca, California 7.5-minute topographic quadrangle (APN 727-272-008, Section 17, Township 7S Range 9E, San Bernardino Meridian). The site is addressed 67050 Hammond Road, Mecca, California, 92254, located east of State Route 111 and approximately 0.5 miles south of the unincorporated community of Mecca (**Figure 2-2**, **Figure 2-3**). Land uses surrounding the project site are primarily ruderal lots and agriculture. The project site is zoned as mixed use. Surrounding land use designations include agricultural and mixed use, as well as areas designated for controlled development.

The nearest residences to the proposed project site are located approximately 2,000 feet west of the proposed project site at the Saint Anthony Mobile Home Park (between State Route 111 and Lincoln Street) and approximately 2,200 feet east of the proposed project site (along Johnson Street). The Boys and Girls Club of Coachella Valley is approximately 0.5 miles northwest of the proposed project site, along Avenue 66. There are no schools, hospitals, or other sensitive land uses within 0.5 miles of the proposed project site.

The project site is located in the eastern portion of the Coachella Valley at the northern end of the Salton Sea. Physically, the eastern Coachella Valley is bounded by the Santa Rosa Mountains to the west, and the Mecca Hills and the edge of Joshua Tree National Park to the northeast. The proposed project site is located in the Coachella Valley region of the Salton Sea Air Basin, and is in the Whitewater River Watershed. The site is within the lower Colorado Desert, which is a subdivision of the Sonoran Desert Region geographic subdivision of California.

The project site is located within the *Coachella Valley Multiple Species Habitat Conservation Plan* (CVMSHCP/NCCP) area, but outside any CVMSHCP/NCCP conservation areas. The Coachella Valley Stormwater Channel and Delta CVMSHCP/NCCP Conservation Area is located approximately 0.6 mile west of the project site on the opposite side of State Route 111.

## Figure 2-2: Regional Project Location

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Project Location

N

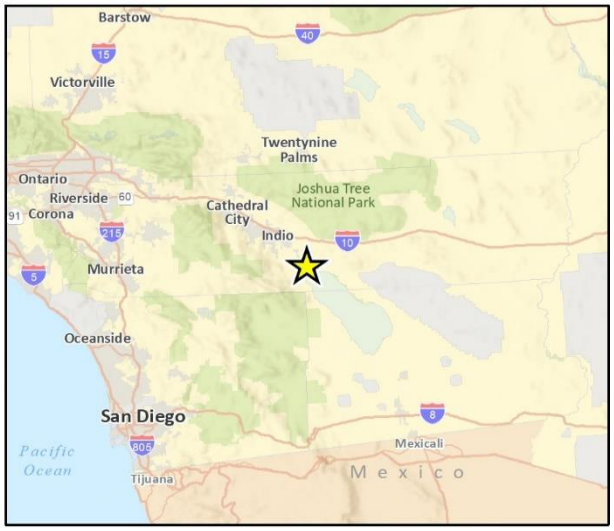

**Figure 2-3: Project Location**

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## 2.4 Existing Facilities and Conditions

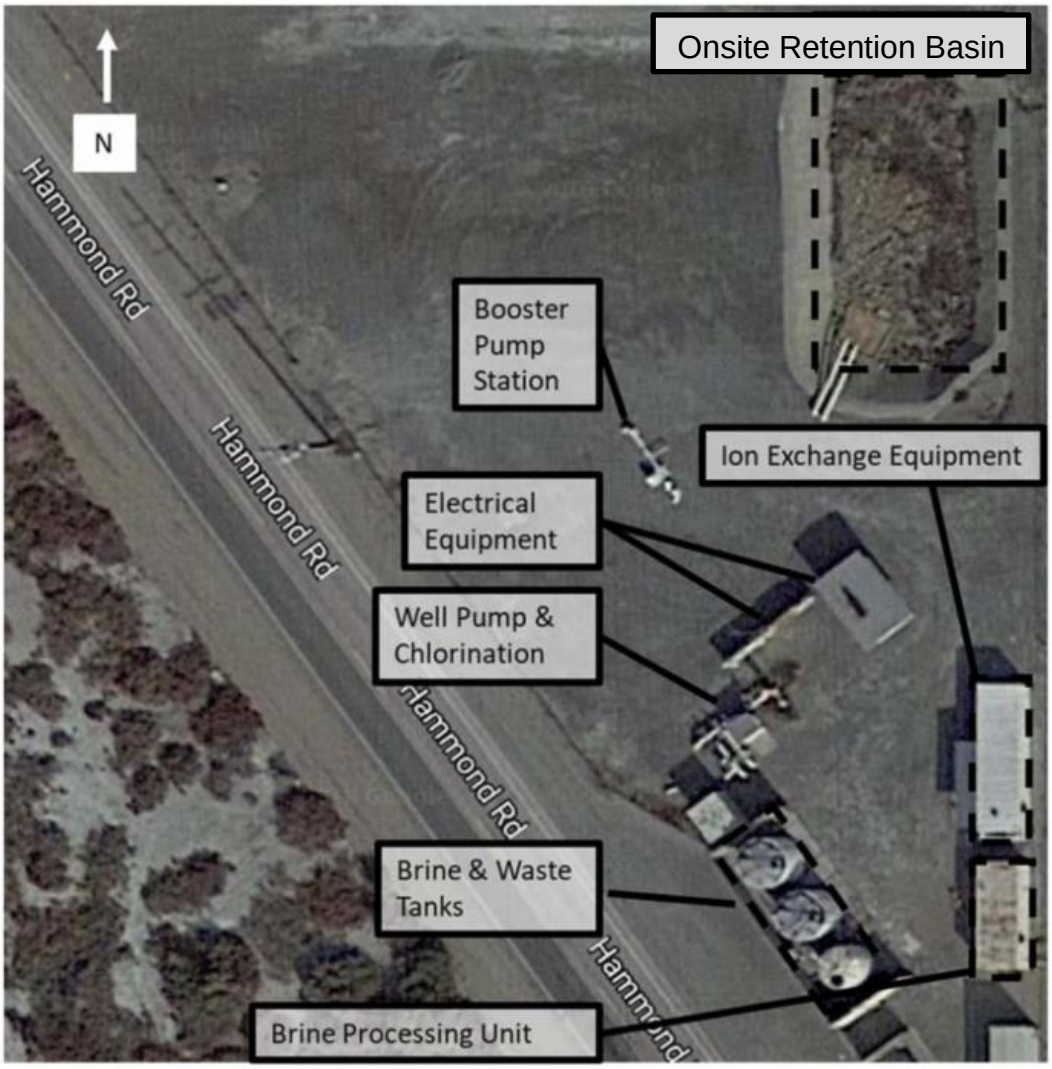
The existing facilities involved in the proposed project are Well 7991 and IXTP 7991; detailed descriptions of existing facilities are provided below.

Well 7991 was drilled in 1971 and extends to a maximum depth of 900 feet below ground surface. The well was in need of repair due to well production steadily decreasing over time (most recently measured at approximately 950 gpm), cracks and damage to the concrete sanitary seal, and poor condition of portions of the casing. Well 7991 was rehabilitated in 2019 and these deficiencies were corrected; however the well is currently not-in-service and has not been in service for several years.

IXTP 7991 was constructed as a temporary facility and began operation in 2005 with an expected useful life of 5-10 years. The facility has reached the end of its anticipated lifespan, and has been out of service since late 2017 because it is unreliable, in deteriorated condition, and in need of major rehabilitation to restore normal operation. The site of the 7991 facilities contains the rehabilitated well pump, a bypass and pressure reducing station, the arsenic treatment system, and on-site retention basin (**Figure 2-4**). The treatment system consisted of bag filters, ion exchange vessels (within an enclosed container), a salt tank, a brine treatment system, chemical feed and storage systems, and waste storage tanks. IXTP 7991 had a treatment capacity of 1,000 gpm and served to remove arsenic to levels below 10 ppb. The treatment system equipment was installed in 2004 and is now in very poor, unreliable condition. There are signs of imminent ion exchange vessel failure. IXTP 7991 tank concrete foundations are crumbling, containers are corroding, and the facility lacks a media strainer required by California State Water Resources Control Board, Division of Drinking Water. The facility is at the end of its useful life.

An existing 12-inch asbestos cement pipeline carries treated water from IXTP 7991 to Reservoir 7990. This pipeline capacity is sufficient to carry flows from the IXTP 7991 Replacement Project.

**Figure 2-4: Existing IXTP 7991 Site and Facilities**




## 2.5 Project Description

The IXTP 7991 Replacement Project would replace the existing 1,000-gpm ion exchange treatment system with a new 2,000 gpm capacity treatment system to allow for the full use of the rehabilitated Well 7991, provide operating efficiency, and ensure adequate supply of water to the Mecca and Bombay Beach Production Zones (which include the communities of Mecca, North Shore, Bombay Beach, and other small communities). The proposed project would include the following elements:

- The existing ion exchange treatment system would be replaced with a new 2,000-gpm capacity adsorption treatment system (granular ferric hydroxide or granular ferric oxide adsorption media).
- The existing sulfuric acid and caustic soda systems would be replaced with new systems within a new building on site. New chemical feed systems are anticipated

to consist of sulfuric acid and sodium hydroxide for pH adjustment. The existing calcium hypochlorite system (which was recently replaced) would be reused.

- The existing electrical panels for power and existing programmable logic control for instrumentation and control would be replaced.
- A new, permanent well pump with capacity of 1,500 gpm would be installed in Well 7991, which would have an associated hydropneumatic/surge tank.
- Installation of an emergency standby diesel generator.
- The new treatment system would be connected to the existing asbestos cement pipe water main in Hammond Road which connects to Reservoir 7990.
- The existing ion exchange system, electrical equipment, chlorination system, brine and waste tanks, and brine processing unit would be demolished.

The new ion exchange treatment system would be an adsorption system, which would include two pressurized vessels operated in parallel and filled with media, bypass piping around the vessels for partial flow treatment, backwash pumps and piping, pre-filters, two backwash tanks, and recirculation system and chemical systems. The vessels would be 8 feet in diameter; the backwash tanks would each be 12 feet in diameter and 15 feet tall, with a potential canopy structure for an overall height of approximately 18 feet. The process flow diagram for the adsorption treatment system is shown in **Figure 2-5**. The treatment system would achieve a final effluent arsenic goal of 80 percent of the MCL, or 8.0 µg/L.

The general facility layout incorporating an adsorption treatment system is shown in **Figure 2-6**. The existing ion exchange units, electrical equipment, chlorination system, brine and waste tanks, and brine processing unit would be demolished. The piping would be abandoned in place, and the connections to the main water line from the pump would be cut and capped. The treatment system would be connected to the existing asbestos cement pipe water main in Hammond Road. All accessways would be crushed rock. Although final design is not yet complete, the project would be designed so that stormwater is contained on site; this would avoid the need for an industrial discharge permit. Stormwater would drain away from the well and discharge to the existing onsite retention basin.

### 2.5.1 Chemical Systems

The existing chemical systems on site include chlorine tablet feeder for oxidation of the arsenic and caustic soda and sodium hydroxide injection for pH adjustment; these systems would be replaced as part of the project. The new chemical systems would be housed in a new building on site, with an estimated footprint of 1,000 square feet and a height of up to 20 feet. The new chemical system would include sulfuric acid and sodium hydroxide to adjust pH, with the existing calcium hypochlorite system used for disinfectant residual. New chemical tanks would either be double contained (i.e., a tank with double walls) or would be constructed with secondary containment (i.e., a berm that would contain a leak or spill from the tank). Piping would also have either double walls or

secondary containment. The chemical systems building would also house chemical storage, as well as electrical, controls, and backup generator.

### 2.5.2 Well Pump

A new well pump would be installed in Well 7991, which would be capable of producing 1,500 gpm[1] and would provide sufficient pressure to both Mecca and Reservoir 7990. Flow control would be achieved using automated flow control/system isolation valves working in conjunction with the new well pump. A hydropneumatics/surge tank would be installed with the well pump.

### 2.5.3 Piping and Materials

For below grade water service piping, zinc coated ductile iron with polywrap would be used to prevent corrosion. Above grade, welded, coated steel would be used. Chemical system piping would be double contained and consistent with standard industry chemical compatibility requirements. It is anticipated that chlorinated polyvinyl chloride piping, or other materials compatible with caustic and/or acidic chemicals would be used. Piping would be double-contained or have secondary containment as needed.

### 2.5.4 Diesel Backup Power

A new 300-kW diesel generator would be installed, which would provide backup power to the 2,000 gpm capacity treatment system. This backup generator would be housed in the chemical systems building.

### 2.5.5 Electrical Service

Existing electrical panels would be replaced with new panels, which would be located in the chemical systems building. Electrical service to the site would continue to be provided by Imperial Irrigation District; the current service lines are adequate to meet the needs of the proposed project. It is anticipated that a new pad-mounted transformer would be installed to replace the existing pole-mount transformer on site.

### 2.5.6 Instrumentation and Control

The existing instrumentation would be replaced. The instrumentation for the adsorption system would consist of flow meters, pH analyzer, chlorine analyzer, pressure gauges, and differential pressure transmitters. The pressure transmitters would be SCADA[2]

[1] Given the physical constraints at Well 7991, the maximum pumping capacity with a new pump installed as part of this project, would be up to approximately 1,500 gpm.
[2] Supervisory control and data acquisition (SCADA) is a system of software and hardware elements that allows control of water treatment processes locally or at remote locations

compatible and send signals back to the existing system. The chemical structures would have intrusion alarms that would also be connected to the SCADA system. Instrumentation would be located in the chemical systems building.

## 2.6 Project Construction

The proposed project would be constructed on the existing CVWD-owned IXTP 7991 site. Typical project construction activities are described below:

- **Site Preparation** – This phase of construction would involve removal of existing structures. The existing ion exchange units, brine waste storage tank, and salt brine saturation storage tanks would be demolished and hauled off-site to a recycling facility or landfill. No vegetation exists at the site, so no vegetation removal would be required. Construction survey would define the limits of the new facilities.

- **Earthwork** – After removal of necessary structures, grading would begin. It is expected that the contractor would attempt to balance cut and fill quantities within the construction area to the extent feasible. Most excavated materials would be used on site. Following rough grading, additional excavation would bring the site to final grade and allow for preparation for underground piping and structural slabs. It is anticipated that over-excavation and use of engineered fill may be required. Depending on location, excavations could require dewatering of shallow groundwater.

- **Yard Piping** – All of the yard piping for the on-site well, IXTP water treatment facility, pump station, and hydro tank would be installed, pressure tested, and disinfected. Drainage piping and electrical duct bank conduits would be laid along with the electrical grounding. The yard piping would be followed by the construction of foundations and structural improvement.

- **Structural Improvements** – Prior to pouring concrete, structural forms, rebar, and conduits would be installed for the treatment system, backwash tanks, and other components as necessary. After the concrete is poured, it would be finished and cured before the forms are removed. New structures such as the chemical systems building would be erected. Following structural improvements, the yard piping would be connected to the mechanical components such as the well pump and manifold, IXTP vessels, chemical treatment equipment, emergency generator, and electrical equipment.

- **Electrical/Instrumentation** – After new structures are complete, electrical equipment (e.g., electrical panels, lighting) would be installed. Instrumentation required for the adsorption system (including flow meter, pH analyzer, pressure gauges, and differential pressure transmitters) would be installed. The emergency generator would be installed. The existing pole transformer would be replaced with a pad-mounted transformer. The contractor would pull new wires and land these wires in their corresponding panels and electrical gear.

After all terminations are complete, the treatment plant instrumentation equipment would be calibrated, programmed, and tested individually prior to the startup and testing phase.

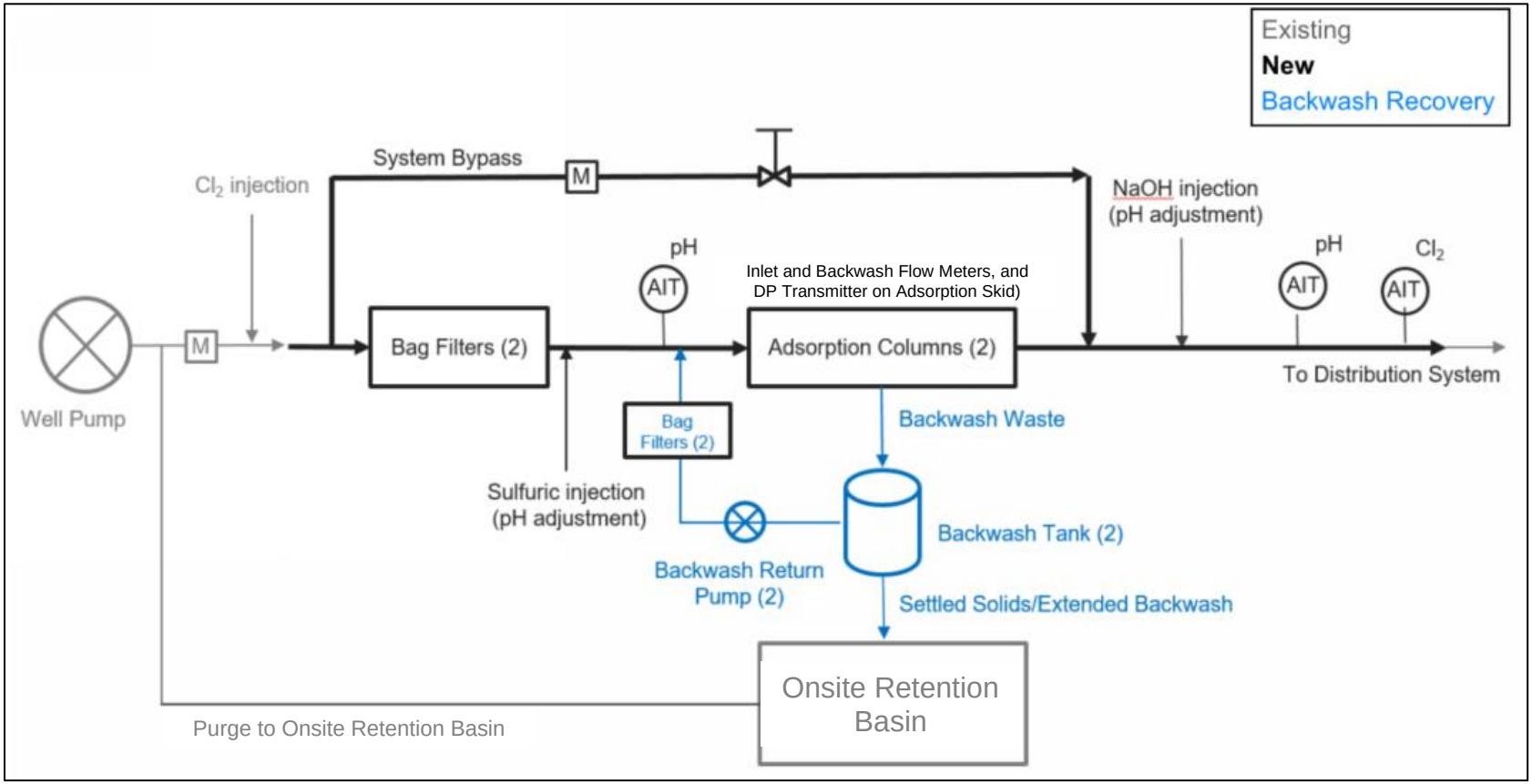
- **Startup and Testing** – Ion exchange treatment system personnel (i.e., engineers, inspectors, operators, maintenance crews, and instrumentation specialists) and the contractor would work with the equipment vendors to understand how each piece of equipment would operate and function. Under supervision, the construction contractor would start up and test the equipment on site to guarantee that pumps, motors, valves, monitoring and communication equipment are functional, meet design standards and all necessary regulatory performance criteria.

It is anticipated that heavy construction equipment that would be used for the proposed project may include the following: grader, bulldozer, backhoe, tractor, loader, concrete/industrial saw, forklift, crane, paver, roller, cement and mortar mixers, water trucks, and dump trucks.

The project's maximum area of disturbance during the construction period is anticipated to encompass the entire IXTP 7991 site, a total area of approximately one acre. This footprint would account for construction activities as well as staging. The maximum excavation depth at the site would be 15 feet. Limited construction work would occur in Hammond Road to connect the treatment system to the existing water main. The connection would be made via open trench construction and may require a single lane closure on Hammond Road; in total, work on Hammond Road would be completed in approximately 3-5 days.

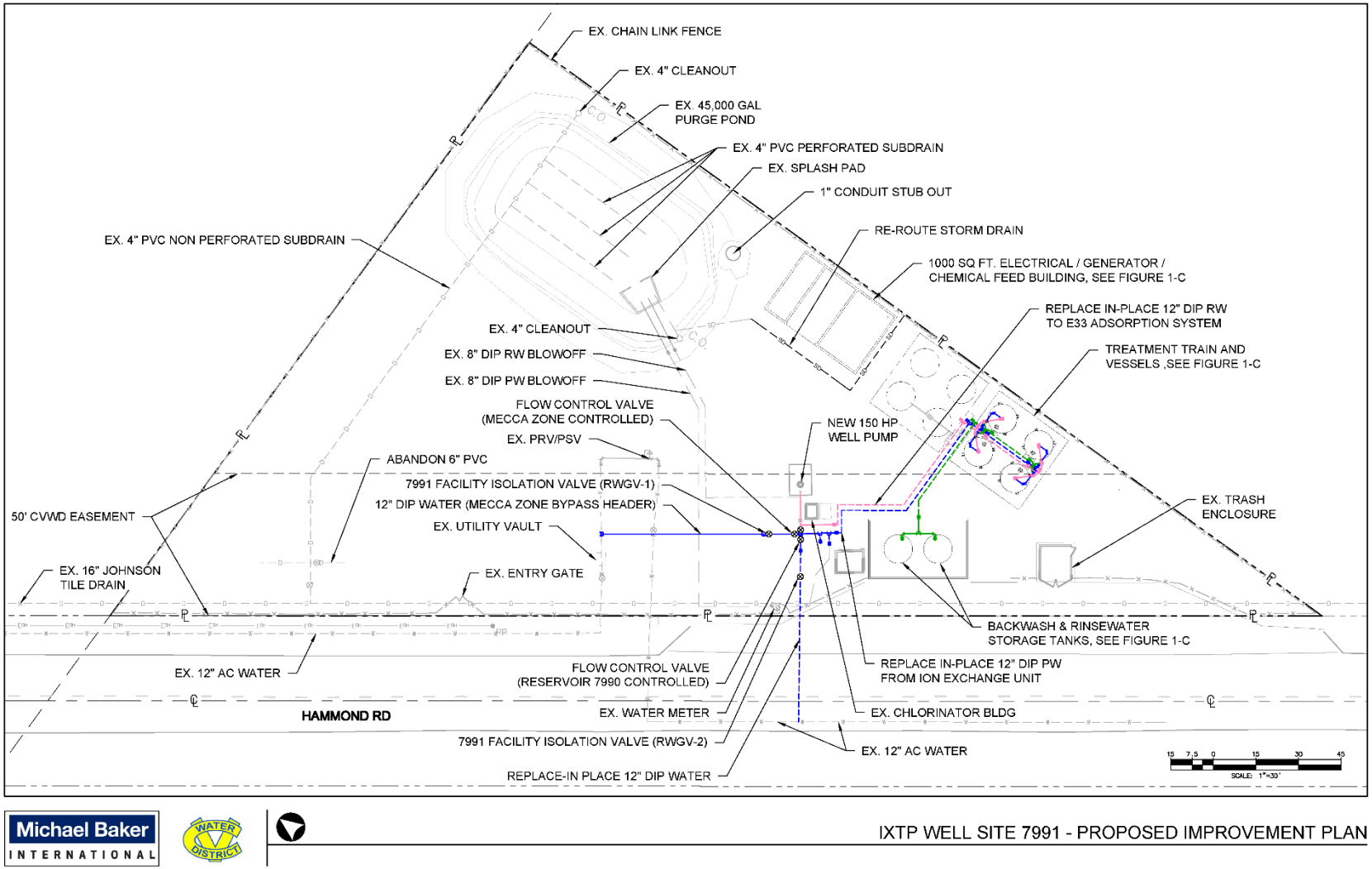
Construction of the proposed project is anticipated to require 12 months. During construction, the proposed project would generate vehicle trips associated with construction crews and materials deliveries. The site would be accessed via Hammond Road, which is located along the southwest edge of the site. Daily vehicle trips would vary depending on construction activities at any given time. Construction would generate a maximum of 13 round-trip trips per day, including up to nine round trips for construction crews, up to three round trips for hauling of export and/or import material, and one round trip for delivery of materials. Construction would involve up to 500 cubic yards of material export and 500 cubic yards of material import, assuming as much native fill is reused for backfill as possible.

**Figure 2-5: Well 7991 Adsorption Process Schematic**




Source: Stantec, 2018

**Figure 2-6: Proposed IXTP 7991 Replacement Project – Preliminary Site Layout**




Source: MBI 2021

## 2.7 Operation and Maintenance

CVWD would incorporate operation and maintenance of IXTP 7991 into its existing system operation activities. It is anticipated that operation of IXTP 7991 would require 2 visits per week by CVWD staff for routine inspection and maintenance activities.

Operational energy use for the new IXTP 7991 was estimated using historic energy use data from 2016 and 2017 provided by CVWD. Due to the system treatment capacity increase from 1,000 gpm to 2,000 gpm, energy use of the new system was conservatively estimated to be double that of the existing system. This would result in a net increase of 143,720 kilowatt-hours (kWh) per year associated with the proposed project.

Periodically, the adsorption media would need to be exchanged. Regular sampling of arsenic in the effluent would be conducted to ensure detection of breakthrough. Turnkey exchange service is provided by adsorption equipment vendors to come to the site, replace old media with fresh media, and dispose of the old media. The adsorption media would be changed before the media accumulates hazardous concentrations of regulated constituents. Therefore, the spent adsorption media would not become regulated hazardous waste. CVWD would use these services to exchange adsorption media as required (estimated to be necessary every 2-3 years).

During operation, the system would need to be backwashed periodically to maintain hydraulic distribution of flow through the media bed. The waste from the backwash cycles would be sent to the backwash waste tank and then returned into the influent flow so disposal of backwash waste water would not be required. Periodically, settled solids would build up in the backwash waste tank and would need to be removed, approximately every 5 years. Backwash and rinse water would be settled and returned back to the head of the treatment system through a bag filter system. The settled solids captured in the bag filter would not be regulated hazardous waste.

## 2.8 Standard Construction Practices

CVWD conducts the following standard practices during construction and would complete these as part of the IXTP 7991 Replacement Project:

- **Drainage / Erosion Control** – During construction, existing storm water facilities including catch basins, manholes, and ditches would be protected using erosion control measures. Design standards outlined in the *Riverside County Whitewater River Region Stormwater Quality Best Management Practice Design Handbook for Low Impact Development* (Riverside County Flood Control and Watershed Conservation District 2014) would be implemented by the construction contractor as applicable to the project site's stormwater drainage features. In addition, the project contractor would be required to obtain a Construction General Permit pursuant to the National Pollutant Discharge Elimination System (NPDES), which would require development of a construction Storm Water Pollution Prevention Plan (SWPPP) and implementation of best management practices (BMPs) to prevent polluted runoff from leaving the construction site.

- **Groundwater Dewatering** – The proposed project may involve excavation as deep as 15 feet below ground surface. If encountered at this depth, groundwater would be controlled using standard methods including stone sumps wrapped in filter fabric and dewatering basins or baffled tanks if required.
- **Traffic Controls** – Construction of the proposed project may require traffic lane closures. If closures would be necessary, traffic control requirements would require that emergency crews have access, as needed, and that the contractor coordinates the location of the work daily for routing of emergency vehicles. The contractor may be required to have a County-approved traffic control plan as a condition of receipt of applicable construction permits. Refer to **Mitigation Measure TRA-1 Traffic Control Plan.**
- **Air Quality / Dust Suppression** – The construction contractor would be required to comply with South Coast Air Quality Management District (SCAQMD) rules 403 and 403.1 to control dust during construction specific to the Coachella Valley. The contractor is required to have an approved Fugitive Dust Control Plan prior to grading or excavation. The contractor is required to comply with the California Air Resources Board's In-Use Off-Road Diesel-Fueled Fleets Regulations, which would 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, less fuel-efficient engines from the construction fleet. The treatment system would be connected to the existing asbestos cement water main in Hammond Road; this connection would be made in a manner which would prevent asbestos fiber from being released. CVWD and/or its contractor would comply with applicable requirements of SCAQMD Rule 1403 for asbestos demolition and removal.
- **Geotechnical Standards** – A design-phase geotechnical report has been prepared for the proposed project. The recommendations from the geotechnical report will be incorporated into the final design and construction of the proposed project.
- **Unanticipated Discovery of Archaeological Resources** – If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) would be contacted immediately to evaluate the find. If the discovery proves to be eligible for the National Register of Historic Places and/or California Register of Historical Resources, additional work such as data recovery excavation and Native American consultation may be warranted.
- **Unanticipated Discovery of Human Remains** – If human remains are found, regulations outlined in the State of California Health and Safety Code Section 7050.5 state no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the

Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant. The most likely descendant shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.

- **Construction Noise and Vibration** – CVWD would implement the following standard construction noise and vibration reduction measures to minimize the impacts of construction noise and vibration:
    - All equipment and trucks used by the Construction Contractor for project construction shall use the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) and be maintained in good operating condition to minimize construction noise impacts. All internal combustion engine-drive equipment shall be fitted with intake and exhaust mufflers which are in good condition.
    - During construction, the Construction Contractor shall prohibit unnecessary idling of internal combustion engines. In practice, this would mean turning off equipment if it would not be used for five or more minutes.

## 2.9 Permits

The permits listed in **Table 2-1** may be required for project construction:

**Table 2-1: Permits and Approvals**

| Agency | Permit or Approval |
|---|---|
| **Local** | |
| Riverside County | Grading Permit<br>Encroachment Permit (for work in Hammond Road, if necessary) |
| South Coast Air Quality Management District | Permit to Construct and Permit to Operate (for diesel backup generator)<br>Fugitive Dust Control Plan |
| **State** | |
| Regional Water Quality Control Board (RWQCB), Colorado River Region | Notice of Intent to obtain coverage under General Permit for Construction Discharges (dewatering/ test water; if required) |
| State Water Resources Control Board (SWRCB) Division of Drinking Water | Drinking Water Supply Permit Amendment |

# 3. ENVIRONMENTAL CHECKLIST FORM

1. **Project title:** Ion Exchange Treatment Plant (IXTP) 7991 Replacement Project

2. **Lead agency name and address:** Coachella Valley Water District
75515 Hovley Lane East
Palm Desert, CA 92211

3. **Contact person and phone number:** William Patterson
Environmental Supervisor
75515 Hovley Lane East
Palm Desert, CA 92211
(760) 398-2651 x2545

4. **Project location:** The proposed project is located in the Coachella Valley of central Riverside County within the United States Geological Survey (USGS) Mecca, California 7.5-minute topographic quadrangle (Section 17, Township 7S Range 9E, San Bernardino Meridian). The site is located east of State Route 111 and approximately 0.5 miles south of the community of Mecca, along Hammond Road. The proposed project site consists of one parcel, APN 727-272-008.

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

6. **General plan designations:** Mixed Use

7. **Zoning:** Mixed Use

8. **Description of project:** The IXTP 7991 Replacement Project would replace facilities that treat arsenic in groundwater pumped from CVWD's Well 7991. The project would replace the existing 1,000-gpm ion exchange treatment system with a new 2,000-gpm capacity treatment system. The project consists of replacing the existing IXTP 7991 with a new adsorption treatment system, sulfuric acid and caustic soda systems within a new building on site, backwash pumps and piping, pre-filters, backwash tank, well pump, diesel generator, and demolition of the existing IXTP.

9. **Surrounding land uses and setting:** Hammond Road borders the project site to the southwest. Union Pacific Railroad Tracks and State Route 111 are located west of Hammond Road. Surrounding land uses are as follows: North: agricultural land; light industrial, commercial retail, the community of Mecca; East: agricultural and mixed use lands; South: agricultural and mixed use lands, Salton Sea; and West: mixed use, agricultural, medium density residential, very low density residential, and rural residential lands.

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

- Local:
    - Riverside County – Grading Permit, Encroachment Permit, Hazardous Materials Handling, Tank Certification Report
    - SCAQMD – Fugitive Dust Control Plan; Permit to Construct and Permit to Operate
- State:
    - Colorado River RWQCB – Notice of Intent to obtain coverage under General Permit for Storm Water Discharges associated with Construction Discharges (dewatering/ test water, if required)
    - SWRCB Division of Drinking Water – Drinking Water Supply Permit Amendment
- Federal:
    - USDA – funding under the Rural Development Program

**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.?**

The Native American Heritage Commission identified 23 Native American contacts who may have knowledge of cultural resources of Native American origin at the project site. Letters were emailed to each of these groups on behalf of CVWD on May 8, 2020. Native American contacts who had not replied through May and June 2020 were contacted again. As of January 2020, six responses were received from this outreach effort, none requesting formal consultation.

On April 20, 2021, CVWD mailed *Notice of Opportunity to Consult* for formal Assembly Bill (AB) 52 consultation [letters] to the local Native American tribal governments that have previously requested to consult under AB 52.

To date, June 10, 2021, CVWD environmental staff have received one (1) written formal request for consultation from the Agua Caliente Band of Cahuilla Indians (ACBCI) Tribe dated May 10, 2021. CVWD has responded to this request and formally initiated AB 52 consultation via a phone call on May 27, 2021. On a secondary phone call on June 7, 2021, AB 52 consultation was concluded with the ACBCI Tribe and a copy of the Cultural Resources Assessment Report provided. Refer to *Section 3.18 Tribal Cultural Resources* for further discussion.

## ***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. With adherence to the mitigation program identified within this IS/MND, the potentially significant impacts would be reduced or minimized to less than significant.

| | | | | | |
|---|---|---|---|---|---|
| [ ] | Aesthetics | [ ] | Agriculture and Forestry Resources | [ ] | Air Quality |
| [ X ] | Biological Resources | [ X ] | Cultural Resources | [ ] | Energy |
| [ ] | Geology/Soils | [ ] | Greenhouse Gas Emissions | [ X ] | Hazards and Hazardous Materials |
| [ ] | Hydrology/Water Quality | [ ] | Land Use/Planning | [ ] | Mineral Resources |
| [ ] | Noise | [ ] | Population/Housing | [ ] | Public Services |
| [ ] | 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.

**Prepared by:** Robin Cort 8/11/2021

Robin Cort — Date
Senior Technical Practice Lead
Woodard & Curran

**Reviewed by**: elizabeth meyerhoff 8/11/2021

Elizabeth Meyerhoff — Date
Environmental Specialist
Coachella Valley Water District

**Reviewed by**: William Patterson 8/11/2021

William Patterson — Date
Environmental Supervisor
Coachella Valley Water District

**Submitted by**: 8/11/21

Steve Bigley — Date
Director of Environmental Services
Coachella Valley Water District

## 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 proposed project is located in unincorporated Riverside County to the south of the unincorporated community of Mecca, within the eastern Coachella Valley. The Coachella Valley is relatively flat, surrounded by undeveloped northwest-southeast trending mountainous areas to the east (Mecca Hills and Joshua Tree National Park) and west (Santa Rosa and San Jacinto Mountains). Portions of the eastern Coachella Valley are relatively undeveloped and are composed largely of agricultural lands. The general visual

character of the eastern Coachella Valley includes date groves and agricultural uses; desert oasis areas; cove-like communities at the base of the Santa Rosa Mountains; the Whitewater River Stormwater Channel; the Salton Sea State Recreation Area; and desert and mountain vistas (Riverside County 2014).

There are no designated state scenic highways within the project area. State Route 111, from Bombay Beach on the Salton Sea to Avenue 66 in Mecca, within the project area, is a State-eligible Scenic Highway, providing views of the Salton Sea and the surrounding mountainous wilderness. Interstate 10, located approximately 8 miles north of the project area, is a County-eligible Scenic Highway (Riverside County 2015).

The existing visual character of the proposed project site is shown in **Figure 3-1**.

**Figure 3-1: IXTP 7991 Site Photographs**

*View looking east within the center portion of the project site.*

*South-facing view of the project site.*

*View of the project site from Hammond Road. (Google 2019)*

**a, c) Less than Significant Impact**

The *Riverside County General Plan* (Riverside County 2015) defines scenic vistas as points accessible to the general public that provide a view of the countryside. The project area is located south of the unincorporated community of Mecca in a predominantly undeveloped, agricultural area. The visual character of the project area, as shown in **Figure 3-1**, is defined by the relatively level agricultural lands and surrounding mountains, which can be seen in the distance from the project area. The IXTP 7991 site is currently occupied by water treatment facilities including adsorption vessels, backwash tanks, and waste tanks. A concrete block wall partially shields the tanks from view from Hammond Road, and the remainder of the perimeter is surrounded by a chain-link security fence. The existing visual character of the site is utilitarian.

The proposed project would construct new adsorption vessels, backwash and waste tanks, a chemical building, piping, and other elements at the IXTP 7991 site. Construction activities would temporarily impact views and the visual character of the project area through placement of construction equipment at the IXTP 7991 site. These construction impacts would be temporary. The proposed project would replace existing IXTP 7991 facilities with similar facilities (such as the new adsorption vessels and chemical systems). The new adsorption vessels would be approximately 8 feet in diameter and 15 feet tall, with a potential canopy structure with an overall height of 18 feet. These dimensions would be similar to the existing facilities. The new facilities would have a similar aesthetic to the existing facilities; that is, they would be utilitarian in nature, and have approximately the same height and footprint as the existing vessels, tanks, and structures. The proposed project would not substantially increase the density of facilities or the number of aboveground structures at the site. The existing concrete block wall would remain in place and shield portions of the facility from view from Hammond Road. Although the proposed project would alter the specific facilities at the IXTP 7991 site, the overall visual character of the project site and surrounding area would not be significantly different from existing conditions. The impact on scenic vistas and visual character would be less than significant.

**b) No Impact**

The proposed project is not within view of a State or County designated scenic highway. State Route 111, located near the proposed project site, is recognized as a State-eligible scenic highway, but is not designated as a scenic highway. Any potential impacts to scenic resources would be construction-related and temporary in nature. Therefore, the proposed project would not substantially damage scenic resources within a State scenic highway and there would be no impact on scenic resources.

**d) Less than Significant Impact**

Construction of the proposed project may create a temporary source of light from construction equipment parked on site and potential security lighting at the site, but the impact would cease upon completion of construction. The existing IXTP 7991 facilities include security lighting. The proposed project would include similar security lighting on

new structures (such as the chemical building). Certain facilities would be demolished as part of the proposed project, existing lighting associated with those facilities would be removed. The proposed project would alter the lighting at the site to illuminate new facilities, but would not result in a significant change to the quantity or intensity of lights compared to the existing facilities. New lighting installed for the replacement facilities would be of the lowest illumination necessary for security and safety, and would be shielded and directed downward to avoid light spillage or glare onto neighboring properties or Hammond Road. The proposed project would not adversely affect day or nighttime views within the project area and the impact on day or nighttime views would be less than significant.

*Mitigation Measures:* None required or recommended.

**Supplemental NEPA Analysis**

To meet the requirements of *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments* the environmental document must identify visually sensitive areas or landscape features that are in the vicinity of the proposal, and the extent to which an area would be visually impacted by the proposal, considering structure heights, viewing angles, and the degree of screening between the project and the sensitive area or feature.

As described in Sections 3.1(a) through (d), the proposed project would not substantially alter the visual character of the proposed project site or surrounding areas. The IXTP 7991 site currently houses water treatment facilities such as ion exchange tanks, piping, and other structures that are utilitarian in nature. The proposed project would replace structures and facilities at the site, but the overall nature, density, and scale of the new facilities would be similar to the existing facilities. Construction of the proposed project would have a duration of approximately 12 months, and would include use of heavy equipment that may be visible at the proposed project site. Project construction would be temporary, and would not dramatically alter the appearance of the site given its existing utilitarian nature. The proposed project is within the viewshed of the surrounding hills and mountains, which provide distant scenic views, but the project site is not in the vicinity of any visually sensitive areas or landscape features. The proposed project would not result in noticeable changes to the character or quality of views from the surrounding area due to its distance from the surrounding hills and because the proposed project would not substantially alter the appearance of the Project site. The proposed project would not visually impact the area around the site and would not substantially degrade the visual character or quality of the site or the surrounding vicinity, and the impact would be less than significant.

## 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 project site is an unvegetated lot with a dirt and gravel ground surface. The site is currently occupied by the existing Well 7991 and IXTP 7991 equipment. Agricultural areas and State Route 111 border the project site. According to the California Department of Conservation (CDOC 2016a), the IXTP 7991 site and surrounding farmland east of State Route 111 are classified as prime farmland (**Figure 3-2**), although the existing site is not currently in agricultural use. According to California Department of Conservation mapping of Williamson Act enrolled lands, the project area is not located on lands protected by a Williamson Act contract (**Figure 3-3**) (CDOC 2016b).

The California Department of Forestry and Fire Protection (Cal Fire) publishes maps and spatial data which classify land cover throughout the state into major forest or range-related classes, as well as non-forest and rangeland classes (such as urban, water, and agriculture). The project site is classified as desert shrub, agriculture, and urban land, and the land cover of the surrounding area is of the same types (Cal Fire 2015). The site is not zoned for forest or timberland uses, and there are no designated forest lands in the project vicinity (Riverside County 2015).

**Figure 3-2: Important Farmland Map**

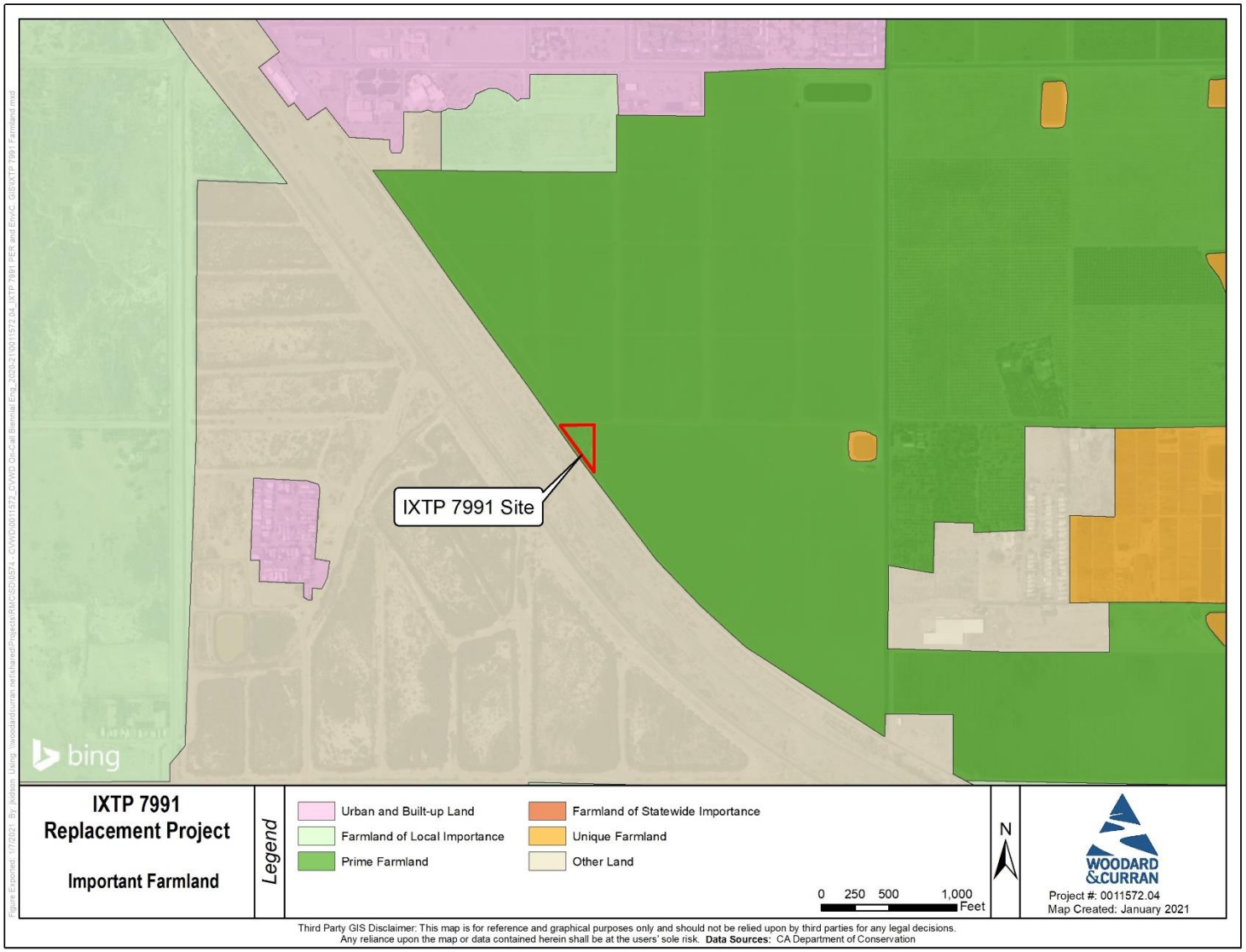
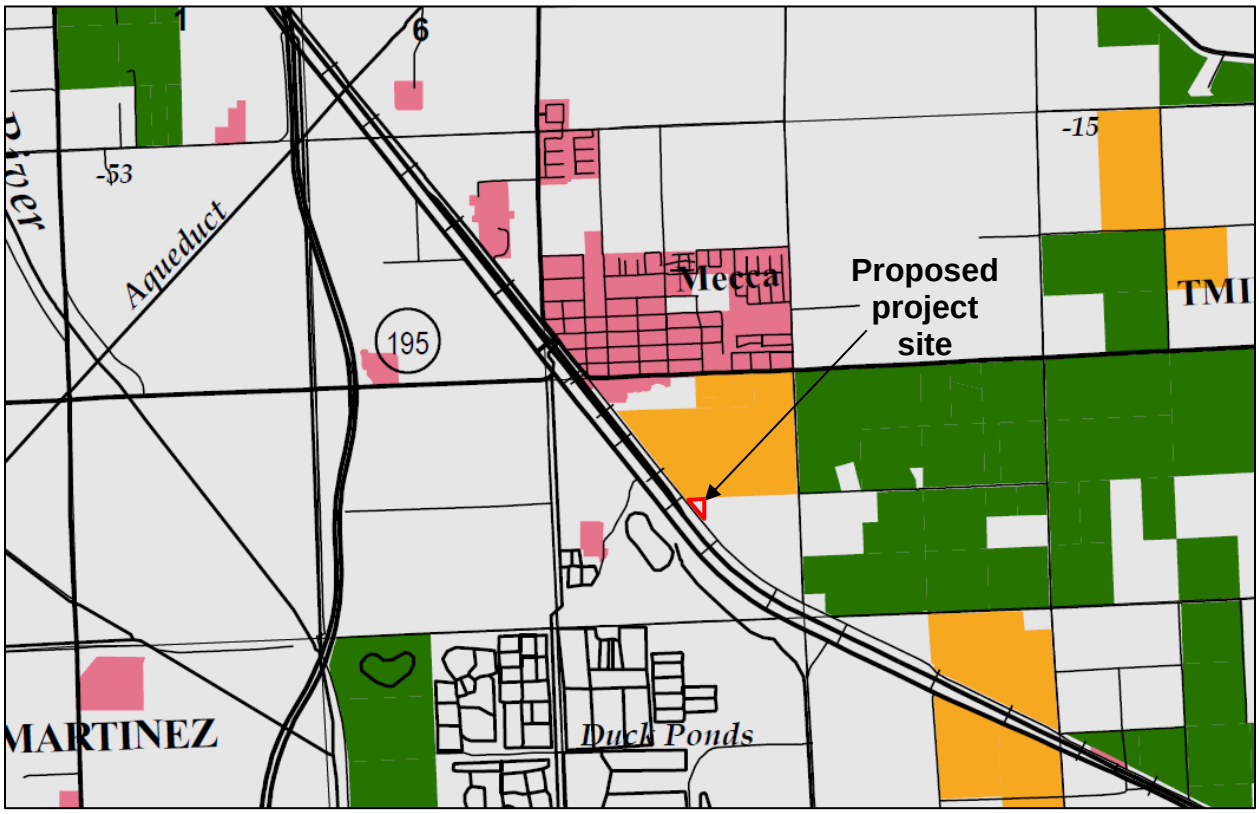


**Figure 3-3: Williamson Act Lands**




Notes: Green color indicates Williamson Act-Prime Agricultural land; yellow color indicates Williamson Act-nonrenewal land; pink color indicates urban and built up land.
Source: California Department of Conservation Division of Land Resource Protection Conservation Program Support, "Riverside County Williamson Act FY 2015/16 Sheet 2 of 3," 2016.

### a, e) Less than Significant Impact

The project site is mapped as prime farmland by the California Department of Conservation, but both the land use designation and zoning specify that the site is intended for mixed use. The site is not currently used for agriculture or available for agricultural use because it is occupied by CVWD water supply facilities. The proposed project would replace the IXTP 7991 facilities. The land use would not change and is compatible with existing zoning. Therefore, the proposed project would not convert the site from agricultural use.

As discussed in *Section 3.14 Population and Housing*, the proposed project may enable CVWD to consider approving new water meters in the Mecca area. Therefore, the proposed project may indirectly support planned growth described in the *Riverside County General Plan*. Any potential future development would occur in accordance with acceptable land uses identified in the *Riverside County General Plan,* would conform with General Plan policies supporting maintenance of agricultural land, and would not convert agricultural land to non-agricultural use. The proposed project would not result in land use changes and thus would not convert important farmland to a non-agricultural use, conflict

with zoning regulations, or result in other changes that could indirectly convert farmland to non-agricultural use. Therefore, impacts to important farmland would be less than significant.

**b, c, d) No Impact**

The proposed project site's land use designation and zoning are both for mixed use. The project would not change the land use at the site, and the land use would remain compatible with existing zoning. The IXTP 7991 site is not under a Williamson Act contract. There are Williamson Act non-renewal lands within proximity to the project area, but the proposed project would not affect Williamson Act contracted lands. There are no forest lands or timberlands within the project area (Riverside County 2015). Therefore, the proposed project would not conflict with zoning for forest or agricultural use, conflict with a Williamson Act contract, or cause loss or conversion of forest land or timberland. No impact to agricultural uses, Williamson Act contracts, or forest land would occur.

*Mitigation Measures:* None required or recommended.

**Supplemental NEPA Analysis**

The Farmland Protection Policy Act requires a federal agency to consider the effects of its actions and programs on the nation's farmlands. The objective of the Farmland Protection Policy Act, the regulation implementing the Farmland Protection Policy Act, (7 CFR part 658), and USDA Departmental Regulation 9500-3, *Land Use Policy*, is to minimize the impact federal programs have on the unnecessary and irreversible direct or indirect conversion of farmlands to nonagricultural uses. It assures that, to the extent possible, federal programs are administered to be compatible with State, local, and private programs and policies to protect farmland.

To meet the requirements of *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments* an analysis of important farmland and important forest land has been provided in Sections 3.2(a) through (e). The project area is located within the eastern Coachella Valley, which contains agricultural lands. According to the California Department of Conservation, the IXTP 7991 site is located on prime farmland. However, the site is owned by CVWD and is occupied by the existing Well 7991 and IXTP 7991; the site is not in agricultural production and does not have the potential for future agricultural use. The proposed project would include changes to water treatment facilities within the site; it would not result in land use changes. Neither short-term, ground-disturbing project construction activities nor the operation of the proposed IXTP 7991 facilities would result in permanent conversion of farmland to non-agricultural use or forest land to non-forest use. Therefore, the proposed project would not adversely affect any important farmland areas and the lead agency would be in compliance with the Farmland Protection Policy Act. The impact would be less than significant.

## 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 project area is located in the Coachella Valley region of the Salton Sea Air Basin (SSAB). The Coachella Valley region is under the regulatory jurisdiction of the South Coast Air Quality Management District (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, develops strategies to meet the standards. Air pollution in the project area is monitored at stations located in Mecca and Indio.

The NAAQS, which are required to be set by the United States Environmental Protection Agency (U.S. EPA) under the Clean Air Act, provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly (U.S. EPA 2016). Similarly, the CAAQS are established by the California Air Resource Board to protect health of the most sensitive groups and are mandated by State law. U.S. EPA has set NAAQS for six pollutants, which are called “criteria pollutants”: carbon monoxide (CO), lead, nitrogen dioxide ($NO_2$), ozone ($O_3$), particulate matter ($PM_{10}$ and $PM_{2.5}$), and sulfur dioxide ($SO_2$). California has added three additional criteria pollutants:

hydrogen sulfide, visibility reducing particles, and vinyl chloride. In addition, 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 SSAB is classified as being in "attainment" or "nonattainment." The 2016 *Air Quality Management Plan* (SCAQMD 2017) assesses the attainment status of the Coachella Valley portion of the SSAB. The NAAQS and CAAQS attainment status for the Coachella Valley portion of the SSAB is presented in **Table 3-1**. The SSAB is in nonattainment for the following standards: the State standards for 1-hour ozone; both the federal and State standards for 8-hour ozone, and federal and State standards for $PM_{10}$ (SCAQMD 2017). Thus, the Coachella Valley portion of the SSAB is required to implement strategies that would reduce pollutant levels to recognized standards. The *Air Quality Management Plan* provides a strategy for the attainment of State and federal air quality standards.

**Table 3-1: Criteria Pollutant Attainment Status - Coachella Valley Portion of the Salton Sea Air Basin**

| Pollutant | State (CAAQS) | Federal (NAAQS) |
|---|---|---|
| $O_3$ – 1-hour | Nonattainment (0.09 ppm) | Attainment (0.12 ppm) |
| $O_3$ – 8-hour | Nonattainment (0.070 ppm) | Pending – Expect Nonattainment (Severe) (0.070 ppm) |
| $PM_{10}$ – 24-hour | Nonattainment (50 µg/m$^3$) | Nonattainment (Serious) (150 µg/m$^3$) |
| $PM_{10}$ – Annual | Nonattainment (20 µg/m$^3$) | -- |
| $PM_{2.5}$ – 24-hour | -- | Unclassifiable/ Attainment (35.0 µg/m$^3$) |
| $PM_{2.5}$ – Annual | Attainment (12.0 µg/m$^3$) | Unclassifiable/ Attainment (12.0 µg/m$^3$) |
| CO | Attainment (1-hour [20 ppm]; 8-hour [9 ppm]) | Unclassifiable/ Attainment (1-hour [35 ppm]; 8-hour [9 ppm]) |
| $NO_2$ | Attainment (1-hour [0.18 ppm]; annual [0.030 ppm]) | Unclassifiable/ Attainment (1-hour [0.10 ppm]; annual [0.053 ppm]) |
| $SO_2$ | Attainment (1-hour [0.25 ppm]; 24-hour [0.04 ppm]) | Unclassifiable/ Attainment (1-hour [75 ppb]; 24-hour [0.14 ppm]; annual [0.03 ppm]) |
| Lead | Attainment (30-day average [1.5 µg/m$^3$]) | Unclassifiable/ Attainment (3-months rolling [0.15 µg/m$^3$]) |
| Sulfates | Attainment (24-hour [25 µg/m$^3$]) | -- |
| Hydrogen Sulfide | Unclassified (1-hour [0.03 ppm/42 µg/m$^3$]) | -- |

Sources: SCAQMD 2017; CARB 2016; 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 SSAB's air quality. These thresholds are listed in **Table 3-2**.

**Table 3-2: SCAQMD Air Quality Significance Thresholds for Coachella Valley**

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

Notes: (1) NOx (nitrogen oxides) and ROG (reactive organic gases)/VOC (volatile organic compounds) are ozone precursors, which chemically react in the presence of sunlight to form ground-level ozone.
(2) For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.
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. The project site is located in Source Receptor Area 30, Coachella Valley (SCAQMD 2008a). LSTs have been developed for emissions within construction areas up to five acres in size. SCAQMD provides lookup tables for sites that measure up to one, two, or five acres. The footprint of the proposed project would be approximately one acre; therefore, LSTs for the one-acre site are applicable. LSTs for construction on a one-acre site in Source Receptor Area 30 are shown in **Table 3-3**. LSTs are provided for receptors at a distance of 500 meters (1,640 feet) from the project site boundary. The closest sensitive receptors to the project site are residences located approximately 2,000 feet east and west of the proposed project site.

**Table 3-3: SCAQMD LSTs for Construction and Operation**

| Pollutant | Allowable emissions from a one-acre site in Source Receptor Area 30 for a receptor within 500 meters (pounds/day) |
|---|---|
| Gradual Conversion of $NO_x$ to $NO_2$ | 733 |
| CO | 24,417 |
| $PM_{10}$ - operation | 52 |
| $PM_{10}$ - construction | 214 |
| $PM_{2.5}$ - operation | 26 |
| $PM_{2.5}$ - construction | 105 |

Source: SCAQMD 2009

### a) Less than Significant Impact

SCAQMD's 2016 *Air Quality Management Plan*, which assesses the attainment status of the Coachella Valley portion of the SSAB and provides a strategy for attainment of State and federal air quality standards, is the applicable air quality plan. The *Air Quality Management Plan* strategies are developed based on population, housing, and employment growth forecasts anticipated under local general plans and the Southern California Association of Governments' (SCAG) *2016 Regional Transportation Plan/Sustainable Communities Strategy* (SCAG 2016).[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 development of the applicable air quality plan. The proposed project would replace facilities at the existing IXTP 7991 to allow groundwater pumping at Well 7991. Well 7991 has been out of service since 2017, and historically pumped approximately 1,000 gpm. Well 7991 is capable of providing 1,500 gpm, and the proposed project would allow IXTP 7991 to treat up to 2,000 gpm to match the well capacity and provide an operating efficiency buffer. As described in *Section 3.14 Population and Housing,* the proposed project may allow CVWD to consider approving new water meters in the Mecca area. CVWD's 2015 *Urban Water Management Plan* estimated that its urban water service area population would more than double between 2015 and 2040 if development occurs consistent with SCAG growth forecasts (CVWD 2016). Therefore, the proposed project would serve growth that was planned for in local growth forecasts. The proposed project would not lead to population, housing or employment growth that exceeds the forecasts used in the development of the *Air Quality Management Plan*. Potential for conflicts with the *Air Quality Management Plan* thus would be less than significant.

[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*.

### b) Less than Significant Impact

The proposed project would result in emissions of criteria pollutants from short-term construction activities and long-term operation and maintenance activities. Construction and operation 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 related to project footprint, excavation volume, schedule, and other information found in *Section 2 Project Description*. In instances where project-specific information was not available (such as construction fleet, construction equipment horsepower, length of worker trips, soil moisture content, etc.), the analysis relied on CalEEMod default values for construction activities.

SCAQMD's Rule 403 (Fugitive Dust) and Rule 403.1 (Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources) require 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 use of off-site vehicles to transport workers, deliver materials to the site, and haul export material 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 project.

**Table 3-4: Proposed Project Maximum Daily Construction Emissions (lbs/day)**

| Emissions Source | $NO_x$ | ROG | CO | $SO_x$ | $PM_{2.5}$ | $PM_{10}$ |
|---|---|---|---|---|---|---|
| Construction equipment | 7.3 | 0.8 | 7.6 | <0.1 | 0.4 | 0.4 |
| Offsite emissions | 1.1 | 0.1 | 0.5 | <0.1 | <0.1 | 0.2 |
| Fugitive dust (with required fugitive dust controls) | -- | -- | -- | -- | 0.2 | 0.3 |
| **Total Maximum Daily Emissions** | **8.4** | **0.9** | **8.1** | **<0.1** | **0.6** | **0.9** |
| *SCAQMD Regional Thresholds* | *100* | *75* | *550* | *150* | *55* | *150* |
| ***Threshold exceeded?*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |
| *LST (onsite stationary emissions only)* | *733* | *--* | *24,417* | *--* | *105* | *214* |
| ***Threshold exceeded?*** | ***No*** | ***N/A*** | ***No*** | ***N/A*** | ***No*** | ***No*** |

Notes: Emissions presented are the highest of winter or summer modeled emissions. Values may not sum due to rounding. See Appendix B for CalEEMod output sheets. Figures are from mitigated emissions scenario to account for standard dust control measures.

As shown in **Table 3-4**, project construction emissions would not exceed SCAQMD regional thresholds or LSTs. Therefore, impacts on regional air quality and local receptors due to construction-related air pollutant emissions would be less than significant.

*Operational Emissions*

Long-term operational emissions of criteria pollutants would result from vehicle trips to and from the IXTP 7991 site for operation, maintenance, inspection, and monitoring activities. Emissions may also result from use of the emergency diesel generator. Criteria pollutant emissions from electricity usage at the site are associated with the power plant producing the electricity. Power plants are stationary sources permitted by air districts and/or the U.S. EPA, and are subject to local, State, and federal control measures. Thus, CalEEMod does not calculate or attribute emissions of criteria pollutants from electricity consumption to individual projects. In terms of motor vehicle trips, it is estimated that CVWD staff would visit the site two times per week for operation and maintenance activities. For the purposes of this analysis, it is assumed that the emergency generator would run for up to 7 days each year (168 hours).

The operational emissions from vehicle trips and generator use are summarized in **Table 3-5**. Operation of the proposed project would not exceed any SCAQMD mass daily thresholds.

**Table 3-5: Proposed Project Maximum Daily Operation Emissions (lbs/day)**

| Emissions Source | $NO_x$ | ROG | CO | $SO_x$ | $PM_{2.5}$ | $PM_{10}$ |
|---|---|---|---|---|---|---|
| Area | 0 | <1 | <0.1 | 0 | 0 | 0 |
| Mobile | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Stationary (assumes 24 hours of emergency generator use) | 33.0 | 11.9 | 30.1 | <0.1 | 1.7 | 1.7 |
| **Total Maximum Daily Emissions** | **33.0** | **11.9** | **30.1** | **<0.1** | **1.7** | **1.7** |
| *SCAQMD Regional Thresholds* | *55* | *55* | *550* | *150* | *55* | *150* |
| ***Threshold exceeded?*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |
| *LST (onsite area and stationary emissions only)* | *733* | *--* | *24,417* | *--* | *26* | *52* |
| ***Threshold exceeded?*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |

Notes: Emissions presented are the highest of winter or summer modeled emissions. Values may not sum due to rounding. See Appendix B for CalEEMod output sheets. Figures are from mitigated emissions scenario to account for standard dust control measures. Emergency generator emissions were modeled separately to isolate the mass daily emissions, these results are also included in Appendix B.

The proposed project emissions of criteria pollutants would be less than significant.

### 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. Land uses surrounding the IXTP 7991 site include roadways and agricultural fields. The nearest residences are located approximately 2,000 feet to the east and west of the project site. The Boys and Girls Club of Coachella Valley is

approximately 0.5 miles northwest of the proposed project site, along Avenue 66. The Mecca Elementary School is located approximately one mile north of the project site, and the Saul Martinez Elementary School is located approximately 0.8 miles northeast of the project site. Child care facilities exist in the community of Mecca, which is approximately 0.5 miles from the proposed project site. There are no hospitals, resident care facilities, or senior housing facilities in the vicinity of the proposed project.

As discussed in Section 3.3(b) above, the project's construction and operational emissions would not exceed the SCAQMD regional thresholds or LSTs, which are set at levels that protect public health. Sensitive receptors are located approximately 2,000 feet from the proposed project site. Emissions would be below applicable thresholds and the proposed project's impact on sensitive receptors would be less than significant.

**d) Less than Significant Impact**

The 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 the construction site. Sensitive receptors are located approximately 2,000 feet from the project site and odors would dissipate within this distance. Once the project is operational, the adsorption tanks, backwash and waste tanks, and other IXTP components would not be associated with odors. The existing purge pond would continue to operate consistent with its past usage; it would not contain standing water for extended periods of time that would create odors. Impacts due to odors would be less than significant.

*Mitigation Measures:* None required or recommended.

**Supplemental NEPA Analysis**

In accordance with the Clean Air Act, Section 176(c)(1), USDA is responsible for ensuring that their actions conform to applicable implementation plans for achieving and maintaining NAAQS. In order to conform with the applicable implementation plan, the proposed project must not contribute to new violations of standards for ambient air quality, increase the frequency or severity of existing violations, or delay timely attainment of standards in the area affected by the proposed project.

General Conformity with state implementation plans is a national Clean Air Act regulation that applies to most federal actions. For USDA-funded projects, a Clean Air Act General Conformity analysis applies only to projects in a nonattainment area or an attainment area subject to a maintenance plan. It is only required for criteria pollutants for which an area has been designated nonattainment or maintenance with NAAQS. The General Conformity Rule ensures that actions taken by federal agencies in nonattainment and maintenance areas do not interfere with the State's plans to meet NAAQS. 40 CFR Part 93.153 defines de minimis levels, which are the minimum thresholds for which a conformity determination must be performed. If the proposed project's annual emissions

from construction and/or operation are below the applicable de minimis levels, the project is not subject to a General Conformity determination.

Based on the federal attainment statuses for the SSAB, summarized in **Table 3-1**, the de minimis levels that apply to the SSAB are listed in **Table 3-6**. These levels apply to all direct and indirect annual emissions generated during construction and operation of the project.

**Table 3-6: General Conformity De Minimis Emission Rates for the Salton Sea Air Basin**

| Pollutant | SSAB NAAQS Attainment Status Designation | De Minimis Emission Rate (tons/year) |
|---|---|---|
| Ozone (VOCs or $NO_x$) | Severe Nonattainment | 25 |
| $PM_{10}$ | Serious Nonattainment | 70 |

Note: NOx (oxides of nitrogen) and ROG (reactive organic gases)/VOC (volatile organic compounds) are ozone precursors, which chemically react in the presence of sunlight to form ground-level ozone. For the purposes of this analysis, the terms ROG and VOC are used interchangeably.
Sources: U.S. EPA 2020; SCAQMD 2017.

**Table 3-7** summarizes the proposed project's total annual construction emissions and compares those to the applicable de minimis threshold for the SSAB region. As shown in **Table 3-7**, the project's criteria air pollutant emissions would not exceed the applicable de minimis thresholds. Therefore, the general conformity requirements do not apply to these emissions and the project is exempt from a conformity determination.

**Table 3-7: Maximum Annual Project Emissions Compared to De Minimis Thresholds (tons/year)**

| Emissions Source | $NO_x$ | VOC | $PM_{10}$ |
|---|---|---|---|
| Maximum construction emissions | <1 | <1 | <1 |
| *De Minimis Threshold* | *25* | *25* | *70* |
| ***Threshold exceeded?*** | ***No*** | ***No*** | ***No*** |

Notes: Notes: NOx (oxides of nitrogen) and ROG (reactive organic gases)/VOC (volatile organic compounds) are ozone precursors, which chemically react in the presence of sunlight to form ground-level ozone. For the purposes of this analysis, the terms ROG and VOC are used interchangeably. Sources: U.S. EPA 2020; SCAQMD 2017.

Per *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments*, sources of odors and mitigation measures necessary to minimize off-site migration of odors should also be addressed. See Section 3.3(d) above for a discussion of odors. The proposed project would not result in odors that would adversely affect the surrounding vicinity. The proposed project's air quality impact would be less than significant.

## 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 Resources Technical Study* for the project was prepared in January 2021 by Rincon Consultants, Inc. Biological conditions in the project area were evaluated by confirming applicable biological regulations, policies, and standards; reviewing biological literature pertinent to the site and vicinity; and conducting a reconnaissance-level biological survey of the site. The complete *Biological Resources Technical Study* is provided in **Appendix C**. The Area of Potential Effects (APE) for biological resources included the IXTP 7991 site parcel, as well as a 25-foot buffer around the parcel. The study area covered by the *Biological Resources Technical Study* is shown **Figure 3-4**.

Rincon conducted a literature review to obtain baseline information about the biological resources with potential to occur at the project site and surrounding areas. As part of the literature review, Rincon reviewed the latest versions of the California Department of Fish and Wildlife *California Natural Diversity Data Base* and *Biogeographic Information and Observation System*, U.S. Fish and Wildlife Service *Critical Habitat Portal* and *Information for Planning and Consultation*, U.S. Fish and Wildlife Service *National Wetland Inventory*, U.S. Department of Agriculture Natural Resources Conservation Service *Web Soil Survey*, and California Native Plant Society's *Electronic Inventory of Rare and Endangered Plants* (Rincon 2021a). A complete list of special status species previously documented within a five-mile radius of the project site was compiled from the *California Natural Diversity Data Base* entries.

A field survey of the project area and associated biological resources was conducted by Rincon biologists on April 30, 2020. The APE was surveyed on foot by a biologist familiar with the biological resources located in the regional vicinity of the property. **Figure 3-4** shows the study area boundary. An inventory of all plant and animal species observed was compiled, the existing vegetation communities were further classified, and the general site and habitat conditions were documented and described in Appendix C of the *Biological Resources Technical Study,* which is included as **Appendix C** to this IS/MND.

**Figure 3-4: Biological Resources Study Area**

Source: Rincon 2021

The APE is located within the CVMSHCP/NCCP area. The CVMSHCP/NCCP, which was approved in 2008 and updated in 2016, is a comprehensive, multi-jurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in the Coachella Valley region of Riverside County. The overall goal of the CVMSHCP/NCCP is to maintain and enhance biological diversity and ecosystem processes within the region while allowing for future economic growth (CVAG 2016). CVWD is a permittee under the CVMSHCP/NCCP. The APE is located within the planning boundary of the CVMSHCP/NCCP but is not within any specific CVMSHCP/NCCP Conservation Area. The closest Conservation Area is the Coachella Valley Stormwater Channel and Delta CVMSHCP/NCCP Conservation Area, approximately 0.6 miles west of the proposed project site on the other side of State Route 111.

*Habitat/Vegetation Communities*

The APE is disturbed/developed and surrounded by an agricultural area and adjacent Hammond Road. The APE includes the project site, which is entirely developed, with agriculture lands adjacent to the project site.

Developed land includes areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. It is characterized by permanent or semi-permanent structures and pavement or hardscape. The entire fenced project site within the APE is developed consisting of structures, tanks, compacted open areas for vehicle access, and an on-site retention basin. (Rincon 2021a)

Areas mapped as agriculture include fields adjacent to the fenced project site to the north and east (Rincon 2021a).

*Wildlife*

The APE provides limited habitat for wildlife species due to its developed nature, surrounding agricultural fields, and the lack of native vegetation. Species observed during the survey included common raven (*Corvus corax*) and house finch (*Haemorhous mexicanus*) (Rincon 2021a).

The lack of suitable buildings (with sufficient crevices and overhangs) and dense tree canopies reduces the likelihood that roosting bats and nesting birds utilize the site. Evidence of roosting bats was not observed during the survey.

*Special Status Plants*

While 11 special status plant species have been previously documented by the *California Natural Diversity Data Base* and California Native Plant Society's *Electronic Inventory of Rare and Endangered Plants*, within a five-mile radius of the project area the project site does not contain suitable habitat for any special status plant species. No suitable habitat exists within the APE for any of these plant species and none have a moderate or high potential to occur within the APE based on a variety of factors, including the disturbance history of the APE, lack of suitable soils, inappropriate hydrologic conditions, or the absence of appropriate vegetation communities. No special-status plant species were observed during the survey.

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. According to the *California Natural Diversity Data Base*, no sensitive plant communities are recorded within a five-mile radius of the project area. No sensitive plant communities were observed within the APE during the survey.

*Special Status Wildlife*

The *California Natural Diversity Data Base* query results included 27 special-status wildlife species tracked within 5 miles of the APE. The potential for special-status wildlife species to occur within the APE was assessed based on known distribution, habitat requirements, and existing site conditions. No special-status wildlife species were determined to have potential to occur within the APE and similarly none were detected within or immediately surrounding the APE during the reconnaissance survey. Consideration was given to the burrowing owl (*Athene cunicularia*) which is known to inhabit desert scrub habitats in the region. There are seven *California Natural Diversity Data Base* records of burrowing owl within 5 miles of the APE. The closest *California Natural Diversity Data Base* record is located approximately 2.6 miles northwest of the APE. However, no burrows were observed within the APE and soil conditions were severely compacted. Additionally, the site is heavily maintained and kept free of debris piles commonly used by burrowing owls. As a result, burrowing owls are not expected to occur within the APE. Lands west of the APE, west of Hammond Road, and along State Route 111 could provide potential burrowing owl habitat, but these roads are frequently traveled with existing high sound levels. Overall, the site lacks the potential for special-status wildlife species to occur based on low habitat quality in disturbed and developed areas of the APE, lack of native vegetation, and isolation of the APE from other suitable habitat due to surrounding developed land uses.

Destruction of bird eggs, nests, and nestlings is prohibited by federal and state law. Section 3503 of the California Fish and Game Code states that it is “unlawful to take, possess or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” Section 3503.5 of the California Fish and Game Code specifically protects birds of prey, and their nests and eggs, against take, possession, or destruction. Section 3513 of the California Fish and Game Code also incorporates restrictions imposed by the federal Migratory Bird Treaty Act with respect to migratory birds (which consists of all native bird species). Active nests with eggs or young are protected in any location where they are found.

Trees or other vegetation are not present within the APE, nor are existing buildings with prominent features such as ledges and overhangs that could support nesting of common species such as the common raven (*Corvus corax*) and house finch (*Haemorhous mexicanus*).

*Jurisdictional Resources*

Section 404 of the federal Clean Water Act establishes a program to regulate the discharge of dredged or fill materials into “waters of the United States.” Section 404

permits are administered by the U.S. Army Corps of Engineers. Section 401 of the Clean Water Act further regulates the discharge of dredged or fill materials and is administered in California by the SWRCB and Regional Water Quality Control Boards. California Department of Fish and Wildlife's Lake and Streambed Alteration Program (California Fish and Game Code Section 1600) is focused on protection and conservation of fish and wildlife resources within the bed, channel, and bank of "waters of the State."

Areas potentially subject to U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife jurisdiction were assessed during the literature review and field visit; however, a formal jurisdictional delineation was not performed. An on-site retention basin exists within the fenced area of the APE. It is periodically filled with water, which drains rapidly. Because this feature was constructed in an upland area for the purpose of water management, does not hold water for extended periods of time, and is isolated from other potentially jurisdictional waters, it is not likely subject to the jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, or California Department of Fish and Wildlife. No water features mapped by the National Wetlands Inventory occur within the APE.

*Wildlife Corridors, Linkages, and Preserves*

Wildlife movement and habitat fragmentation are important issues in assessing impacts to wildlife. Habitat fragmentation occurs when a proposed project results in a single, unified habitat area being divided into two or more areas in such a way that the division isolates the two new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or from one habitat type to another, as in the fragmentation of habitats within and around "checkerboard" residential development. Habitat fragmentation also can occur when a portion of one or more habitats is converted into another habitat, as when annual burning converts scrub habitats to grasslands habitat. The California Department of Fish and Wildlife *Biogeographic Information and Observation System* does not include any mapped essential habitat connectivity areas or natural landscape blocks near the APE. The closest mapped natural landscape blocks include the Mecca Hills area approximately 3 miles northeast of the APE and the Santa Rosa Mountains approximately 7 miles southwest of the APE. The APE is separated from these areas by existing development, agricultural areas, and transportation corridors including State Route 111. The APE is located within a developed and agricultural area that is subject to frequent human disturbance and is not connected to other contiguous habitats and open space areas. As a result, the APE does not occur within a wildlife movement corridor.

**a) Less than Significant**

A project-level *Biological Resources Technical Study* (**Appendix C**) was prepared to identify potential impacts to special-status species that would result from the proposed project. Although 11 special status plant species have been previously documented within a five-mile radius of the project area by the *California Natural Diversity Data Base* and California Native Plant Society's *Electronic Inventory of Rare and Endangered Plants*, the field survey determined that the project site does not contain suitable habitat for any

special status plant species. It was determined that the project site does not contain suitable habitat to support special status plant species because of the disturbance history or the site, lack of suitable soils, inappropriate hydrologic conditions, or absence of appropriate vegetation communities. No special status plant species have been documented in the project area and no suitable habitat exists, therefore the proposed project would not impact special status plant species.

Special-status wildlife species were evaluated for their potential to occur within the APE. Twenty-seven special-status wildlife species were previously recorded within a five-mile radius of the project area. The potential for special-status wildlife species to occur within the APE was assessed based on known distribution, habitat requirements, and existing site conditions. No special status wildlife species were determined to have the potential to occur within the APE. The proposed project would not impact special status wildlife species.

Active nests with eggs or young in them are protected from harm under the California Fish and Game Code Section 3503 and the Migratory Bird Treaty Act in any location where they are found, (e.g., injury, mortality, or disruption of normal adult behaviors resulting in the abandonment or harm to eggs and nestlings). There are no trees or other vegetation within the APE, nor were existing buildings identified with prominent features such as ledges or overhangs that could support nesting by common species such as the common raven (*Corvus corax*) and house finch (*Haemorhous mexicanus*). No burrows were observed within the APE that could be inhabited by burrowing owls. Based on lack of suitable habitat, and evidence acquired in the field survey no impacts to nesting birds are anticipated, therefore, impacts to nesting birds would be less than significant.

**b) No Impact**

Land cover within the APE consists of developed and agricultural land. No riparian habitat is present in the APE, and no sensitive plant communities have been recorded within a five-mile radius of the APE. Additionally, no sensitive vegetation communities were observed within or adjacent to the project site during the field survey. Furthermore, project impacts would be limited to previously disturbed areas at the IXTP 7991 site and within Hammond Road. Therefore, there would be no impact on sensitive vegetation communities.

**c) No Impact**

The APE for the proposed project does not include state or federally protected wetlands. The existing on-site retention basin at the project site was constructed for water management purposes; it does not hold water for an extended period of time or connect to any other water body that is subject to U.S. Army Corps of Engineers, Regional Water Quality Control Board, or California Department of Fish and Wildlife jurisdiction. The proposed project would have no impact on State or federally protected wetlands.

**d) No Impact**

The proposed project is located within a developed, fenced site which houses the existing IXTP 7991. As described above, the APE does not occur within a wildlife movement corridor, nor is it within any conservation areas identified in the CVMSHCP/NCCP. The project site is not within any mapped essential habitat connectivity areas or natural landscape blocks that facilitate wildlife movement. The proposed project would be contained within the IXTP 7991 site and immediately adjacent portion of Hammond Road. The site is currently occupied by water treatment facilities and has a perimeter fence; similar features would be in place once the proposed project is constructed. Therefore, the proposed project would not result in a significant change from the existing conditions in terms of wildlife movement. The proposed project is not anticipated to have an effect on localized, regional, or urban-adapted wildlife movement. There would be no impact to wildlife movement.

**e) No Impact**

Riverside County Ordinance 559 protects oak woodlands and requires a permit for removal of any native trees on parcels greater than one-half acre in size and above 5,000 feet in elevation. There are no trees in the APE; therefore, this ordinance would not apply to activities within the APE. There would be no impact on local policies or ordinances.

**f) No Impact**

The proposed project is within the CVMSHCP/NCCP planning area but is not located within or adjacent to a CVMSHCP/NCCP Conservation Area, as defined in the CVMSHCP/NCCP. Therefore, the proposed project would not have the potential to conflict with the CVMSHCP/NCCP. Additionally, as discussed under Sections 3.4(a), (b), and (d) above, the proposed project would not have a significant impact on special status species, sensitive communities, or habitat linkages that the CVMSHCP/NCCP is intended to protect. The proposed project would not conflict with a habitat conservation plan and there would be no impact.

*Mitigation Measures: None required or recommended.* None required or recommended.

**Supplemental NEPA Analysis**

To meet the requirements of USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments, this document includes an evaluation of effects to biological resources addressing three primary categories: listed threatened or endangered species; critical habitat and other vegetation; and other fish and wildlife species. Potential impacts under regulations protecting endangered species, bald and golden eagles, migratory birds, wetlands, and regulations managing invasive species, are discussed in the following subsections.

*Endangered Species Act*

Section 7 of the Federal Endangered Species Act requires federal agencies, in consultation with the Secretary of the Interior, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of these species. Under Section 7, a project that could result in incidental take of a listed threatened or endangered species must consult with the U.S. Fish and Wildlife Service to obtain a Biological Opinion. If the Biological Opinion finds that the project could jeopardize the existence of a listed species ("jeopardy opinion"), the agency cannot authorize the project until it is modified to obtain a "nonjeopardy" opinion.

For the purpose of the proposed project, USDA would act as the federal lead agency. The information contained within the IS/MND and the *Biological Resources Technical Study* (Rincon 2021, **Appendix C**) may be used to support project compliance with the Federal Endangered Species Act. The *Biological Resources Technical Study* includes an official species list from the U.S. Fish and Wildlife Service *Information for Planning and Consultation* system, and describes the potential for each listed species to appear at the proposed project site.

*Section 3.4 Biological Resources*, describes the fact that the project site does not contain suitable habitat for any special status plant or wildlife species. While 11 special status plant species have been previously documented within a five-mile radius of the project area by the *California Natural Diversity Data Base*, it was determined that the proposed project site does not contain suitable habitat to support special status plant species because of the disturbance history of the site, lack of suitable soils, inappropriate hydrologic conditions, or absence of appropriate vegetation communities. No special status plant species were observed within the project area during the field survey.

Special-status wildlife were evaluated for their potential to occur within the project area, including an additional buffer area, where impacts could occur. Although 27 special-status wildlife species were previously recorded within a five-mile radius of the project area, the project area was determined not to provide suitable habitat to support any of these special status wildlife species, due to low habitat quality in disturbed and developed areas of the APE, lack of native vegetation, and isolation of the APE from other suitable habitat due to surrounding developed land uses. Therefore, the proposed project is not expected to result in impacts to special-status plant or wildlife species. The proposed project would not jeopardize any listed species and the lead agency would be in compliance with the Federal Endangered Species Act. Thus, the determination of effect is Species/Habitat Not Present, and there would be no effect.

*Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act*

The Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act prohibit the take of migratory birds (or any part, nest, or eggs of any such bird) and the take and commerce of eagles. Executive Order 13168 requires that any project with federal involvement address impacts of federal actions on migratory birds. As described in

*Section 3.4 Biological Resources*, the proposed project would comply with the Migratory Bird Treaty Act and would thus have a less than significant impact on nesting birds. Thus, the lead agency would be in compliance with Executive Order 13168.

Additionally, per the *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments*, the EA should evaluate potential impacts to "important bird areas" identified by the National Audubon Society and critical areas for use by shorebirds as identified in the Western Hemisphere Shorebird Reserve Network. No important bird areas or critical areas for use by shorebirds exist in the proposed project vicinity; the nearest important bird area and critical area for use by shorebirds is located at the Salton Sea, approximately 3 miles south of the proposed project site (Audubon Society 2021, Western Hemisphere Shorebird Reserve Network 2021). The impacts of the proposed project would be limited to the project site and immediate surroundings; therefore, the project effect on important bird areas or critical shorebird areas would be less than significant.

*Protection of Wetlands*

Under Executive Order 11990, federal agencies must avoid affecting wetlands unless it is determined that no practicable alternative is available.

As described in *Section 3.4 Biological Resources*, the proposed project would not have the potential to affect wetlands. The proposed project site is located in an upland area and does not contain any wetlands. The existing on-site retention basin at the IXTP 7991 project site was constructed as part of the water treatment facility, does not retain water for extended periods of time, and is not connected with other jurisdictional waters. There would be no impacts to wetlands and the lead agency would be in compliance with Executive Order 11990.

*Invasive Species*

Per *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments,* an environmental assessment should address invasive species and potential impacts the project may have.

As described in **Appendix C**, non-native plant species were observed in the APE during the field survey conducted for the *Biological Resources Study*. The IXTP 7991 site is primarily devoid of vegetation, and no new vegetation would be planted as part of the proposed project. Therefore, the potential for spread of invasive species would be minimal. During project construction, measures to control spread of invasive species would be implemented, such as using excavated soil on site as fill to the extent possible and cleaning construction vehicle track-out on unpaved roads. Therefore, the proposed project impact would be less than significant.

## 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

A Cultural Resources Assessment Report was prepared in January 2021 by Rincon Consultants, Inc. for the proposed project. The complete *Cultural Resources Assessment Report* is provided in **Appendix D** and is summarized in this IS/MND. The *Cultural Resources Assessment* was prepared to satisfy requirements of CEQA; AB52 Tribal Cultural Resources; the National Environmental Policy Act; and Section 106 of the National Historic Preservation Act. The study included a literature review, records search, and field survey. For the purposes of evaluating potential impacts to cultural resources, the APE included the IXTP 7991 site and the Hammond Road right of way located adjacent to the IXTP 7991 site and would extend to a maximum depth of 15 feet below grade.

*Records Search*

On May 4, 2020, as part of the *Cultural Resources Assessment Report*, a cultural resource records search of the California Historical Resources Information System was conducted at the Eastern Information Center at the University of California, Riverside, and a search of the National Register of Historic Places, the California Register of Historical Resources, and the California State Historic Resources Inventory list was conducted. The records search was conducted to identify any previously recorded cultural resources and

previously conducted cultural resources studies within the project area and a one-mile radius surrounding it.

The California Historical Resources Information System records search indicates that 25 previous cultural resources studies have been conducted within a one-mile search radius of the project area. Of these studies, one includes a portion of the project area. This study, RI-09081 (*Identification and Evaluation of Historic Properties Desert Alliance for Community Empowerment Sanitary Sewer and Agricultural Drainage Pipe and Domestic Pipe Improvement Project Near the Community of Mecca, Riverside County, California*) is a report authored by CRM Tech for USDA Rural Development and CVWD in 2014. The APE delineated for the study includes the Hammond Road and Avenue 68 rights-of-way in the current APE vicinity. The study included a California Historical Resources Information System search, background research, Native American outreach, and a field survey of the APE described below. The study did not result in the identification of any cultural resources in the APE.

The California Historical Resources Information System search identified 29 previously recorded cultural resources within a one-mile radius of the APE. These resources include 27 historic period resources (sites, buildings, and structures) and two prehistoric isolates (pottery shards). None of these resources are located within the current APE.

*Local Interested Party Consultation*

As part of Section 106 consultation, letters were emailed to local interested parties on May 8, 2020 to request information pertaining to potential historic or other cultural resources located in or near the APE. Local parties included the County of Riverside Planning Department, the Coachella Valley Historical Society, Inc. and the Historical Society of Palm Desert. Due to COVID-19 pandemic closure considerations, no hard copy letters were mailed. Replies were received from all three parties in response to this outreach effort, summarized below.

- The Historical Society of Palm Desert responded on May 10, 2020 stating that the undertaking is within a shallow aquifer area and noted it understood the undertaking may not require major excavation. The Historical Society of Palm Desert assigned the undertaking a low priority regarding potential cultural resource concerns because little new area may be disturbed.
- The Coachella Valley Historical Society responded on May 11, 2020 stating the proposed undertaking is of no concern to the organization.
- In a telephone conversation conducted on May 15, 2020, the Riverside County Planning Department stated it is unaware of any potential cultural resource concerns associated with the proposed undertaking.

Documentation of the outreach effort as described above, is included in the *Cultural Resources Assessment Report*, included as **Appendix D**.

*Field Survey*

A pedestrian field survey of the project area was conducted on April 30, 2020. All exposed ground surfaces were visibly inspected for artifacts (such as flaked stone tools, tool-making debris, stone milling tools, fire-affected rock), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (such as standing exterior walls, postholes, foundations) or historic debris (for example, metal, glass, ceramics). The APE is developed and contains structures, tanks, compacted gravel areas, and a water blow off basin. Ground surface visibility throughout the APE ranged from 0 to 50 percent. Exposed soils consist of medium brown sandy loam, intermixed with gravel. No cultural resources were identified during the survey. As all built features in the APE were constructed after 1996, they were not formally evaluated as part of the current study. The field survey identified no archaeological resources in the project area. In addition, results of the field investigation confirm no historic-age buildings or structures are located within the project area.

**a-b) Less Than Significant with Mitigation Incorporated**

According to the California Historical Resources Information System records search conducted for the *Cultural Resources Assessment* (**Appendix D**), no previously recorded historic resources exist within the APE. The field survey conducted for this study did not identify any historical resources in the APE. None of the built features within the APE would qualify for the National Register of Historic Places. Based on the results of the California Historical Resources Information System search, there is no known presence of cultural resources in the APE. Although historical or archaeological resources are not anticipated to be encountered due to the developed nature of the project area, there is the potential to discover previously unrecorded cultural resources during ground-disturbing activities. **Mitigation Measure CUL-1** would require that all earth disturbing work be temporarily suspended if cultural resources are discovered during construction until the discovery can be evaluated, and appropriate notification measures can be taken. With implementation of **Mitigation Measure CUL-1**, the potential for the proposed project to cause a substantial adverse change to the significance of historical or archeological resources would be reduced to less-than-significant levels.

**c) Less Than Significant**

The unanticipated discovery of human remains is also a possibility during ground disturbing activities. CVWD will comply with applicable regulations if human remains were unearthed during construction activities. The following notifications will apply, depending on the nature of the find. If the find includes human remains, or remains that are potentially human, a no-work radius will be established and CVWD shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). CVWD shall notify the Riverside County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the

Coroner will notify the Native American Heritage Commission, which then will designate a Native American Most Likely Descendant for the project (Section 5097.98 of the PRC). The designated Most Likely Descendant will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the Most Likely Descendant , the Native American Heritage Commission can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the Native American Heritage Commission or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinterment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction. Compliance with applicable regulations would ensure that impacts to human remains are less than significant.

*Mitigation Measures*:

**Mitigation Measure CUL-1: Unanticipated Discovery of Cultural Resources**

In the event that cultural resources are unearthed during project construction, CVWD's construction inspector and/or a project archaeologist shall temporarily suspend all earth disturbing work within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, they shall immediately notify CVWD's Construction Inspector and Environmental Services Department. CVWD shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the National Register of Historic Places or California Register of Historical Resources. Work may not resume within the no-work radius until CVWD, through consultation as appropriate, determines that the site either: 1) is not eligible for the National Register of Historic Places or California Register of Historical Resources; or 2) that the treatment measures have been completed to its satisfaction.

**Supplemental NEPA Analysis**

To meet the requirements of *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments,* the environmental document must include an evaluation and consideration of a proposed project's potential effects to cultural resources and historic properties under the National Historic Preservation Act. The purpose of the National Historic Preservation Act is to protect, preserve, rehabilitate, or restore significant historical, archaeological, and cultural resources. Section 106 requires federal agencies to take into account effects on historic properties. Section 106 review involves a step-by-step procedure described in detail in the implementing regulations (36 CFR Part 800).

*National Historic Preservation Act, Section 106 Consultation*

Section 106 Native American outreach was initiated in May 2020, when emails were sent to 10 Native American groups. Responses were received from Jamul Indian Village, La Posta Band of Diegueno Mission Indians, Quechan Tribe of the Fort Yuma Reservation, Ramona Band of Cahuilla, Santa Rosa Band of Cahuilla Indians and Viejas Band of Kumeyaay Indians. None of the tribes requested to consult on the project or provided information regarding cultural resources in the vicinity of the project.

Rincon's Cultural Resource Assessment analysis includes a Section 106 evaluation for the proposed project and can be submitted as part of the consultation process with the State Historic Preservation Officer. Concurrence by State Historic Preservation Officer would ensure compliance with the National Historic Preservation Act.

A total of 25 cultural resources studies have been previously conducted within a one-mile radius of the proposed project. Of these studies, one included portions of the APE in Hammond Road, and did not identify any cultural resources in the APE. A total of 29 cultural resources have been previously recorded within a one-mile radius of the proposed project. These resources include 27 historic period resources (sites, buildings, and structures) and two prehistoric isolates (pottery shards). None of these resources are located within the current APE. The field survey identified no historic or archaeological resources in the project area. **Mitigation Measure CUL-1** would require that all earth disturbing work be temporarily suspended if cultural resources are discovered during construction until the discovery can be evaluated, and appropriate notification measures can be taken. CVWD would comply with applicable regulations governing human remains if human remains were unearthed during construction activities. With implementation of **Mitigation Measure CUL-1,** and compliance with applicable regulations, there would be No Historic Properties Affected.

USDA Rural Development and the California State Historic Preservation Officer have entered into a Programmatic Agreement that outlines procedures that substitute for the Section 106 process outlined in the Council's regulations, 36 CFR Part 800, for all Rural Development undertakings. In accordance with Stipulation IV, B of the State Historic Preservation Officer / Rural Development Programmatic Agreement, if the record search from the appropriate Information Center of the California Historical Resources File System does not identify historic properties in the APE, and/or if an archeological survey

does not identify properties that may be eligible for inclusion in the National Register, then Rural Development may determine that no historic properties are located in the APE and proceed with the undertaking without review by the State Historic Preservation Officer or the Council on Historic Preservation pursuant to section 106. Thus, review by the Eastern Information Center and State Historic Preservation Officer and a concurrence letter are not required.

## 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

Imperial Irrigation District (IID) is a public utility company providing electricity in the project area, with a 6,471-square-mile service area that covers all of Imperial County, along with parts of Riverside and San Diego Counties. The project site is served by the Southern California Gas Company for natural gas, and electricity is supplied by IID.

### 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. **Table 3-8** summarizes the anticipated construction fleet for the proposed project. **Table 3-9** summarizes the estimated material delivery and hauling truck trips, and worker vehicle trips for each type of construction activity.

Construction of the proposed project would include typical construction activities such as demolition, site preparation, excavation, grading, and repaving. As shown in **Table 3-8** and **Table 3-9**, the project would not require any 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 California Air Resources Board In-Use Off-Road Diesel-Fueled Fleets Regulations, which would limit vehicle idling time to 5 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. As such, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy during construction.

**Table 3-8: Construction Fleet Summary**

| Construction Phase | Duration (days) | Anticipated Fleet | Usage (hours/day) |
|---|---|---|---|
| Demolition | 20 days | 1 Concrete/Industrial Saw<br>1 Rubber Tired Dozer<br>2 Tractor/Loader/Backhoes | 8<br>1<br>6 |
| Site Preparation | 2 days | 1 Grader<br>1 Tractor/Loader/Backhoe | 8<br>8 |
| Grading | 25 days | 1 Concrete/Industrial Saw<br>1 Rubber Tired Dozer<br>2 Tractor/Loader/Backhoes | 8<br>1<br>6 |
| Building Construction | 179 days | 1 Crane<br>2 Forklifts<br>2 Tractor/Loader/Backhoes | 4<br>6<br>8 |
| Paving | 10 days | 4 Cement and Mortar Mixer<br>1 Paver<br>1 Rollers<br>1 Tractor/Loader/Backhoes | 6<br>7<br>7<br>7 |

Sources: CalEEMod model defaults for off-road equipment (type, number, and usage) based on site size and land use. Construction durations were based on CalEEMod model defaults and the overall construction schedule anticipated by engineers; see *Section 2 Project Description*. CalEEMod Version 2016.3.2; see Appendix B for model output.

**Table 3-9: Construction Trip Summary**

| Construction Phase | Duration (days) | Daily Worker Vehicle Trips (14.6 miles each) | Daily Vendor Trips (6.2 miles each) | Daily Hauling Truck Trips (20 miles each) |
|---|---|---|---|---|
| Demolition | 20 days | 10 | 0 | 1 |
| Site Preparation | 2 days | 5 | 0 | 0 |
| Grading | 25 days | 20 | 0 | 3 |
| Building Construction | 179 days | 10 | 1 | 0 |
| Paving | 10 days | 18 | 0 | 0 |

Sources: CalEEMod Model default assumptions for daily worker vehicle trips, vendor trips, and demolition hauling trips. Project-specific estimates used for import/export hauling in grading phase. See *Section 2 Project Description*. CalEEMod Version 2016.3.2; see Appendix B for model output.

As described in *Section 2 Project Description,* the proposed project would approximately double the treatment capacity of the IXTP 7991 compared to the previous treatment system (from 1,000 gpm up to approximately 2,000 gpm). Annual energy demand for the existing IXTP 7991 system was up to approximately 144,000 kWh per year, based on energy usage data. While specific operational energy estimates for the proposed project are not yet known, it is anticipated that based on the IXTP 7991 capacity increase, the operational energy use of the proposed project would be up to double the previous energy usage, roughly 288,000 kWh per year. No improvements to the IID electrical service equipment would be required.

The proposed project's energy use would be comparable to similar treatment facilities of this size and nature, and would not be considered excessive, wasteful, or inefficient. The

proposed project would have minimal daily operational energy demand associated with fossil fuels consumed for operation and maintenance activities (see *Section 2 Project Description*), consisting of two round-trip vehicle trips per week and occasional vendor deliveries. These operational practices are typical compared to similar water treatment systems of this size and nature.

An emergency diesel backup generator (approximately 300 kW) would be installed as part of the proposed project. For the purposes of this analysis, it is conservatively assumed that the emergency generator would operate for up to seven days in any given year.

The energy consumption of the proposed project is necessary to improve water supply reliability to the Mecca and Bombay Beach Production Zones, and operational energy use would be typical for facilities of this size and nature. As such, operation of the project would not result in wasteful, inefficient, or unnecessary consumption of energy. The impact of the proposed project on energy resources would be less than significant.

**b) Less than Significant Impact**

The California Air Resources Board's 2017 *Climate Change Scoping Plan* (CARB 2017) 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 nor propose any land use change that would result in an increase in vehicle trips, such as urban sprawl. The proposed project would reduce existing constraints in the potable water system that supplies the community of Mecca and may allow CVWD to consider issuing new water meters in Mecca, which may provide a response to future growth. This potential growth has been planned for in local forecasts. The *Riverside County General Plan* expects the Eastern Coachella Valley region to double its population between 2020 and 2035 and has identified the Mecca area, among others, as a place where development may occur (Riverside County 2015). Therefore, the proposed project would not induce unplanned population growth or land use changes that could result in an unplanned increase in energy demand or GHG emissions. The proposed project would not conflict with or obstruct the *Climate Change Scoping Plan*. Additionally, the *Climate Change Scoping Plan* recognizes that about 2 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." By treating and delivering local groundwater supplies and improving CVWD's system reliability, the proposed project would support the *Climate Change Scoping Plan* objective of improved coordination and management of various water supplies.

The proposed project would not interfere with existing County or regional programs intended to reduce energy use and improve water use efficiency. It would not result in emissions higher than the SCAQMD significance screening thresholds or Riverside County *Climate Action Plan* thresholds. The proposed project would support Riverside

County's *Climate Action Plan* goal of enhancing energy efficiency of infrastructure by installing new efficient equipment at IXTP 7991. Thus, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts related to energy plans would be less than significant.

*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 Division of Mines and Geology Special Publication 42. | [ ] | [ ] | [ X ] | [ ] |
| 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 Coachella Valley is located within California's Colorado Desert Geomorphic Province, bordered to the west by the Peninsular Ranges, to the north by the Transverse Ranges, and to the east by the Mojave Desert. The Colorado Desert is a low-lying barren desert basin.

The majority of Southern California, including the Coachella Valley, is considered a seismically active region and is subject to risk from earthquakes and other geologic effects that are triggered by earthquakes such as ground shaking, fault rupture, landslides, liquefaction, subsidence, and seiches. Two of California's most active faults, the San Andreas and San Jacinto faults, are located in proximity to the project area. The San Andreas and San Jacinto faults have been designated by the California Geological Survey as Alquist-Priolo Earthquake Fault Zones. The San Andreas Fault runs through the Coachella Valley and is located approximately 5 miles east of the project area. The San Jacinto Fault is a major strike-slip fault zone located approximately 15 miles southwest of the project area (USGS 2020).

**a, c) Less than Significant Impact**

The primary seismic hazard to the proposed project is strong ground shaking from earthquakes produced by local and regional faults. The intensity of ground shaking would depend upon the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the project site. Seismically induced ground rupture could occur with the physical displacement of surface deposits in response to an earthquake's seismic waves. Ground rupture is most likely along active faults, and typically occurs during earthquakes of magnitude five or higher. Ground rupture only affects the area immediately adjacent to and within a fault zone.

The proposed project is not located within or adjacent to an active fault zone. Therefore, due to the distance between the proposed project and the San Andreas and San Jacinto faults, impacts related to ground rupture would be less than significant.

Due to the proximity of the proposed project to two active fault zones, the project area is subject to seismic ground shaking. The proposed project would replace existing infrastructure at the IXTP 7991 site. Although impacts related to strong seismic ground shaking could potentially be significant in the project area, the proposed project would not include any land use components that would bring additional people to the area or add structures people would occupy. The proposed project would be designed in conformance with seismic engineering standards to reduce potential damage in the event of ground shaking. Therefore, the proposed project would not directly or indirectly result in substantial adverse effects, including the risk of loss, injury, or death due to seismic ground shaking and impacts would be less than significant.

According to the Riverside County General Plan, the proposed project is located in an area with high susceptibility to liquefaction (Riverside County 2015). This determination is based on the underlying sediments and the presence of shallow groundwater. As stated previously, the faults surrounding the Coachella Valley could cause ground shaking. Ground shaking, shallow groundwater, and unconsolidated soils combined can generate liquefaction, which could damage the proposed project. The proposed project is located in a rural area and any damage to the IXTP 7991 treatment facilities would not have the potential to impact other structures. The pads, structure, and equipment supports are designed to meet California Building Code seismic design criteria as specified by geotechnical investigations that would be performed during detailed design. Adherence to design criteria and Standard Construction Practices would ensure structural resiliency during earthquakes and other ground instability events, such as liquefaction. Therefore, impacts due to liquefaction would be less than significant.

The California Geologic Survey's on-line *Earthquake Hazard Zone Application* provides information on landslide zones (California Geological Survey 2020). The proposed project is not located within a known landslide zone or located on a geologic unit that is unstable or would become unstable. Additionally, the project area is relatively level with no slopes or hills. As such, the proposed project would not result in impacts related to seismic-related ground failure or landslides. Impacts due to ground failure or landslides would be less than significant.

**b) Less than Significant Impact**

The proposed project could result in minor erosion of soils on or off site during project construction due to the potential presence of soil piles or excavated areas that may be exposed during construction. However, construction of the proposed project would include BMPs as specified in the SWPPP to control wind or water erosion of exposed soils. BMPs included in the SWPPP may include practices such as use of silt fences to prevent erosion and sedimentation into water bodies, covering of stockpiles, use of desilting basins, limitations on work during high-wind events, and post-construction revegetation and drainage requirements. With implementation of BMPs, the potential for

soil erosion or topsoil loss during proposed project construction would be less than significant.

**d) Less than Significant Impact**

Expansive soils are generally high in clays or silts that shrink or swell with variation in soil moisture content and can adversely affect the structural integrity of underground facilities including pipelines. The project site is underlain primarily by fine and very fine sandy loam soils (University of California, Davis 2020). Design of the proposed project adheres to CVWD's professional engineering standards, which provide regulations related to soils and foundations, intended to avoid adverse effects of potential expansive soils. Therefore, impacts related to expansive soils would be less than significant.

**e) No Impact**

During operation, water from the backwash system or from Well 7991 may occasionally be drained into the existing on-site retention basin; from there, it would percolate into the groundwater basin. This is consistent with past operation of the existing IXTP 7991 facilities. Septic tanks or other alternative wastewater disposal systems are not a part of the proposed project because they do not exist at the site, nor are designed to be included in this improvement project. Accordingly, no impact to alternative wastewater disposal systems would occur.

**f) Less than Significant Impact**

Significant paleontological resources are fossils or assemblages of fossils that are unique, unusual, rare, uncommon, diagnostically or stratigraphically important, and those that add to an existing body of knowledge in specific areas, stratigraphically, taxonomically, or regionally. They include fossil remains of large to very small aquatic and terrestrial vertebrates, remains of plants and animals previously not represented in certain portions of the stratigraphy, and assemblages of fossils that might aid stratigraphic correlations, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, paleoclimatology, and the relationships of aquatic and terrestrial species (Riverside County 2002).

The proposed project area is located in the Salton Trough, a large tectonic depression that includes the Coachella and Imperial Valleys of Southern California, and the western half of the Mexicali Valley and the Colorado River delta in Mexico (Alles 2011). Over the past 4.5 million years, the Salton Trough has been periodically inundated with fresh and brackish waters, influenced by the Gulf of California, the Colorado River, and ancient Lake Cahuilla. Lake Cahuilla was a former freshwater lake that periodically occupied a major portion of the Salton Trough, approximately 10,000 to 240 years ago (Deméré n.d.).

According to the Geologic Map of the Palm Desert & Coachella 15-minute quadrangles (Dibblee and Minch 2008), the project site is underlain by alluvial sand and clay of valley areas. These relatively young sedimentary deposits are generally too young to contain fossilized material. According to the *Riverside County General Plan*, the proposed project

site is located in an area with high paleontological sensitivity (Riverside County 2016). Although project excavation is expected to reach depths of up to 15 feet below the ground surface in limited spots, excavation would not reach depths where sensitive paleontological resources would be expected to occur. Additionally, the site has a history of disturbance and excavation (during construction and operation of the existing IXTP 7991 facilities). As a result, the potential for encountering fossil resources during project excavation or ground disturbance is low and impacts to paleontological resources would be less than significant.

*Mitigation Measures:* None required or recommended.

## 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**

Pursuant to California Health & Safety Code, Section 38505(g), greenhouse gases (GHGs) include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur. Other GHGs (such as fluorinated gases) are created and emitted solely through human activities. The most common GHGs caused by human activity are carbon dioxide, methane, and nitrous oxide.

In order to assess the impact of each gas on climate change, a measure called Global Warming Potential is used to describe 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 carbon dioxide. “Carbon dioxide equivalent” ($CO_2e$) is the amount of GHG emitted multiplied by its Global Warming Potential (GWP). For example, carbon dioxide has a 100-year GWP of 1; methane has a GWP of 25; and nitrous oxide has a GWP of 298.

*State Regulatory Setting*

Executive Order S-3-05, issued in 2005, set GHG emission reduction targets in California, including reduction of GHG emissions to 1990 levels by 2020; and to 80 percent below 1990 levels by 2050.

Senate Bill 32, passed in 2016, required that the California Air Resources Board, in its next update to the 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.”

In 2017, the California Air Resources Board adopted its most recent *Climate Change Scoping Plan* under the California Global Warming Solutions Act of 2006 (AB 32). The *Climate Change Scoping Plan* contains the goals and strategies California will implement to achieve GHG reductions of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. Goals for reducing GHG emissions in the water sector include developing and supporting more reliable water supplies, increasing conservation, and increasing use of renewable energy. The *Climate Change Scoping Plan* notes that lead agencies under CEQA have the discretion to develop evidence-based numeric thresholds for GHG emissions consistent with this Scoping Plan, the State's long-term GHG goals, and climate change science (CARB 2017).

Executive Order B-55-18, issued in 2018, set a GHG emission reduction target for California to be carbon neutral by 2045.

*Regional Regulatory Setting*

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 project would have a less than significant cumulative GHG impact (SCAQMD 2008b).

*Local Regulatory Setting*

In 2015, Riverside County adopted a *Climate Action Plan* to establish goals and policies that incorporate sustainability and GHG reduction targets into its management processes. The County set a goal to reduce emissions to 1990 levels by 2020, which is in line with the State's AB 32 GHG reduction targets.

The *Climate Action Plan* was updated in 2019 to contain further guidance on Riverside County's GHG inventory reduction goals, thresholds, policies, guidelines, and implementation programs. In particular, the *Climate Action Plan* elaborates on the *Riverside County General Plan* goals and policies relative to GHG emissions and provides a specific implementation tool to guide future decisions of the County. The *Climate Action Plan* sets a GHG emissions significance threshold of 3,000 metric tons (MT) $CO_2e$ per year.

**a) Less than Significant Impact**

The project would generate GHG emissions through the burning of fossil fuels (such as gasoline and diesel fuel used for vehicles and natural gas used to generate electricity) as a result of both construction and operation. Direct emissions would result from fuels used to power construction equipment and worker, vendor, and haul trips to and from the site. Construction is anticipated to last approximately 12 months. Once operational, IXTP 7991 would require routine operation and maintenance visits, which would result in an approximately 0.5$MTCO_2e$ per year of GHG emissions from vehicle trips. Indirect GHG emissions would also result from electricity use.

GHG emissions were estimated using CalEEMod version 2016.3.2, consistent with the methodology and project-specific assumptions used to quantify air pollutant emissions (see *Section 3.3 Air Quality*). Operational emissions would consist chiefly of vehicle trips for operation and maintenance (approximately two trips per week) and electricity use. Unlike criteria pollutants, GHG emissions are not regulated through stationary source permitting; therefore, CalEEMod assigns indirect GHG emissions associated with electricity consumption to individual projects.

As explained above, the Riverside County *Climate Action Plan* has set a threshold of 3,000 $MTCO_2e$ to identify projects that are considered less than significant and would not require mitigation. The results of the inventory of project GHG emissions are summarized below in **Table 3-10**, along with the significance threshold. Complete CalEEMod output tables are included in **Appendix B**. Consistent with the methodology used in the Riverside County *Climate Action Plan*, construction emissions were amortized over the life of the project (defined as 30 years) and added to the operational emissions.

**Table 3-10: Proposed Project GHG Emissions ($MTCO_2e$/year)**

| Source | $MTCO_2e$ |
|---|---|
| Energy | *83.0* |
| Mobile | *0.5* |
| Area | <0.1 |
| Stationary | 19.3 |
| Amortized Construction Emissions | 4.6 |
| **Total** | **107.4** |
| *Riverside County Climate Action Plan Threshold* | *3,000* |
| ***Significant?*** | ***No*** |

GHG emissions from the project would be below the Riverside County *Climate Action Plan* threshold of significance. The project would not generate GHG emissions, directly or indirectly, that may have a significant impact on the environment. The impact of GHG emissions on the environment would be less than significant.

### b) Less than Significant Impact

The State's *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 to or from the site, nor directly result in a land use change that would result in an increase in vehicle trips.

The *Climate Change Scoping Plan* also recognizes water conveyance is a significant energy user in California. 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 would allow CVWD to utilize local groundwater

supplies and coordinate its overall domestic water system supplies for maximum efficiency and reliability, thus supporting the *Climate Change Scoping Plan*.

As discussed in *Section 3.11 Land Use and Planning,* the proposed project would be consistent with existing land use plans (such as the *Riverside County General Plan* and *Riverside County Eastern Coachella Valley Area Plan*).

The proposed project would not interfere with existing County or regional programs intended to reduce energy and improve water use efficiency (such as the Riverside County *Climate Action Plan,* Riverside County *Water Efficient Landscape Requirements Ordinance*, or SCAQMD *Air Quality Management Plan*). The project would also support Riverside County's *Climate Action Plan* goal of enhancing energy efficiency of existing and new infrastructure, as the proposed project would replace an aging system with updated energy-efficient equipment.

The Riverside County *Climate Action Plan* includes measures to be implemented by Riverside County in order to reduce GHG emissions in a variety of sectors. These measures include increasing residential and business participation in energy-efficiency programs, retrofitting buildings for energy efficiency, implementing low-irrigation landscaping requirements, and supporting outreach to inform residents of water efficiency standards. The proposed project would not conflict with County's *Climate Action Plan* goals related to water or energy efficiency measures. The proposed project would not, therefore, conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts to adopted GHG reduction plans or policies would be less than significant.

*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 | [ ] | [ X ] | [ ] | [ ] |

| | | | | |
|---|---|---|---|---|
| adopted emergency response plan or emergency evacuation plan? | | | | |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | [ ] | [ ] | [ X ] | [ ] |

**Discussion**

Hazardous materials are currently used throughout the project area for agricultural, residential, transportation, construction, and other similar land uses. Through natural events, system failures, and accidents (spills), hazardous materials can become a risk to the environment and human health. Numerous local, State, and federal laws exist to regulate the storage, use, handling and transportation of hazardous materials. These include:

- Federal Code Title 40, "Standards for Owners of Hazardous Waste Treatment, Storage and Disposal Facilities," which establishes minimum national standards which define the acceptable management of hazardous waste. This standard applies to owners and operators of all facilities which treat, store, or dispose of hazardous waste.
- Federal Code Title 49, the U.S. Department of Transportation Hazardous Materials Transport Act, which regulates the transportation of hazardous materials, types of material defined as hazardous, and the markings of vehicles transporting hazardous materials.
- Occupational Safety and Health Administration 29 CFR 1910, which establishes regulations for day-to-day workplace safety, including hazardous materials, personal protective equipment, fire protection, materials handling and storage, emergency planning, and other topics.
- California code sections 5001, 5401, 5701, which govern workers' compensation and insurance.
- California code section 25507, which requires hazardous material handlers to immediately report a hazardous material release or threatened hazardous material release.
- California Health and Safety Code Division 20, Chapter 6.5, which regulates safe disposal of hazardous wastes generated within the State of California. The law identifies proper guidance for the handling, storage, use, and disposal of hazardous wastes.
- Riverside County Ordinance 651 "Disclosure of Hazardous Materials and Formulation of Business Emergency Plans," which implements the Hazardous Materials Release Response Plans and Inventory Law, Chapter 6.95 of the California Health and Safety Code. This ordinance establishes requirements for

handling hazardous materials, permitting requirements, and Hazardous Materials Business Plan requirements, and spill reporting.

To increase public safety and awareness of hazardous materials exposure risk, businesses and entities that handle, store, transport, or use hazardous materials are required to file reports with appropriate authorities and maintain emergency response plans in the event of a hazardous materials release.

A regulatory records search was performed for the project area using the SWRCB *GeoTracker* database (SWRCB 2020) and the California Department of Toxic Substances Control *EnviroStor* database (DTSC 2020). These lists are a compilation of information from various sources listing potential and confirmed hazardous waste and hazardous substances sites in California. As shown in Figure 3-5 and Figure 3-6, there are no cleanup sites within 0.5 miles of the IXTP 7991 site. The nearest active cleanup sites listed in the SWRCB *GeoTracker* database are Former Coachella Valley Minimex (T0606500981) and Former Mecca Chevron (T10000003076), which are located approximately 0.6 miles northwest of the IXTP 7991 site. A third active cleanup site is RVSD CO Fire #40 (T0606500985), which is located approximately 0.9 miles northwest of the IXTP 7991 site. There are no hazardous sites listed on the EnviroStor database within 0.5 miles of the proposed project. The nearest cleanup site listed on the EnviroStor database is located approximately 2 miles northeast of the IXTP 7991 site; this cleanup site is inactive (EnviroStor ID 80001166).

**Figure 3-5: GeoTracker Database Search Results**

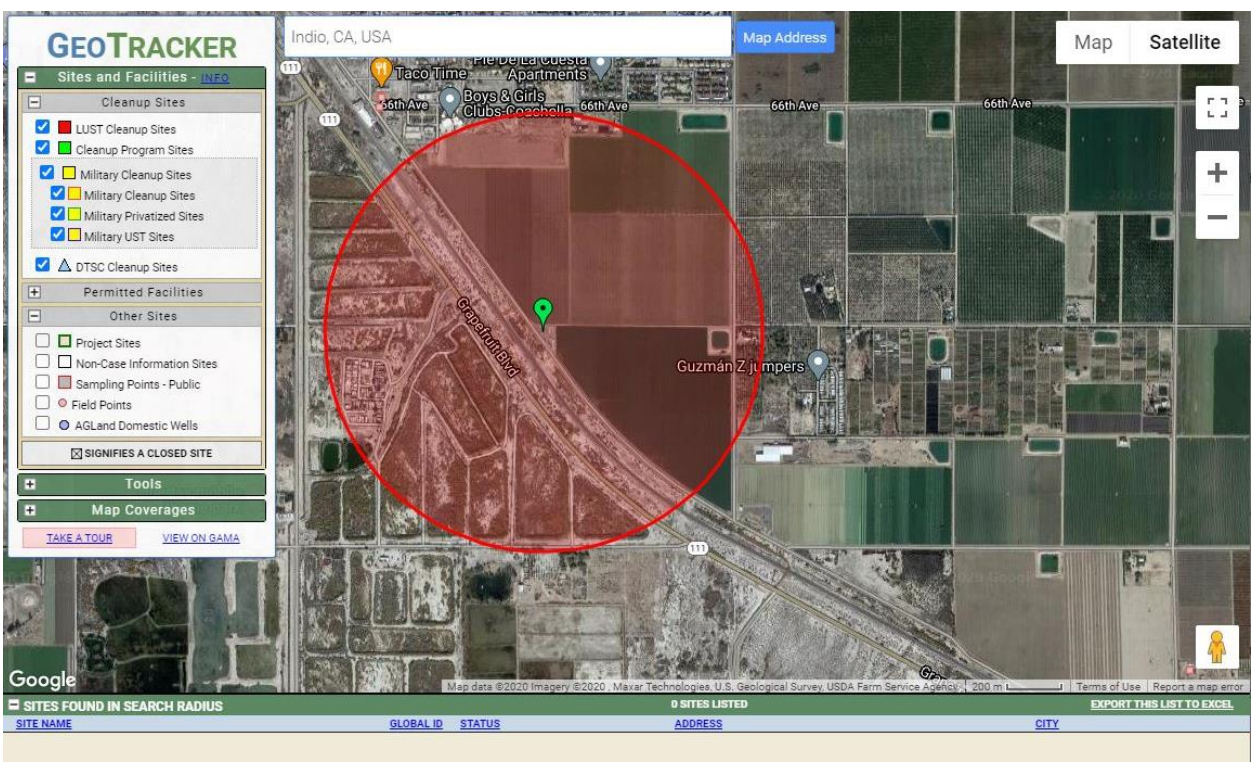
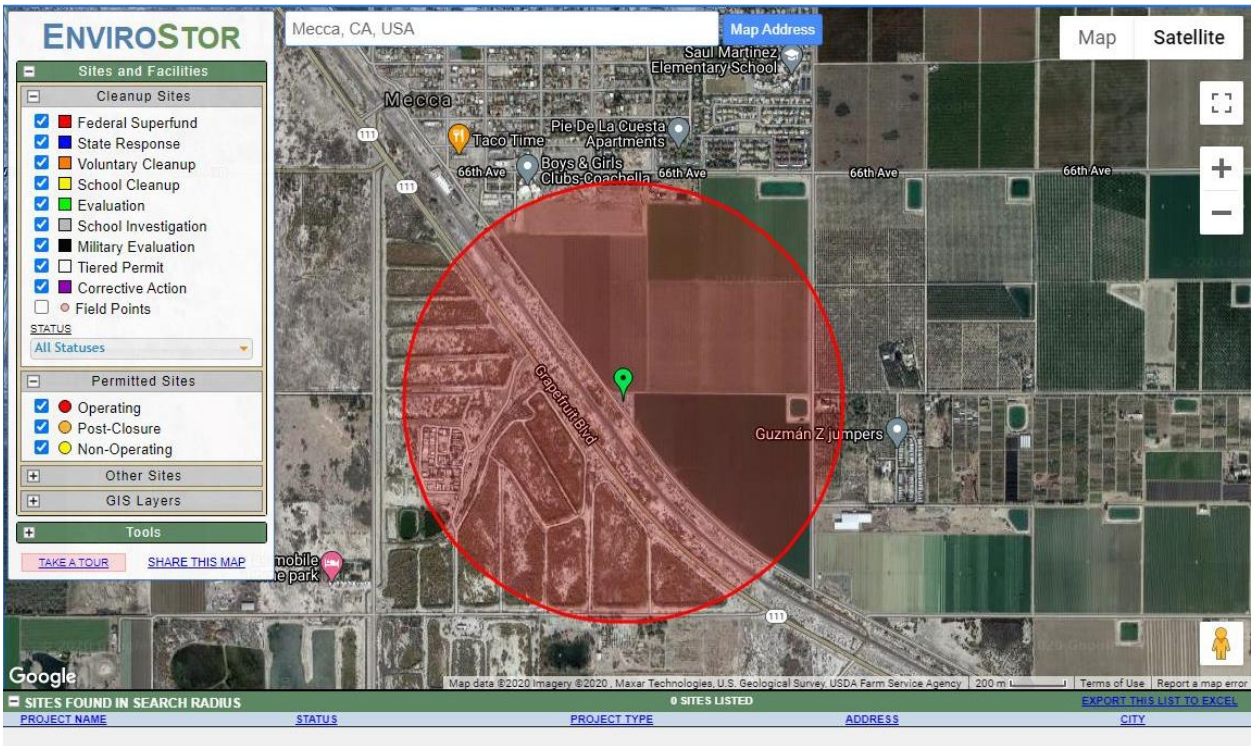


**Figure 3-6: EnviroStor Database Search Results**




The CalFire Fire Resources Assessment Program (CalFire 2015) assesses the amount and extent of California's forests and rangelands, analyzes their conditions, and identifies alternative management and policy guidelines. Through the Fire Resources Assessment Program, CalFire produces maps designating Very High Fire Hazard Severity Zones within State and Local Responsibility Areas. The project is located within the Western Riverside County's Local Responsibility Area. The Western Riverside County Local Responsibility Area map designates the project area as a non-Very High Fire Hazard Severity Zone (CalFire 2009).

The Jacqueline Cochran Regional Airport is located approximately 6 miles northwest of the project area.

### a) Less than Significant Impact

Construction of the proposed project would temporarily increase the routine transport and use of hazardous materials commonly used in construction activities. Limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluids, paint, and other similar materials, would be brought into the project area, used, and stored during construction of the proposed project. During operation, the proposed project would require periodic deliveries of chemicals used in the IXTP to treat arsenic in the groundwater, including sulfuric acid and sodium hydroxide for pH adjustment and calcium hypochlorite for disinfection. These materials would be delivered approximately once per month and would be stored on site within the proposed new chemical building. The

adsorption media would be changed routinely and transported off-site to a licensed facility before it accumulates concentrations of arsenic that would constitute regulated hazardous waste. Therefore, the adsorption media would not pose a hazard during routine use or transport.

The proposed project would include a tie-in to the existing asbestos cement water main in Hammond Road. This work may include a limited amount of alteration or removal of existing asbestos cement pipe. It is possible that demolition and disposal of limited amounts of asbestos cement pipe would be required during construction. In this case, all asbestos-containing materials would be stored, tracked, and disposed of in compliance with SCAQMD Rule 1403. With these mandated practices in place, the demolition and disposal of a limited quantity of asbestos cement pipe would not create a significant hazard.

To minimize the risks of exposure to hazardous materials from routine use or accident conditions, federal, State, and local regulations have been put into place to regulate hazardous material use, storage, transportation, and handling. CVWD would be required to comply with all applicable federal, State, and local regulations pertaining to hazardous materials (Federal Code Title 40 and 49; Occupational Safety and Health Administration 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). Conformance with the above regulations would include such things as 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 project and site-specific characteristics (e.g., equipment types), they would include standard industry measures and guidelines contained in the NPDES Construction General Permit. 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. With compliance with existing regulations, impacts on the public and the environment would be less than significant, and no mitigation would be required.

### b) Less than Significant with Mitigation Incorporated

Construction of the proposed project would have the potential to create a hazard to the public or the environment in the event of upset and accident conditions involving the release of hazardous materials used in construction, which include diesel fuel and minor amounts of paints, fuels, solvents, and glues. Accidents during construction activities could result in the release of hazardous materials into the environment. **Mitigation Measure HAZ-1** requires development of a Hazardous Materials Management Spill Control Plan that includes project-specific contingencies. Potential impacts from accident conditions during project construction would be less than significant with mitigation incorporated.

Upon completion of construction, the proposed project would require use of similar materials such as diesel fuel, solvents, and glues, as well as hazardous materials including sulfuric acid, sodium hydroxide, and calcium hypochlorite to provide pH adjustment and disinfection. During operation of the project, there is low risk of an accidental chemical spill during transport or use at the IXTP 7991 site. The proposed project would be required to comply with various existing regulations, described in Section 3.9(a), which would minimize the risk of accidental hazardous material release during operations. In addition, a Hazardous Materials Business Plan, Emergency Response Plan, and Risk Management Plan would need to be prepared and implemented based on the State of California Accidental Release Prevention requirements. The California Accidental Release Prevention Program incorporated and modified the Federal Risk Management Plan and designed it to minimize harm to people and the environment through enforcing regulations that minimize risks for facilities that handle hazardous material. Safety measures would be put in place to ensure proper storage containers, safety labeling, materials needed to readily absorb spills, and training for site workers. Impacts from accidental hazardous material release thus would be less than significant.

**c) No Impact**

The Project site is not located within one-quarter mile of an existing or proposed school. Mecca Elementary School is located approximately one mile north of the project site, and Saul Martinez Elementary School is located approximately 0.8 miles northeast of the project site. Therefore, the proposed project would not have the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. There would be no impact on schools, and no mitigation is required.

**d) No Impact**

The GeoTracker database search indicated there are no active hazardous materials cleanup sites within one-quarter mile of the proposed project. There are no active cleanup sites listed on the Department of Toxic Substances Control's EnviroStor database within one-quarter mile of the project area. Project construction and operation would be confined to the IXTP 7991 site and immediately adjacent Hammond Road right of way, and 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 because there are no hazardous materials cleanup sites located near the proposed project. The proposed project would have no impact on the public or environment due to a hazardous materials cleanup site.

**e) No Impact**

The Jacqueline Cochran Regional Airport is located approximately 6 miles northwest of the project area. The IXTP 7991 site is not located within an airport influence area, as outlined in the Riverside County Airport Land Use Compatibility Plan (Riverside County Airport Land Use Commission 2006). The proposed project would replace components

of the existing IXTP 7991 and would not create an aircraft safety hazard during construction or operation. The proposed project would have no impact on airport safety.

**f) Less than Significant with Mitigation Incorporated**

Construction of the proposed project would involve installation of water treatment facilities at the IXTP 7991 site. Construction and staging would occur almost entirely within the IXTP 7991 site with the exception of the connection to the existing pipeline in Hammond Road. Work in Hammond Road would last for 3 to 5 days and may require closure of individual traffic lanes. The proposed project would thus potentially impede access to roadways that are used by emergency response vehicles or used in emergency evacuations. With the implementation of traffic control measures described in **Mitigation Measure TRA-1,** including coordination with emergency response entities, the proposed project construction impacts on emergency response or evacuation plans would be reduced to less than significant.

Long term, the proposed project would not physically impair or otherwise interfere with emergency response or evacuation in the project vicinity as all project components would be located within the existing fence at the IXTP 7991 site. The surface of Hammond Road would be restored to its original condition and would accommodate emergency response vehicles. Thus, operational impacts on emergency response or evacuation plans would be less than significant.

**g) Less than Significant Impact**

CalFire has identified wildfire risk areas through the Fire Hazard Severity Zone maps. The Western Riverside County Local Responsibility Area map designates the project area as a non-Very High Fire Hazard Severity Zone. The project would be constructed within the developed IXTP 7991 site, which does not contain and is not adjacent to wildlands. Riverside County Fire Department Station 40 is located at 91350 Avenue 66, approximately 0.5 miles north of the project site. The project site has a low risk of wildfire. Therefore, impacts due to wildfire exposure would be less than significant.

*Mitigation Measures*:

See **Mitigation Measure TRA-1** in *Section 3.17 Transportation.*

**Mitigation Measure HAZ-1: Hazardous Materials Management and Spill Control Plan**

Prior to construction the construction contractor is required to submit to CVWD a Hazardous Materials Management Spill Control Plan that includes a project-specific contingency plan for hazardous materials and waste operations. The plan shall be applicable to construction activities and shall establish policies and procedures according to applicable codes and regulations, including but not limited to the California Building and Fire Codes, and federal and California Occupational Safety and Health Administration regulations. Elements of the Plan shall include, but not be 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.

**Supplemental NEPA Analysis**

*USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments*, requires evaluation of effects on human health and safety associated with electromagnetic fields and environmental risk management.

Electromagnetic fields are associated with any electric device, such as power lines, electric wiring, electric equipment, or cell and microwave towers. The focus of this section is on electromagnetic fields associated with the generation, transmission, and use of electric power. The proposed project would not include electric components such as overhead high-voltage electric transmission lines, substations, or cellular towers that would be expected to generate electromagnetic fields. The proposed project would replace the existing pole-mounted transformer with a new pad-mounted transformer of similar size and capacity. The proposed project would not have the potential to create impacts associated with electromagnetic fields, and the impact would be less than significant.

The proposed project does not involve purchase of property; CVWD purchased the IXTP 7991 site in 1970 and still owns the site today. There are no above-ground or underground storage tanks or U.S. EPA or State Superfund sites or priority cleanup sites on or near the proposed project site. Potential and confirmed hazardous waste and hazardous substances sites are described above in *Section 3.9 Hazards and Hazardous Materials*, and none are located in proximity to the proposed project site. The project would not violate Federal, Tribal, State, or local regulations on the use and storage of hazardous substances or transportation, storage, and disposal of hazardous wastes. As described in Impacts 3.9(a) through (g), the project would not result in any significant environmental health hazard, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste. **Mitigation Measure HAZ-1** would implement a Hazardous Materials Management and Spill Control Plan; with implementation of this mitigation measure, the project impact would be less than significant impact.

## 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 within the Whitewater River Watershed, which encompasses the entirety of the Coachella Valley. The drainage area of the Whitewater River Watershed is approximately 58 square miles and includes four sub-watersheds: Morongo, Shavers, San Gorgonio, and Coachella. The Whitewater River/Coachella Valley Stormwater Channel, approximately 2 miles west of the project site, is the primary drainage course in the watershed. It runs southeast through the Coachella Valley and flows to the Salton Sea. There is no surface water on the project site.

The Federal Emergency Management Agency (FEMA) National Flood Insurance Program provides Flood Insurance Rate Maps that identify flood hazard areas, called Special Flood Hazard Areas. Special Flood Hazard Areas are defined as areas that will be inundated by the flood event having a 1 percent chance of being equaled or exceeded in any given year, also referred to as the base flood or 100-year flood. Moderate flood hazard areas are areas between the limits of base flood and the 0.2 percent annual chance (or 500-year) flood. The areas of minimal flood hazard are the areas outside the Special Flood Hazard Areas and moderate flood hazard areas (FEMA 2020). Special Flood Hazard Areas in the vicinity of the project site are shown in **Figure 3-7**.

*Groundwater*

The Coachella Valley Groundwater Basin (California Department of Water Resources Basin No. 7-21) underlies the Whitewater River Watershed. The Coachella Valley Groundwater Basin has an estimated storage capacity of 40 million acre-feet of water within the upper 1,000 feet (CVWD 2016). The Coachella Valley Groundwater Basin is divided into four subbasins: Indio (Basin No. 7-21.01), Mission Creek (No. 7-21.02), Desert Hot Springs (No. 7-21.03), and San Gorgonio (No. 7-21.04). The Indio Subbasin underlies the project site.

Natural groundwater recharge occurs from surface runoff and subsurface inflow; however, the Indio Subbasin is primarily recharged through groundwater replenishment efforts by CVWD and Desert Water Agency. CVWD operates and maintains three replenishment facilities within the Indio Subbasin: the Whitewater River Groundwater

Replenishment Facility, the Thomas E. Levy Groundwater Replenishment Facility, and the Palm Desert Groundwater Replenishment Facility. These facilities recharge the groundwater basin with imported water.

The Coachella Valley Groundwater Basin is designated by the California Department of Water Resources as a medium priority basin and is subject to the provisions of the Sustainable Groundwater Management Act. CVWD is the Groundwater Sustainability Agency for the majority of the eastern portion of the Indio Subbasin, including the area that underlies the project area. In 2016, CVWD submitted an *Alternative Groundwater Sustainability Plan* for the Indio Subbasin, and in 2019 the Department of Water Resources determined that the *Alternative Groundwater Sustainability Plan* satisfies the objectives of the Sustainable Groundwater Management Act.

The RWQCB's designated beneficial uses of the Coachella Valley Groundwater Basin include municipal and domestic supply, industrial service supply, and agriculture supply (RWQCB 2019). Groundwater supply used for potable uses is generally of high quality; however, CVWD treats delivered groundwater with free chlorine as a precautionary measure prior to distribution for potable use. Some areas of the Coachella Valley Groundwater Basin naturally contain elevated levels of salinity. In isolated areas such as in the vicinity of IXTP 7991 (i.e., within the portion of the Indio Subbasin near the Salton Sea), groundwater quality issues have occurred due to naturally occurring substances such as arsenic, chromium, and fluoride (CVWD 2016, CVWD 2011). Additionally, some localized areas have seen elevated nitrate levels. As discussed in *Chapter 2 Project Description*, the groundwater underlying IXTP 7991 requires treatment for elevated levels of arsenic, which exceed state MCLs.

**Figure 3-7: FEMA Flood Insurance Rate Map**

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions.
Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:** FEMA

**a) Less than Significant Impact**

Potential water quality impacts associated with construction of the proposed project would be limited to short-term erosion/sedimentation that could occur during project construction. The temporary disturbance area, including construction and staging areas, would be confined to the IXTP 7991 site, which is approximately one acre, and a portion of the Hammond Road right of way immediately adjacent to the site. Construction of the proposed project would require coverage under the SWRCB's NPDES General Permit for Discharges of Storm Water Associated with Construction Activity - Construction General Permit (Order 2009-0009-DWQ).

The Construction General Permit requires preparation and implementation of a SWPPP containing BMPs to control sediment and other construction-related pollutants in storm water discharges. Such BMPs would include, but are not limited to, general housekeeping practices such as sweeping up of site debris, proper waste disposal procedures, use of tarps on any stockpiles, containment of building materials, and inspection for leaks and spills from construction vehicles and equipment, as well as erosion and sediment controls, and spill response. With implementation of the SWPPP, storm water discharges from the proposed project site during construction are not expected to violate existing water quality standards or waste discharge requirements set by the RWQCB. Operation of the project would not entail any discharges to surface water or groundwater and thus would not violate water quality standards or waste discharge requirements or otherwise degrade surface water or groundwater quality. Impacts on water quality would be less than significant.

**b) Less than Significant Impact**

The proposed project would enable CVWD to increase production from Well 7991 from 1,000 gpm to up to 1,500 gpm. CVWD manages groundwater quantity and quality in accordance with the *Alternative Groundwater Sustainability Plan*. The Sustainable Groundwater Management Act requires that groundwater be produced in a sustainable manner within 20 years of Groundwater Sustainability Plan adoption. Although the proposed project would increase production capacity of Well 7991, the proposed project would extract groundwater in a manner consistent with the *Alternative Groundwater Sustainability Plan* for the Indio Subbasin. The Alternative Groundwater Sustainability Plan identifies undesirable results for groundwater management in the Indio Subbasin, such as chronic lowering of groundwater levels, reduction of groundwater storage, and depletions of interconnected surface water. As required by the Sustainable Groundwater Management Act, CVWD manages its groundwater resources in order to eliminate undesirable effects. CVWD manages the overall groundwater pumping from the Indio Subbasin (which would include pumping from IXTP 7991) such that a positive water balance is maintained, and groundwater level targets are met. Therefore, the proposed project would not be expected to decrease groundwater supplies. Because the proposed project would replace existing facilities and would not result in a substantive increased in impervious surface at the project site, it would not interfere with groundwater recharge efforts. Thus, the proposed project would not impede sustainable groundwater

management of the basin and impacts on groundwater resources would be less than significant.

**c) Less than Significant Impact**

The proposed project would not result in a change in the local drainage patterns of the project area. The IXTP 7991 components would be installed at various locations at the site as shown in Figure 2-6. Change to impervious surface area at the site would be minor and would occur as a result of the chemical building, adsorption vessels, and other components, which have small footprints. Currently, runoff from the site drains into the existing on-site retention basin. The design of the proposed project would maintain this drainage pattern, and the ground surfaces would be restored to pre-construction conditions (packed dirt/gravel). Therefore, no changes in drainage patterns would occur and no impacts to an existing storm drain system would be expected. All construction activities would be conducted in accordance with BMPs specified in the construction SWPPP to prevent erosion, siltation, and other construction-related pollutants (such as potential leaks from construction equipment).

The IXTP 7991 site is not located within a Special Flood Hazard Area as designated by FEMA, as shown in **Figure 3-7.** The proposed project would not create major changes to drainage or impervious surface area at the site. Therefore, the proposed project would not have the potential to impede or redirect flood flows. Potential impacts to drainage patterns resulting in erosion, flooding, or water quality issues would be less than significant and no mitigation measures would be required.

**d) Less than Significant Impact**

The proposed project is not located within a Special Flood Hazard Area. The proposed project is located approximately 80 miles inland from the Pacific Ocean, and thus would not be subject to tsunami hazards. A seiche is a wave that reverberates on the surface of water in an enclosed or semi-enclosed basin, such as a reservoir or lake, in response to ground shaking during an earthquake. According to the East Coachella Valley Area Plan, a seiche in the Salton Sea could cause flooding of areas immediately adjacent to the Sea (Riverside County 2016). The IXTP 7991 site is located approximately 3.5 miles from the Salton Sea; therefore, the proposed project would not be subject to inundation by a seiche. The proposed project is not at risk of inundation from a flood, tsunami, or seiche. Thus, the potential for release of pollutants due to project inundation would be less than significant.

**e) Less than Significant Impact**

The applicable plans are the *Colorado River Basin Water Quality Control Plan*, which designates water quality standards for the project area, and the *Alternative Groundwater Sustainability Plan* for the Indio Subbasin. CVWD is the Groundwater Sustainability Agency for the majority of the eastern portion of the Indio Subbasin, including the area that underlies the IXTP 7991 site. As discussed in Sections 3.10(a) and (b) above, the impact on water quality and groundwater resources would be less than significant.

Therefore, the proposed project would not conflict with a water quality control plan or sustainable groundwater management plan and the impact would be less than significant.

*Mitigation Measures:* None recommended or required.

**Supplemental NEPA Analysis**

*USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments*, requires that environmental documents include discussion of floodplain management and sole source aquifers. These resource areas are discussed in the following subsections.

*Floodplain Management*

Executive Order 11988 requires federal agencies to recognize the values of floodplains and to consider the public benefits from restoring and preserving floodplains.

As described in *Section 3.9 Hydrology and Water Quality* and shown in **Figure 3-7**, no portion of the proposed project site is in a Special Flood Hazard Area (100-year or 500-year flood zone). Therefore, the proposed project would not affect a floodplain, and no mitigation is required.

*Sole Source Aquifers*

Section 1424(e) of the Safe Drinking Water Act established the U.S. EPA's Sole Source Aquifer Program. This program protects communities from groundwater contamination from federally-funded projects.

Within U.S. EPA's Region 9, which includes California, there are nine sole source aquifers. None of these sole source aquifers are located in the vicinity of the proposed project. Therefore, the Sole Source Aquifer Program does not apply to the proposed project, and the lead agency would be in compliance with Section 1424(e) of the Safe Drinking Water Act.

## 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 project area is located in unincorporated Riverside County near the unincorporated community of Mecca. The *Riverside County General Plan* and *Riverside County Eastern Coachella Valley Area Plan* (Riverside County 2015, Riverside County 2016) identify land uses and zoning in the area. The IXTP 7991 site's land use and zoning are both designated as mixed-use. Surrounding areas are identified in the *Riverside County General Plan* as agricultural land or mixed-use, and are also zoned for agricultural or mixed use. Adjacent mixed-use land is currently occupied by agriculture. The Saint Anthony Mobile Home Park is located approximately 2,000 feet west of the proposed project site on land designated for agricultural use. Homes also exist approximately 2,200 feet east of the project site on land zoned for agricultural and medium-density residential use.

According to the Riverside County General Plan, the intent of the mixed-use designation is not to identify a particular mixture or intensity of land uses, but to designate areas where a mixture of residential, commercial, office, entertainment, educational, and/or recreational uses, or other uses is planned.

### a) No Impact

The proposed project would replace existing water treatment facilities at the IXTP 7991 site. The project features would all be located within the IXTP 7991 site and the immediately adjacent Hammond Road right of way. The IXTP 7991 site parcel is surrounded by existing security fencing; this fencing would remain in place as part of the proposed project. The project would not add facilities that would create a physical barrier within the surrounding area. The proposed project would not physically divide a community and thus would have no impact on an established community.

**b) No Impact**

The proposed project would replace the existing IXTP 7991 facilities with new facilities at the same site. The project would not change the land use at the site, alter existing zoning or land use plans, or encourage modifications to such plans. The new IXTP 7991 facilities would be similar in appearance and function to the existing facilities, and the proposed project would restore critical water supply facilities to operation. Therefore, the proposed project would be consistent with all applicable land use plans, policies, and regulations of agencies with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. No impacts on land use plans, policies, or regulations would occur.

*Mitigation Measures:* None required or recommended.

**Supplemental NEPA Analysis**

Per *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments,* an EA should assess effects on formally classified lands that have been accorded special protection through formal legislative designations and are either administered by federal, state, or local agencies, tribes, or private parties. Formally classified lands include, but are not limited to, National Parks and Monuments, National Forests, National Historic Sites, National Wildlife Refuges, Wilderness Areas, Wild and Scenic Rivers, Bureau of Land Management administered lands, and Native American owned lands.

As described in *Section 2.3 Environmental Setting*, the proposed project site consists of a one-acre CVWD-owned property (APN 727-272-008), and limited portions of the adjacent roadway right of way. Impacts from project construction and operation would be limited to the project site and a small portion of Hammond Road immediately adjacent to the proposed project site. None of the parcels in the immediate vicinity of the project site are formally classified lands. No designated Wild and Scenic Rivers exist in the vicinity of the site. Formally classified lands in the region include Joshua Tree National Park (10 miles northeast of the IXTP 7991 site), the Mecca Hills Wilderness (4 miles northeast of the site), the Santa Rosa Wilderness (8 miles southwest of the site), and lands managed by the Bureau of Land Management in the Mecca Hills and Santa Rosa and San Jacinto Mountains. The Torres Martinez Reservation is located approximately 1.5 miles west of the proposed project site and Cabazon Reservation northwest of Mecca approximately 1.5 miles from the proposed project site. The proposed project would have no effect on any of these lands.

## 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

Mineral resource extraction is an important component of Riverside County's economy. Riverside County has extensive deposits of clay, limestone, iron, sand, and aggregates (Riverside County 2015). However, according to the *Riverside County General Plan Open Space Element* (Riverside County 2015) and the California Department of Conservation *Mineral Land Classification* online mapping tool (CDOC 2020), the project area is located in an unstudied area and has no Mineral Resource Zone designation. There are no existing mineral resource extraction facilities within the project vicinity.

### a, b) No Impact

The project site is located in an unstudied area and has no Mineral Resource Zone designation. The site is owned by CVWD and is currently occupied with existing water production and treatment facilities; the site is therefore unavailable for mineral extraction. Construction activities would be confined to the IXTP 7991 site and nearby portion of Hammond Road and would not have the potential to impact any unknown mineral resources in the surrounding areas. Therefore, the proposed project would not result in a substantial loss of availability of locally or regionally important mineral resources and there would be no impact on these resources.

*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 can be defined as unwanted sound. Potential noise levels of the proposed project are compared to local ambient noise standards, within the context of the existing ambient noise setting. The term “ambient noise” reflects the existing level of environmental noise at a given location from all sources (Riverside County 2015). A decibel (dB) is a unit for measuring the relative amplitude of a sound equal to the smallest difference normally detectable by the human ear. A-weighting (dBA) means the standard A-weighted frequency response of a sound level meter, which de-emphasizes low and high frequencies of sound to mimic the perception of the human ear. Maximum sound level ($L_{MAX}$) means the maximum sound level measured on a sound level meter (Riverside County 2007). Community Noise Equivalent Level (CNEL) is the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7 p.m. to 10 p.m. and after the addition of 10 decibels to

sound levels in the night from 10 p.m. to 7 a.m. Day-Night Average Level ($L_{dn}$) is the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of 10 decibels to sound levels in the night from 10 p.m. to 7 a.m. For CNEL and $L_{dn}$, decibels are added to nighttime sound to account for humans' greater sensitivity to nighttime noise. CNEL and $L_{dn}$ both represent daily levels of noise exposure averaged on an annual or daily basis (Riverside County 2015).

A series of land uses have been deemed to be noise sensitive by the State of California. These land uses require a serene environment as part of the overall facility or residential experience. Many of these facilities depend on low levels of sound to promote the wellbeing of the occupants. These uses include, but are not necessarily limited to, schools, hospitals, rest homes, long term care facilities, mental care facilities, residential uses, places of worship, libraries, and passive recreation areas (Riverside County 2015).

Groundborne vibration can be described by both its amplitude and frequency. Amplitude may be characterized by peak particle velocity, which is measured in inches or millimeters per second. Vibration can be felt outdoors, but the perceived intensity of vibration impacts, including groundborne noise, is much greater indoors, due to the shaking of the structure. 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. These uses include, but are not limited to, concert halls, hospitals, libraries, vibration-sensitive research operations, residential areas, schools, and offices (Riverside County 2015).

The noise element of the *Riverside County General Plan* (Riverside County 2015) provides a systematic approach to identifying and appraising noise problems in the community; quantifying existing and projected noise levels; addressing excessive noise exposure; and community planning for the regulation of noise. The element includes policies, standards, criteria, programs, diagrams, and maps related to protecting public health and welfare from noise (see **Table 3-11** and **Table 3-12**).

**Table 3-11: Riverside County Land Use Compatibility for Community Noise Exposure – Range of "Normally Acceptable" Community Noise Exposure Levels ($L_{dn}$ or CNEL, dBA)**

| Land Use Category | 55 | 60 | 65 | 70 | 75 | 80 |
|---|---|---|---|---|---|---|
| Residential-low density single family, duplex, mobile homes | ■ | ■ | | | | |
| Residential-multiple family | ■ | ■ | ■ | | | |
| Transient lodging-motels, hotels | ■ | ■ | ■ | | | |
| Schools, libraries, churches, hospitals, nursing homes | ■ | ■ | ■ | ■ | | |
| Playgrounds, neighborhood parks | ■ | ■ | ■ | ■ | | |
| Golf courses, riding stables, water recreation, cemeteries | ■ | ■ | ■ | ■ | ■ | |
| Office buildings, businesses, commercial, and professional | ■ | ■ | ■ | ■ | | |
| Industrial, manufacturing, utilities, agriculture | ■ | ■ | ■ | ■ | ■ | |

Source: Riverside County General Plan Noise Element 2015

**Table 3-12: Reaction to Typical Vibration Levels**

| Vibration Level Peak Particle Velocity (inches/second) | Human Reaction |
|---|---|
| 0.0059-0.0188 | Threshold of perception, possibility of intrusion |
| 0.0787 | Vibrations readily perceptible |
| 0.0984 | Continuous vibration begins to annoy people |
| 0.1968 | Vibrations annoying to people in buildings |
| 0.3937-0.5905 | Vibrations considered unpleasant when continuously subjected and unacceptable by some walking on bridges |

Source: Riverside County General Plan Noise Element 2015.

Riverside County Ordinance 847 Regulating Noise establishes countywide standards regulating noise to protect the health, safety, and general welfare of Riverside County residents. According to Ordinance 847, sound emanating from capital improvement projects of a government agency are exempt from the provisions of the ordinance. Therefore, the sound levels set in the Riverside County Noise Ordinance would not apply to the proposed project. However, the Ordinance can be used to understand acceptable sound levels in the region. The proposed project site is surrounded by agricultural uses, with more distant commercial and residential land uses. Using the Ordinance as a guideline, the Medium Density Residential land use designation has a maximum decibel level set at 55 dB $L_{MAX}$ and Agriculture has a maximum decibel level set at 45 dB $L_{MAX}$. The OSHA standard for workers with 8 hours of exposure per day is 85 dBA. The Noise Ordinance limits noise from private construction within one-quarter mile of a residence to daytime hours (6 a.m. to 6 p.m. from June to September, and 7 a.m. to 6 p.m. from October through May).

*Existing Conditions*

Ambient noise is the total noise generated within the area and is usually comprised of sounds from both natural and man-made sources. Noise levels in a region may vary widely depending on location and time of day. The existing noise sources in the project area consist of agricultural activities and traffic noise from Hammond Road, State Route 111, and other surrounding roadways.

Baseline ambient noise levels were assessed for the *Riverside County General Plan* (Riverside County 2015). **Table 3-13** summarizes the existing traffic noise levels in the general vicinity of the project site. The *Riverside County General Plan* also includes typical noise contours for various street types. Based on these contours, the proposed project site would be located within the 65 dBA and 60 dBA contours of Hammond Road (a secondary roadway), and within the 60 dBA corridor of State Route 111 (an urban

arterial) (Riverside County 2015). The proposed project site would also be located within the 70 dBA corridor of the existing Union Pacific Railroad tracks.

**Table 3-13: Riverside County Base Year Condition (2007) Traffic Noise Levels**

| Roadway Segment | Average Daily Trips | $L_{dn}$ (dBA) 50 feet from centerline of outermost lane | Centerline to 60 $L_{dn}$ (feet) |
|---|---|---|---|
| State Route 86 between southern city limits of Coachella and Avenue 66 (approx. 1.4 miles northwest of IXTP 7991) | 37,900 | 78.6 | 1,144 |
| State Route 86 between Avenue 74 and Pierce Street (approx. 1.5 miles west of IXTP 7991) | 7,700 | 71.5 | 354 |

Source: Riverside County General Plan Appendix I-1.

The closest airport to the project area is the Jacqueline Cochran Regional Airport. The proposed project is not located within the airport's forecasted noise contours (Riverside County 2015).

### a) Less than Significant

The project has the potential to expose people to noise resulting from construction and operation activities. Construction is anticipated to last 12 months and would result in temporary noise increases. Construction noise levels would fluctuate depending on the construction phase, equipment type, and duration of use; distance between noise source and receptor; and presence or absence of existing barriers between noise source and receptor. A list of anticipated construction equipment can be found in *Section 2 Project Description*. The typical noise level of each piece of construction equipment that would be used for the project is shown in **Table 3-14**.

**Table 3-14: Typical Construction Equipment Noise Levels**

| Equipment | Typical Noise Levels (dBA, at 50 feet) |
|---|---|
| Backhoe | 78 |
| Dozer | 82 |
| Concrete Mixer Truck | 79 |
| Concrete Saw | 90 |
| Crane | 81 |
| Dump Trucks | 76 |
| Forklift | 75[1] |
| Grader | 85 |
| Front end loader | 79 |
| Paver | 77 |
| Roller | 80 |
| Tractor | 84 |
| Water Trucks | 84[2] |

Source: FHWA 2006a.
1. Forklift noise level was assumed to be comparable to a man lift.
2. Water truck noise level was assumed to be comparable to a tractor.

In general, project construction noise would be temporary and sporadic and would vary depending on the facility being constructed. The loudest piece of equipment that may be used would be a concrete saw, which generates 90 dBA at a distance of 50 feet. The nearest sensitive receptors are located over 2,000 feet from the IXTP 7991 site. Construction noise would attenuate significantly over this distance; for instance, noise from a concrete saw would attenuate to an $L_{MAX}$ of 57.5 dBA. This is within the range of normally acceptable daytime noise levels defined in the *Riverside County General Plan* (**Table 3-11**) and would not stand out above ambient conditions at sensitive receptors.

During construction, truck traffic would generate noise along haul routes. Construction would involve three to four round-trip material delivery and/or soil export truck trips per day. If noise-sensitive land uses were located adjacent to proposed project construction areas and along haul routes they could be subject to truck noise during construction.

The proposed project would not be within one-quarter mile of a residence, and construction would be limited to daytime hours consistent with the Noise Ordinance. In addition, the existing conditions in the project area are not quiet; the area is already subject to elevated ambient noise levels due to traffic noise, and haul routes are not expected to be immediately adjacent to sensitive receptors. Construction would not occur in close proximity to residences and would not increase sound levels at sensitive receptors above acceptable levels. Therefore, the construction-related noise levels would be less than significant.

Once operational, the proposed project would generate noise from the well pump. The well pump would be located below ground and would be submerged within the well; this would provide significant noise attenuation such that the pump would not be expected to impact ambient noise conditions of neighboring properties. The nearest sensitive receptors are located approximately 2,000 feet from the proposed project site; therefore, they would not experience noise impacts from the well pump. An emergency generator would also be installed at the site, which typically generates 73 dBA of noise at a distance of 50 feet (FHWA 2006a). The emergency generator would operate only on an as-needed basis, and would be housed within a building, which would provide significant noise attenuation (FHWA 2006b). Therefore, the emergency generator would not be anticipated to generate excessive noise. The ambient noise from IXTP 7991 replacement facilities would be similar to the previous noise conditions when the existing IXTP was operating. Operational vehicle maintenance trips would occur during daytime hours consistent with the Riverside County Noise Ordinance. Therefore, the project would have less-than-significant long-term and short-term noise impacts, and no mitigation would be required.

**b) Less than Significant**

Construction also has the potential to cause groundborne vibration and groundborne noise. Generally, a project would result in a significant impact if it produced groundborne vibration levels equal to or in excess of 0.1968 in/sec peak particle velocity (the level at which vibrations begin to annoy people in buildings, see **Table 3-12**). Additionally, a peak particle velocity of greater than 0.2 inches/second would have the potential to cause

physical damage to non-engineered structures (FTA 2018). Typical vibration levels for common pieces of construction equipment at a 25-foot range are shown in **Table 3-15**.

**Table 3-15: Typical Construction Equipment Vibration Levels**

| Equipment | Typical Vibration Source Levels peak particle velocity at 25 feet (in/sec) |
|---|---|
| Vibratory roller | 0.210 |
| Loaded trucks | 0.076 |
| Jack hammer | 0.035 |
| Small bulldozer | 0.003 |

Source: Source: FTA 2018.

No nearby structures exist in a 25-foot range of IXTP 7991; thus, the proposed project would not have the potential to damage existing structures. As shown in **Table 3-15**, if a vibratory roller is used for construction of the proposed project, for example to restore Hammond Road, it would result in groundborne vibration at levels that would cause annoyance to people in buildings at distances of 25 feet. No buildings are located within this distance of the proposed project site. Groundborne vibration attenuates rapidly, and vibration from a vibratory roller would attenuate to below 0.1968 inches/second peak particle velocity at less than 30 feet (FTA 2018). No sensitive receptors are located within this radius from the proposed project site.

Once operational, the proposed pumps, chemical systems, and other treatment system components would not create a permanent source of groundborne vibration, other than vehicles associated with occasional maintenance trips (such as loaded trucks). Operational vehicle maintenance trips would occur during daytime hours consistent with the Riverside County Noise Ordinance.

Potential environmental impacts from construction- and operation-related groundborne vibration would be less than significant, and no mitigation measures would be required.

### c) No Impact

The Jacqueline Cochran Regional Airport is located in the western part of the town of Thermal, approximately 6 miles northwest of the proposed project site. The proposed project is not located within an airport land use plan area or within 2 miles of a public airport and would not expose those living or working near an airport to excessive noise levels. The proposed project would have no impact on noise exposure in the vicinity of an airport.

*Mitigation Measures:* None required or recommended.

### Supplemental NEPA Analysis

Per *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments*, an evaluation of noise impacts should include information on the ambient noise environment, distance to sensitive receptors, applicable ordinances, and noise sources and levels

during construction and operation. These topics are discussed in *Section 3.13 Noise* above, including setting and impact information.

The proposed project is located in an agricultural area with nearby highways and railroad tracks. The nearest noise-sensitive receptors are approximately 2,000 feet from the proposed project site. As shown in **Table 3-14**, the loudest potential construction equipment would have noise levels of 90 dBA at 25 feet. The loudest maximum noise experienced by sensitive land uses would be 57.5 dBA, which is within the acceptable range of daytime noise levels identified in the *Riverside County General Plan* (**Table 3-11**). Operation of the proposed project would include noise generated by the new well pump, which would be housed within the well. Because the pump would be located belowground, significant noise attenuation would occur, and operational noise would not impact the surrounding ambient conditions. Noise from operation of the proposed project would be similar to the noise levels associated with the existing IXTP 7991 facilities, which were in operation until late 2017. The temporary construction noise impacts as well as the long-term operational noise impacts would thus be less than significant.

## 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

The proposed project is located in unincorporated Riverside County, south of the unincorporated community of Mecca within the eastern Coachella Valley. The project vicinity is relatively rural and sparsely developed with residential land uses, commercial, and agricultural areas. According to the U.S. Census Bureau 2019 American Community Survey 5-year population estimates, the population of the Mecca Census Designated Place was 6,635 with a total of 2,159 housing units (U.S. Census Bureau 2020a). The Census Designated Place of North Shore, which is located within the Bombay Beach Production Zone, has an estimated 2019 population of 2,756 and 944 housing units (U.S. Census Bureau 2020b). The Riverside County General Plan anticipates that population in the Eastern Coachella Valley region will roughly double between 2020 and 2035 (Riverside County 2015).

The proposed project site is currently occupied by the existing Well 7991 and IXTP 7991 facilities. The proposed project would improve water supply reliability for the Mecca and Bombay Beach Production Zones by creating redundancy with the existing 18-inch pipeline that provides supply to Mecca from the north, which is currently at capacity.

### a) Less than Significant

The proposed project would allow CVWD to re-establish a domestic water supply from Well 7991. This increase in capacity to the overall domestic water system would allow CVWD to improve operational flexibility and supply reliability within its existing service

area. The proposed project does not involve new housing or new water service connections; thus, it would not induce population or housing growth.

With IXTP 7991 currently out of service, there is a lack of redundancy in Mecca's water supply, and the existing pipeline from IXTP 6806 that supplies Mecca is at capacity. Under these circumstances, CVWD is unable to issue new water meters, which would be a necessary part of planning for new housing projects. The proposed project would help alleviate water system deficiencies and would enable CVWD to consider approving new water meters. The improvement in water supply reliability for Mecca may support planned growth in the area.

The *Riverside County General Plan* and *East Coachella Valley Area Plan* estimates significant population growth in the East Coachella Valley Area (from approximately 166,000 in 2020 to 341,000 in 2035, including both incorporated and unincorporated areas), creating a need for new housing (Riverside County 2015). Mecca is among the areas identified for additional mixed-use and residential development (Riverside County 2016).

The proposed project would also serve the Bombay Beach Production Zone, which includes the unincorporated community of North Shore. North Shore is also identified in the *East Coachella Valley Area Plan* as an area designated for additional residential and mixed-use development (Riverside County 2016). Any potential future housing developments would occur in accordance with the *Riverside County General Plan* land use and zoning designations and would undergo appropriate environmental review. Such growth is expected and has been provided for in the *Riverside County General Plan*. Therefore, the proposed project would not induce substantial unplanned population growth, directly or indirectly, in the project area. Impacts related to population growth would be less than significant, and no mitigation would be required.

**b) No Impact**

The proposed project would replace IXTP 7991 facilities within the existing IXTP 7991 site and roadway right of way and would not displace existing people or housing. Therefore, there would be no impacts related to displacement of people or housing and no mitigation would be required.

*Mitigation Measures*: None required or recommended.

**Supplemental NEPA Analysis**

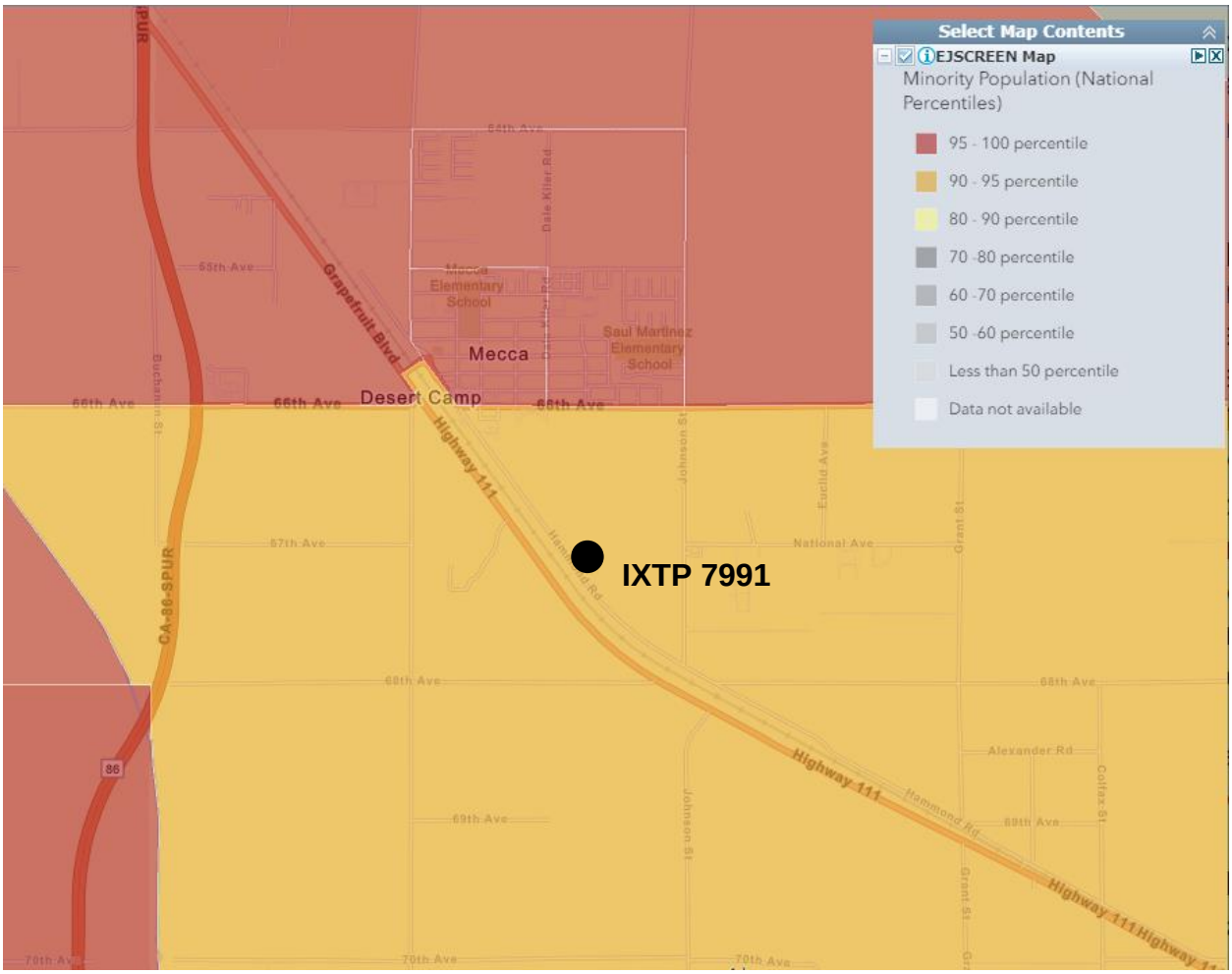
This section describes the existing socioeconomic resources in the proposed project area and the regulatory setting pertaining to environmental justice-related issues. This section also evaluates the potential for the proposed project to disproportionately affect minority or low-income groups. As outlined in *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments*, USDA is required to consider environmental justice issues under Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. USDA Departmental Regulation

5600-2, *Environmental Justice,* provides direction to USDA for implementing Executive Order 12898. According to Departmental Regulation 5600-2, environmental justice means that, "to the greatest extent practicable and permitted by law, all populations are provided the opportunity to comment before decisions are rendered on, are allowed to share in the benefits of, are not excluded from, and are not affected in a disproportionately high and adverse manner by, government programs and activities affecting human health or the environment" (USDA 1997). Per *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments*, an EA should analyze how a project would affect people beyond the immediate provision of a service, including proximity to key infrastructure and related effects, population and project population changes, business impacts, opportunities for community participation in the review process, and mitigation measures, if necessary.

U.S. EPA maintains screening and mapping tools that can be used to assess environmental justice impacts. According to U.S. EPA guidelines, a minority population is present in a study area if the minority population of the affected area exceeds 50 percent, or if the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. The proposed project would be located in unincorporated Riverside County, south of the unincorporated community of Mecca. According to the U.S. EPA's Environmental Screening and Mapping Tool (EJScreen) (U.S. EPA 2019), and as shown in **Figure 3-8**, a majority of the project area is within the 90-95 percentile for minority population; the minority population of the project area thus substantially exceeds 50 percent.

U.S. EPA guidelines recommend that analyses of low-income communities consider the U.S. Census Bureau's poverty level definitions, as well as applicable State and regional definitions of low-income and poverty communities. The U.S. Census Bureau defines poverty thresholds based on household size and income. For a household of two adults and two children, the 2019 poverty threshold was $25,926 (U.S. Census Bureau 2020c). The California Department of Water Resources defines a Disadvantaged Community (DAC) as a community with a median household income (MHI) less than 80 percent of the California MHI and a Severely Disadvantaged Community (SDAC) as a community with an MHI less than 60 percent of the California MHI. According to 2014 to 2018 American Community Survey data compiled by the California Department of Water Resources, the statewide MHI was $71,228. A DAC would therefore be a community with an MHI of $56,982 or less and a SDAC would be a community with an MHI of $42,737. According to the Department's DAC Mapping Tool (DWR 2021), the proposed project site is within a SDAC, as is much of the surrounding region. Additionally, MHI information from the same dataset indicates that both Mecca and North Shore have MHIs that are below the federal poverty level ($23,895 and $24,760, respectively) (DWR 2021).

**Figure 3-8: U.S. EPA EJScreen Map of Minority Population**




*Impact Analysis*

The proposed project would not cause a disproportionate adverse socioeconomic or environmental justice impact to a minority or low-income population. The nearest residences to the proposed project site are located approximately 2,000 feet away, and the nearest commercial areas are located in the community of Mecca, approximately 0.5 miles from the IXTP 7991 site.

As described in *Section 3.3 Air Quality, Section 3.9 Hazards and Hazardous Materials, Section 3.13 Noise,* and *Section 3.17 Transportation*, the proposed project would not impact human health, and mitigation measures have been identified to reduce potential impacts to less-than-significant levels. Thus, the construction of the proposed project would not disproportionately affect low income or minority populations. Operation of the proposed project would involve a limited number of vehicle trips, and would be similar to operational activities conducted while IXTP 7991 was in operation until approximately 2017. Project operation would not result in significant impacts to air quality, noise,

transportation, or hazards, and would not have a disproportionate effect on low-income or minority populations.

IXTP 7991 has been out of operation since 2017. As described in *Section 2.2 Project Purpose and Need,* the pipeline that currently supplies water to Mecca is at capacity. With Well 7991 offline, Mecca's only water supply is from IXTP 6806 (located to the north of Mecca) and the community's water supply lacks redundancy. The proposed project would alleviate this deficiency and provide a more reliable water supply to the Mecca and Bombay Beach Production Zones without reliance on the existing pipeline from IXTP 6806.

On September 23, 2020, CVWD presented information on the IXTP 7991 project to a virtual meeting of the Mecca-North Shore Community Council and County Service Area 97. Community Councils were established by the Riverside County Board of Supervisors to advise the Board of a wide variety of concerns that arise within the community. Community Councils report on project planning, public health, safety, welfare public works and other issues. While they are strictly advisory in nature, the voice of the councils is heard by both the Board and other important entities such as the Planning Commission. Meetings are open to the public. The meeting was advertised with a notice in the *Desert Sun* newspaper on September 6, 2020. At the meeting, CVWD staff provided an overview of the project background, purpose, and function, and answered questions from the community. No concerns or specific comments were received regarding IXTP 7991. The public will also have the opportunity to comment on this IS/MND through the CEQA process.

Although construction would generate impacts (such as dust, traffic, and noise), such activities would be intermittent and temporary, and would cease upon completion of construction. Mitigation measures have been identified which would reduce these impacts to a less-than-significant level. Impacts to commercial areas and businesses are not anticipated.

The proposed project would benefit the surrounding communities in the area, which are comprised largely of minority and low-income populations, by improving their water supply reliability. Although the proposed project would have minor temporary effects like dust, traffic, and noise, the proposed project would provide a significant benefit to the communities served. Currently, the water supply to these communities has a single point of failure, which would be relieved by the proposed project. Therefore, the proposed project meets a critical need for the community. The proposed project would also provide emergency supply reliability to ensure that these communities do not experience unexpected water shutoffs, which pose a health and sanitary issue. Therefore, the project would result in a substantial long-term beneficial impact to local residents. As documented in **Appendix E**, USDA has reviewed the appropriate documentation and has determined that no major environmental justice or civil rights impact is likely to result if the project is implemented.

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

### Discussion

Riverside County Fire Department, in cooperation with CalFire, provides fire protection and emergency services to unincorporated areas of Riverside County. Station 40 is located at 91350 Avenue 66 in the unincorporated community of Mecca, approximately 0.5 miles north of the project site. The Riverside County Sheriff's Department provides law enforcement services, and the California Highway Patrol provides traffic enforcement services within the project area. The Riverside County Sheriff's Mecca Sub-Station is located at 91260 Avenue 66, approximately 0.5 miles north of the project site. There are no schools located near the proposed project site. The Mecca Elementary School is located approximately one mile north of the project site, the Saul Martinez Elementary School is located approximately 0.8 miles northeast of the project site. There are no parks located within the project area. The Mecca Sports Complex is located approximately 0.8 miles northwest of the project site.

**a) No Impact**

The proposed project would not result in substantial adverse physical impacts associated with public services (such as fire and police protection, schools, parks, libraries, or health clinics) because the proposed project would serve existing communities and would not significantly expand the water system or add a significant amount of new connections that would directly induce development or population growth (see *Section 3.14 Population and Housing*).

Once operational, site 7991 would provide reliable water supply to the Mecca and Bombay Beach Production Zones. If future new development projects are proposed in those areas, CVWD would be able to consider approval of new water meters, which could enable development to move forward. As discussed in *Section 3.14 Population and Housing,* development projects would be subject to project-specific, applicable environmental review, which would include evaluation of their potential impact on public services.

In addition, the operation and maintenance requirements of site 7991 would not result in an increase in the need for new staff or facilities from public protection services such as police or fire departments. Implementation of the proposed project would not increase the demand for a public service; and therefore, no project-related resources would be required from public service providers. The proposed project would have no impact on public services.

*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

There are no parks located within the project area. The Mecca Sports Complex is located approximately 0.8 miles to the northwest of the project area. Riverside County contains bicycle, pedestrian, and equestrian trails. The *Eastern Coachella Valley Area Plan* identifies existing and proposed trails. Class I and Class II bike paths are proposed in the general project vicinity along Avenue 66 and Dale Kiler Road, but do not currently exist. Hammond Road, which is adjacent to the proposed project site, does not have an existing or proposed designated bike path. No regional trails exist in the project vicinity.

### a, b) No Impact

There are no parks within the project area, and replacement of the IXTP 7991 facilities would not increase the use of existing parks or other recreational facilities. The proposed project would re-establish and increase CVWD's capacity to produce groundwater from Well 7991 from 1,000 gpm up to approximately 1,500 gpm. This increase in operational capacity would allow CVWD to improve supply reliability within its existing service area.

The proposed project would not induce new growth or use of existing recreational facilities that would cause physical deterioration of the facilities. Similarly, the proposed project would not include recreational facilities or require the construction or expansion of

recreational facilities that might have an adverse physical effect on the environment. Thus, there would be no impact on recreation.

*Mitigation Measures:* None required or recommended.

## 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

Transportation in the Coachella Valley is planned through the Riverside County Transportation Commission (RCTC) and the Coachella Valley Association of Governments (CVAG) in a regional effort. The RCTC plans and implements transportation and transit improvements and assists local governments with funding for local streets and roads to promote accessible transportation throughout Riverside County. RCTC's current *Congestion Management Program* is incorporated into the *Long Range Transportation Plan* (LRTP). The LRTP, published in 2019, includes a comprehensive review of projects on the state highway, regional arterials, rail and bus, freight network, and active transportation. According to the LRTP, in 2016, nearly all roadway segments in the Coachella Valley were operating at acceptable levels of service (that is, they were not congested) with isolated exceptions. The nearest congested area to the proposed project site is located on Interstate 10 and is approximately 15 miles northeast of the proposed project area (RCTC 2019).

The CVAG *Transportation Prioritization Study* (CVAG 2017b) was developed to evaluate the regional transportation system needs within the Coachella Valley and to assist CVAG in making funding decisions. The *Transportation Prioritization Study* includes roadway

projects as well as bicycle and multipurpose projects. The CVAG *Active Transportation Plan* (CVAG 2017a) was prepared in conjunction with the *Transportation Prioritization Study* and provides goals and objectives related to alternative transportation within the Coachella Valley. Goals of the *Active Transportation Plan* focus on improvements to bicycle and pedestrian access and safety.

The Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy, called *Connect SoCal* (SCAG 2020) identifies strategies to improve mobility and to meet legislative, financial and air quality requirements in the six-county area of Southern California. It is updated every four years, most recently in September 2020. Most of the projects identified in the Coachella Valley focus on roadway expansions and expanding the Sunline Transit Agency facilities (SCAG 2020).

The only paved roadway adjacent to the IXTP 7991 site is Hammond Road, a two-lane road with no bicycle or pedestrian facilities. A private dirt farm road runs along the north side of the IXTP 7991 site. Existing circulation in the project vicinity typically consists of two-lane roads similar to Hammond Road. Union Pacific railroad tracks are located to the west of Hammond Road, approximately 250 feet from the IXTP 7991 site. State Route 111 is a two-lane highway that runs parallel to Hammond Road and the Union Pacific railroad tracks, approximately 500 feet from the IXTP 7991 site. State Route 86 is located approximately 1.5 miles from the proposed project site. As shown in **Table 3-13**, State Route 86 where it passes west of the IXTP 7991 site had a measured average daily number of vehicle trips of between 7,700 and 37,900 in 2007.

**a) Less than Significant with Mitigation Incorporated**

During construction, the project would generate up to 13 round-trip trips per day, which includes trips for off hauling of export material, delivery of materials, and construction worker commuting. Nearly all construction activities would occur within the IXTP 7991 project site, which is owned by CVWD. Limited construction work would occur in Hammond Road to connect the treatment system to the existing water main located in Hammond Road. This work would be completed using open trench construction techniques and may require temporary closures of one lane at a time on Hammond Road. Work in Hammond Road is estimated to require up to five workdays, which includes restoration of the road surface. No other construction activities are anticipated to require lane closure. Construction would be temporary and disturbed areas in Hammond Road would be restored to original grade. As such, temporary construction impacts are not expected to have a significant impact related to the *Long Range Transportation Plan*, the CVAG studies, or *Connect SoCal*, which focus on long-term, regional circulation projects.

Once operational, the project would not conflict with regional transportation plans (such as the *Long Range Transportation Plan*, *Active Transportation Plan*, *Transportation Prioritization Study,* and *Connect SoCal*). CVWD staff would visit the site twice per week for operation and maintenance activities. Periodic vendor trips for activities such as removal of old media, delivery of new media, and chemical deliveries would be made using standard on-road vehicles and operational activities would be contained at the site.

The proposed Project's long-term impacts on the circulation system would therefore be less than significant.

Although construction impacts would not be substantial, construction of the proposed project may require individual traffic lane closures. To ensure the appropriate traffic controls are implemented and potential traffic impacts related to lane closures are less than significant, CVWD shall implement **Mitigation Measure TRA-1**. With this mitigation measure incorporated, temporary construction work would not have a significant impact related to the applicable planning documents (*Long Range Transportation Plan, Congestion Management Program, Transportation Prioritization Study, Active Transportation Plan, Connect SoCal)*.

**b) Less Than Significant Impact**

CEQA Guidelines Section 15064.3, subdivision (b) stipulates criteria for analyzing transportation impacts in terms of "vehicle miles traveled" (VMT) for land use projects and transportation projects. VMT refers to the amount and distance of automobile travel attributable to a project. The Governor's Office of Planning and Research (OPR) technical advisory on transportation impacts states that "projects that generate or attract fewer than 110 trips per day generally maybe assumed to cause a less than significant transportation impact." Riverside County has determined that a project would result in a significant VMT impact if the following conditions are satisfied:

1. For residential projects: the baseline or cumulative project-generated VMT per capita exceeds 15% below the current jurisdictional baseline VMT per capita, or

2. For office and industrial projects: the baseline or cumulative project-generated VMT per employee exceeds 15% below the current jurisdictional baseline VMT per employee, or

3. For new retail & other land use projects, utilizing a threshold consistent with the net total VMT of the jurisdiction.

The proposed project is not a residential, office, industrial, or retail project, and would not alter land use. As discussed in *Section 3.11 Land Use and Planning* and *Section 3.14 Population and Housing*, the proposed project would not conflict with existing land use plans or induce growth that could generate new vehicle trips. Construction of the proposed project would involve up to 13 temporary trips daily associated with workers, delivery of construction supplies and equipment, and hauling materials to and from the site. These trips would be temporary over the 12-month duration of construction and would not result in a noticeable increase in vehicle miles traveled that would exceed OPR's recommended threshold of 110 trips per day or the County thresholds of significance. Truck trips associated with operation and maintenance would be limited and incorporated into CVWD's existing operation and maintenance program. The VMT generated during operation of the proposed project would be minimal. Therefore, the project would not be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and the impact on VMT would be less than significant.

**c) No Impact**

The project would replace water treatment facilities at the IXTP 7991 project site, which would not have a permanent impact on geometric roadway design. The proposed project would involve limited work in Hammond Road to connect IXTP 7991 to the existing water main. The roadway would be restored to its original grade and surface following completion of the pipeline tie-in. CVWD would conduct operational activities using standard vehicles, which would not introduce incompatible uses to roadways. The project would not result in transportation hazards.

**d) Less than Significant with Mitigation Incorporated**

As explained in Section 3.17(a), construction of the project would generate trips associated with construction crews and materials deliveries. The proposed project may necessitate limited closures of individual traffic lanes on Hammond Road immediately adjacent to the IXTP 7991 site. Although potential lane closures would have a limited duration, they have the potential to hinder access for emergency vehicles. To reduce the potential impact to emergency access, CVWD shall implement **Mitigation Measure TRA-1**, which requires that the contractor coordinate to ensure that emergency responders are informed of the construction location and schedule, and that emergency crews be able to access the project site and surrounding areas. The remainder of the construction and staging would occur within the IXTP 7991 site and would not result in inadequate access for emergency vehicles. During project operation, CVWD would visit the site using standard vehicles and would not impede emergency access to the surrounding areas. Therefore, with the implementation of **Mitigation Measure TRA-1**, impacts on emergency access would be less than significant.

*Mitigation Measures*:

**Mitigation Measure TRA -1: Traffic Control Plan**

The construction contractor shall implement an approved Traffic Control Plan, to the satisfaction of the CVWD construction inspector and the County for the duration of the project construction. The components of the Traffic Control Plan shall include:

- Identification of construction staging site locations and potential lane closures,
- Emergency response contact information,
- Planned routes for construction-related vehicle traffic (haul routes), and
- Identification of alternative safe routes to maintain pedestrian safety during construction.

CVWD's Project Manager shall coordinate with the police, fire, and other emergency services to alert these entities about potential construction delays and

construction schedule. CVWD shall minimize the duration of disruptions/closures to Hammond Road and critical access points for emergency services. The Traffic Control Plan shall provide for traffic control measures including flag persons, warning signs, lights, barricades, and cones to provide safe passage of vehicular, bicycle and pedestrian traffic and access by emergency responders. All construction personnel shall be briefed on project-specific circumstances relating to worker and public safety with regards to traffic control. The Traffic Control Plan shall be submitted to CVWD's Project Manager and construction inspector for review and approval prior to construction.

CVWD's construction inspector shall have the construction schedule and Traffic Control Plan reviewed by Riverside County to ensure construction of the proposed project does not conflict with construction activities associated with other construction projects that may be occurring at the same time in the vicinity.

**Supplemental NEPA Analysis**

*USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments*, requires that environmental documents include a discussion of transportation impacts, including the existing facilities, necessary permissions from federal or state transportation agencies, and impacts on congestion, noise, odors, dust, and transportation patterns.

As described in the preceding sections, the proposed project may have temporary construction-related transportation impacts. Construction work would be contained at the proposed project site with the exception of the tie-in to the existing water main pipeline located in Hammond Road. **Mitigation Measure TRA-1** would ensure that a Traffic Control Plan is prepared and implemented to minimize impacts from potential traffic lane closures. The Traffic Control Plan would contain measures to minimize impacts to circulation and provide for safe ingress and egress from the project site; these measures would reduce emergency access impacts to a less-than-significant level. An encroachment permit would be obtained from Riverside County for construction work in the Hammond Road right-of-way; no state or federal coordination would be required. Following completion of the tie-in, Hammond Road would be repaved and restored to its previous condition; therefore, construction in the roadway would not pose a hazard or impact circulation. Operation of the proposed project would include minimal vehicle trips to visit the IXTP 7991 site (two trips per week) which would not impact the transportation system. The impact would be less than significant.

## 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**

A *Cultural Resources Assessment Report* was prepared in January 2021 by Rincon Consultants, Inc. for the proposed project. A field survey of the project area was conducted on April 30, 2020. The *Cultural Resources Assessment Report* is provided in **Appendix D**.

On May 4, 2020, Rincon conducted a search of cultural resources records at the Eastern Information Center at the University of California, Riverside, and on April 24, 2020, a search of the Sacred Lands File was requested from the Native American Heritage Commission. *Section 3.5 Cultural Resources* provides an overview of the Eastern Information Center and other database searches that were conducted for the proposed project. No cultural resources were discovered during the April 2020 field survey.

Results of the Sacred Lands File Search by the Native American Heritage Commission did not indicate the presence of Native American sacred lands within the vicinity of the project site. In addition to the search of the Scared Lands File, the Native American Heritage Commission identified 23 Native American contacts who may have knowledge of cultural resources of Native American origin at the project site. Rincon prepared letters to each of the listed contacts, requesting they contact Rincon if they have knowledge of any Native American cultural resources within or immediately adjacent to the project area. Due to the COVID-19 pandemic and statewide closure of offices, the letters were sent via email on May 8, 2020. Follow-up outreach attempts (by phone or email) were made to each contact throughout May and June 2020.

As of January 2021, Rincon had received responses via a combination of telephone and email from the following tribes in response to the emailed letters: Jamul Indian Village, La Posta Band of Diegueño Mission Indians, Quechan Tribe of the Fort Yuma Reservation, Ramona Band of Cahuilla, Santa Rosa Band of Cahuilla Indians, and Viejas Band of Kumeyaay Indians. None of the tribes requested to formally consult on the project, nor did they offer any information regarding cultural resources in the vicinity of the project provided. Documentation of the consultation effort is included in **Appendix D**.

*Assembly Bill 52 Consultation*

AB 52 (Gatto, 2014) established a formal consultation process between a lead agency and all California Native American Tribes regarding tribal cultural resource evaluation. AB 52 mandates that a lead agency shall provide formal written notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have previously requested notice. The AB 52 consultation is initiated early in the project review phase by written notification including a brief description of the proposed project and its location, and the lead agency contact information. The Native American tribal government has 30 days to request project-specific consultation pursuant to this section (PRC §21080.1).

As a part of the consultation pursuant to PRC Section 21080.3.1, the parties may propose mitigation measures, including, but not limited to, those recommended in Section

21084.3, capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource. If the California Native American tribe requests consultation regarding alternatives to the project, recommended mitigation measures, or significant effects, the consultation shall include those topics. The consultation may include discussion concerning the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and, if necessary, project alternatives or the appropriate measures for preservation or mitigation that the California Native American tribe may recommended to the lead agency. Further, consultation shall be considered concluded when either of the following occurs: (1) The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or (2) A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

On April 20, 2021, CVWD mailed AB 52 consultation letters (*Notice of Opportunity to Consult)* to eight (8) local Native American tribal governments that have previously requested to consult with CVWD under AB 52.

To date (June 10, 2021), CVWD environmental staff have received one (1) written formal request for consultation from the Agua Caliente Band of Cahuilla Indians (ACBCI) Tribe dated May 10, 2021. CVWD has responded to this request and formally initiated AB 52 consultation via a phone call on May 27, 2021. On a secondary phone call on June 7, 2021, AB 52 consultation was concluded with the ACBCI Tribe and a copy of the Cultural Resources Assessment Report provided.

**ai-aii) Less than Significant with Mitigation Incorporated**

A project-level *Cultural Resources Assessment* (**Appendix D**) was prepared to identify potential impacts to cultural resources, including tribal cultural resources, that would result from the proposed project. The entire project area has been previously disturbed by construction and operation of the existing IXTP 7991; therefore, the possibility of encountering intact surface tribal cultural resources is considered low. However, with construction projects involving excavation there is potential for ground-disturbing activities to expose previously unrecorded tribal cultural resources. The following mitigation measure, which is described in detail in *Section 3.5 Cultural Resources,* will be implemented and are designed to avoid or lessen potential impacts to a tribal cultural resource.

**Mitigation Measure CUL-1** requires that all earth disturbing work be temporarily suspended if cultural resources, including tribal cultural resources, are discovered during construction.

CVWD would comply with applicable regulations governing accidental discovery of human remains and notification of a Most Likely Descendant, if applicable. These compliance steps are described in *Section 3.5 Cultural Resources*.

With implementation of **Mitigation Measure CUL-1**, potential impacts resulting in a substantial adverse change to the significance of tribal cultural resources would be reduced to less than significant.

*Mitigation Measures:* Refer to **Mitigation Measure CUL-1** 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*

Water supply services for the project area are provided by CVWD. CVWD delivers irrigation and potable water, collects and recycles wastewater, provides regional storm water protection, replenishes the Coachella Valley Groundwater Basin and is the largest water supplier in the Coachella Valley. In 2015, CVWD provided 92,974 acre-feet of water to 212,871 residents through 107,358 active meters (CVWD 2016). CVWD's irrigation system consists of 485 miles of buried pipelines, 19 pumping plants, and 1,300 acre-feet of storage and provides approximately 392,000 acre-feet per year of Colorado River water and blended recycled water to over 1,100 customers covering approximately 76,354 acres (CVWD 2016). CVWD's water supplies come from groundwater, recycled water, imported water from the State Water Project (via the California Aqueduct) and the Colorado River via the Coachella Canal, a branch of the All-American Canal. All potable water is pumped from the groundwater basin. Imported and recycled water supplies are used to meet non-urban water demands and for groundwater replenishment.

*Wastewater and Recycled Water*

CVWD provides wastewater collection and treatment services in the project area. CVWD's wastewater collection system consists of approximately 1,100 miles of 6-inch through 36-inch diameter sewers and includes 35 sewage lift stations and associated force mains. The system contains trunk sewers, generally 10-inches in diameter and larger, that convey the collected wastewater flows to CVWD's treatment facilities. CVWD operates five water reclamation plants, two of which generate recycled water for irrigation of golf courses and large landscaped areas.

*Stormwater*

CVWD provides regional flood protection for its stormwater unit within the majority of the Coachella Valley. CVWD's stormwater unit extends from the Whitewater River Spreading Area to Salton City, encompassing approximately 378,000 acres. CVWD's regional flood control system consists of a series of debris basins, levees, and stormwater channels that divert floodwaters from the canyons and alluvial fans surrounding the Coachella Valley to the 50-mile Whitewater River/Coachella Valley Stormwater Channel that flows to the Salton Sea.

*Solid Waste*

Waste collection in the project area is provided by Burrtec. The Coachella Transfer Station is located north of Coachella, California approximately 12 miles north of the proposed project site, and the Oasis Landfill is located in Oasis, California, approximately 7 miles south of the project site.

*Utilities*

Imperial Irrigation District provides electricity services and Southern California Gas Company provides natural gas services within the project area.

**a) Less than Significant Impact**

The proposed project would replace existing water treatment facilities. The proposed project would not require or result in the construction of new or expanded wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities beyond the alterations to CVWD's potable water treatment system at the IXTP 7991 site included in the proposed project. As discussed in *Section 3.14 Population and Housing*, the proposed project would improve water service reliability to existing communities. The proposed project could allow CVWD to consider issuing new water meters but would not induce unplanned population growth that would require new or expanded utilities. Therefore, impacts due to new or relocated utilities would be less than significant.

**b) Less than Significant Impact**

The proposed project is limited to replacement of the existing IXTP 7991 facilities and would not induce new water demands. The proposed project would provide water supply reliability and redundancy to the Mecca and Bombay Beach Production Zones and would improve operational flexibility for CVWD. The new IXTP 7991 would allow production of up to 1,500 gpm from Well 7991. Historically, Well 7991 and IXTP 7991 produced approximately 1,000 gpm. The proposed project would increase the treatment and production capacity of the facilities. The increased capacity would help CVWD to meet existing peak demands and provide greater reliability to surrounding communities. The proposed project would not expand the CVWD service area. As discussed in *Section 3.14 Population and Housing*, the proposed project may enable CVWD to consider approval of new water meters in Mecca; potential future development in the Mecca area is consistent with planned growth evaluated in the Riverside County General Plan. According to CVWD's 2015 *Urban Water Management Plan* (CVWD 2016), there will be sufficient supplies to meet projected demands through 2040 in normal, single-dry, and multiple-dry years. Therefore, impacts on water supplies would be less than significant.

**c) No Impact**

The proposed project would replace potable water treatment facilities and would not involve or increase wastewater collection or treatment services. Therefore, no impacts on wastewater treatment capacity would occur.

**d, e) Less than Significant Impact**

Demolition of the existing IXTP 7991 and associated structures would generate short-term construction and demolition debris. However, the total volume of solid waste would be limited, and would be within the capacity of the landfills in the region. Waste material would be hauled to the Coachella Valley Transfer Station or Oasis Landfill. The Oasis Landfill is permitted to accept 400 tons of waste per day, and the Coachella Valley Transfer Station is permitted to accept up to 1,100 tons of waste per day (Cal Recycle 2020a, Cal Recycle 2020b). To the extent feasible, excavated soil would be reused on site. The construction contractor would be required to dispose of excavated soil and solid

wastes in compliance with all federal, State, and local requirements for integrated waste management and solid waste disposal.

Solid waste generation would be limited to construction-related activities and disposal of adsorption media and would not affect available solid waste disposal capacity in the region. No significant long-term solid waste generation would be associated with operation of the proposed project. Therefore, impacts 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 project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | [ ] | [ ] | [ ] | [ X ] |
| 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**

As noted in *Section 3.9, Hazards and Hazardous Materials*, the project is located within Riverside County's Local Responsibility Area and the project area is designated as a non-Very High Fire Hazard Severity Zones (CalFire 2009).

**a) Less than Significant with Mitigation Incorporated**

Construction of the proposed project would include replacement of IXTP facilities at the existing IXTP 7991 site. Staging and construction activities would be limited to the one-acre IXTP 7991 site with the exception of limited work in Hammond Road to connect to the existing water main. This work would require individual traffic lane closures for up to five days, which could impede emergency response vehicles or emergency evacuations. **Mitigation Measure TRA-1** would require the implementation of a traffic control plan, which would include coordination with emergency responders and reduce the impact to a less than significant level. Long-term, the proposed project would not physically impair or otherwise interfere with emergency response or evacuation in the project vicinity as the project components would be located within the IXTP 7991 site, and operational activities would occur within the site without impeding traffic or emergency access. Thus, impacts on emergency response or evacuation would be less than significant.

**b) No Impact**

The proposed project is located within a Local Responsibility area and is not designated as a Very High Fire Hazard Severity Zone. Therefore, the proposed project would not exacerbate wildfire risks, and thereby expose proposed project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Thus, no impacts related to pollutant exposure from wildfire would occur.

**c) No Impact**

The proposed project would replace the existing IXTP 7991, which until recently, provided water to Mecca and the surrounding area. The project would restore this water source and would not require construction of associated infrastructure that could impact the environment or exacerbate fire risk. Operation and maintenance activities associated with the proposed project would include approximately two visits per week by CVWD staff for inspections and monitoring, which would not require activities that would exacerbate fire risk. Therefore, no impacts to the environment would occur.

**d) No Impact**

The project area is primarily level agricultural lands, and there are no slopes or hills within the project area. The proposed project would be designed such that drainage from the site is directed to the existing onsite retention basin; thus, the proposed project would not impact site drainage. Therefore, the proposed project would not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. No impacts to people or structures would occur.

*Mitigation Measures*: Refer to **Mitigation Measure TRA-1** in *Section 3.17 Transportation*.

### 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 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? | [ ] | [ X ] | [ ] | [ ] |
| 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**

The proposed project would construct water treatment facilities including adsorption vessels, backwash tanks, onsite piping, and other components at the IXTP 7991 site. The proposed project would be located at the IXTP 7991 site and within a small portion of

Hammond Road immediately adjacent to the IXTP 7991 site. With implementation of mitigation measures, the proposed project would not have the potential to substantially degrade the quality of the environment, reduce wildlife habitat, result in adverse impacts to wildlife populations or communities, or eliminate important examples of major periods of California history or prehistory.

As discussed in *Section 3.4 Biological Resources*, the proposed project site does not contain suitable habitat to support special status wildlife or plant species or sensitive plant or animal communities because of the disturbance history of the site, lack of suitable soils, inappropriate hydrologic conditions, absence of appropriate vegetation communities, lack of native vegetation, and isolation from other suitable habitat. CVWD would ensure that project activities comply with the California Fish and Game Code and Migratory Bird Treaty Act to avoid potential direct and indirect impacts to nesting birds (e.g., injury, mortality, or disruption of normal adult behaviors resulting in the abandonment or harm to eggs and nestlings), and thus the proposed project would have a less than significant impact on nesting birds. The proposed project site is not located in or near a riparian habitat, sensitive natural community, wetland, or wildlife corridor. The proposed project would not conflict with local policies or ordinances, and the proposed project is not within a Conservation Area identified in the CVMSHCP/NCCP. Therefore, impacts to biological resources would be less than significant.

Additionally, there is potential for ground-disturbing activities to uncover previously unrecorded cultural resources. **Mitigation Measure CUL-1** would require that all ground disturbing work be temporarily suspended if cultural resources are discovered during construction. CVWD will comply with applicable regulations governing discovery of human remains, which will ensure a less-than significant impact in the event that human remains were unearthed during construction activities. With implementation of **Mitigation Measure CUL-1**, potential impacts resulting in a substantial adverse change to the significance of Tribal, historical and/or archeological resources would be reduced to less-than-significant levels.

**b) Less than Significant with Mitigation Incorporated**

Implementation of the proposed project would not result in individually limited but cumulatively considerable significant impacts. According to the CEQA Guidelines, 15065(a)(3), “cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects. As described in Sections 3.1 through 3.20, all resource topics associated with the proposed project have been analyzed in accordance with CEQA and the State CEQA Guidelines and were found to pose no impacts, less than significant impacts, or less than significant impacts with mitigation incorporated. No potentially significant impacts would occur from project implementation. Impacts related to air quality were evaluated against thresholds designed to gauge an individual project’s cumulative impacts and were determined to be less than significant. Potential impacts on special status and protected species, including migratory birds, would be less than significant with mitigation. Likewise,

the project's potential impacts on unrecorded cultural resources and human remains would be less than significant with mitigation. Temporary impacts of construction related to handling hazardous materials and transportation circulation systems would also be less than significant with mitigation incorporated.

Related projects in the Eastern Coachella Valley area consist of other CVWD domestic water projects. These include the Dale Kiler Road Water Main Replacement Project in the community of Mecca, which would replace a potable water pipeline in the community, and the Saint Anthony Mobile Home Park Small Water System consolidation project, which would consolidate mobile homes into CVWD's domestic water supply system and construct a water main along Avenue 66 west of Mecca. CVWD is also in the process of applying for USDA grant/loan funding for other domestic water projects. These include the Dale Kiler Road Water Main Replacement Project, the North Shore Water Main Replacement Project, Tank 7101-2 Construction Project, and the Tanks 4711-3 and 4711-4 Replacement Project. These projects would be implemented on varying timelines and are spread across the region; they would not be located at or near the IXTP 7991 site. The incremental impact of the proposed project, which is limited to a single site, together with impacts of these other related projects in the region would be considered less than significant due to the large geographical area of the projects and the extended timeframe for development of the projects (that is, most projects would not occur simultaneously). Additionally, the related projects would be required to comply with the same or similar regulations and mitigation measures that would reduce potential impacts. Therefore, with the implementation of mitigation measures identified in this IS/MND, implementation of the proposed project along with current and future projects would not result cumulatively considerable significant impacts.

**c) Less than Significant with Mitigation Incorporated**

With implementation of mitigation measures, the proposed project would not have the potential to cause substantial adverse effects on human beings. The potential exists for accidents to occur during construction activities and routine operation and maintenance, which would result in the release of hazardous materials into the environment. **Mitigation Measure HAZ-1**, which requires development of a Hazardous Materials Management Spill Control Plan, would reduce this potential impact to a less-than-significant level. The proposed project is not located near noise-sensitive receptors and would not expose sensitive receptors to excessive noise or groundborne vibration; impacts due to noise would be less than significant. Finally, construction-related vehicle trips and potential individual lane closures, while limited in duration and extent, would result in temporary impacts to the surrounding transportation circulation system and emergency access. **Mitigation Measure TRA-1** would reduce these potential impacts to a less-than-significant level.

All resource topics associated with the proposed project have been analyzed in accordance with CEQA and the State CEQA Guidelines and were found to pose no impacts, less than significant impacts, or less than significant impacts with mitigation incorporated. Consequently, the proposed project would not result in any environmental

effects that would cause substantial adverse effects on human beings directly or indirectly.

*Mitigation Measures*: See **Mitigation Measures CUL-1, HAZ-1,** and **TRA-1**.

**Supplemental NEPA Analysis**

The following subsections address whether there are controversies or extraordinary circumstances associated with the proposed project in order to facilitate USDA review under NEPA.

*Controversy*

The proposed project would provide reliable drinking water supply and redundancy to the Mecca and Bombay Beach Production Zones. The project also improves operational flexibility for CVWD by restoring Well 7991 to operation. The proposed project is not known to be the subject of controversy associated with potential environmental effects or for any other environmental reason.

*Extraordinary Circumstances*

There are no known extraordinary circumstances that would cause the proposed project to have a significant environmental effect.

# 4. ALTERNATIVES ANALYSIS

Per *USDA RD Instruction 1970, Subpart C, NEPA Environmental Assessments*, for proposals that are less complicated single-site actions, applicants are only required to consider and document the analysis of the "No Action" alternative in the EA as long as there are no potential adverse effects to environmental resources. As described in Sections 3.1 through 3.21, with incorporation of appropriate mitigation measures, the proposed project impacts would be less than significant. The proposed project would not have adverse effects to environmental resources; therefore, only the proposed project and the "No Action" alternative have been considered in detail.

## 4.1 Alternatives Previously Considered

Alternatives that were considered during the planning stages of the proposed project are summarized in **Table 4-1**.

**Table 4-1: Summary of Alternatives Previously Considered**

| Alternative | Description |
|---|---|
| Well 7991 Abandonment | Well 7991 would be abandoned. Abandoning the well presents a significant water supply risk because without Well 7991 there would be only one water supply facility for the Mecca and Bombay Beach Production Zones. Because of this, abandoning Well 7991 is not technically feasible and does not address the problem. |
| Well 7991 Blending | It is possible to use the water from Well 7991 without treatment by blending it with highly treated water. The well would remain operational, but the existing treatment system would be abandoned. Because well operation would rely on another source for blending, the well could not be considered a primary water source for CVWD; Well 7991 would likely be considered a backup source. CVWD has prioritized operation of at least two water sources (Well 6806 and Well 7991) until the planned Avenue 66 pipeline is completed. This is necessary to reduce water supply risk, and therefore blending is not a technically feasible option in the near future. Additionally, even following completion of the Avenue 66 pipeline, additional piping and blending facilities would be required to implement this alternative. Therefore, this alternative would have a larger footprint potentially resulting in greater environmental impact. |
| IXTP 7991 Facility Rehabilitation | The existing treatment system is in poor condition. Most of the facilities and equipment are considered irreparable and unsalvageable. It may be difficult to locate replacement parts and the operational issues and high hauling costs for brine management are undesirable. After communicating with the vendor who provided the existing system, rehabilitation is not recommended and is not deemed technically feasible. |
| IXTP 7991 Facility Replacement | A new treatment system will restore reliable operation, provide an additional source of supply in a short time frame, and allow Well 7991 to serve as a long-term source of water supply. To create water supply reliability to the Bombay Beach Production Zone, the installation of a new treatment system is recommended. Multiple sub-alternatives for treatment process options were considered and evaluated during planning. These include the following: (1) adsorption, (2) ion exchange (large vessel) and (3) ion exchange (small vessel). |

The IXTP 7991 Facility Rehabilitation, Well 7991 Abandonment, and Well 7991 Blending alternatives were eliminated from further consideration during planning because they are not technically feasible and/or would not address the project need. The IXTP 7991 Facility Replacement alternative was determined to be the only alternative that would meet the project need. The IXTP 7991 Facility Replacement alternative has three sub-alternatives for different treatment processes: Adsorption System, Ion Exchange Large Vessel System, Ion Exchange Small Vessel System.

The three IXTP 7991 Facility Replacement sub-alternatives would have similar environmental impacts. They would all be located at the existing IXTP 7991 site, would require similar construction techniques, and would have similar construction schedules. Therefore, the impacts in terms of aesthetics, agriculture, biological resources, cultural and tribal cultural resources, geology and soils, hydrology and water quality, land use, mineral resources, noise, population and housing, public services, recreation, utilities and service systems, and wildfire would not differ substantially from the proposed project. The sub-alternatives would differ slightly in terms of chemical use. The adsorption treatment process would require chlorine, sulfuric acid, and sodium hydroxide, while the Ion Exchange processes would require brine, chlorine, ferric chloride, and sulfuric acid. The Ion Exchange processes would require infrequent disposal of hazardous residual sludge, while the adsorption treatment process would generate non-hazardous waste that would be removed roughly every five years. Therefore, the specific considerations for use of hazardous materials may differ slightly; however, all process sub-alternatives would be subject to the same rules and regulations and would likely all require mitigation similar to **Mitigation Measure HAZ-1**. Thus, impacts in terms of hazards would not differ substantially between sub-alternatives. The Ion Exchange Large Vessel System and Ion Exchange Small Vessel System sub-alternatives would require frequent brine hauling trips during operation, which would involve the potential for greater operational vehicle emissions that could increase emissions of criteria air pollutants and GHGs. These trips could also result in greater transportation impacts compared to the adsorption sub-alternative. The environmental impacts of the Ion Exchange Large Vessel System and Ion Exchange Small Vessel System sub-alternatives would likely be comparable to or greater than the selected adsorption alternative.

## 4.2 Alternatives Considered

The proposed project is described in detail in *Section 2 Project Description.*

Under the No Project alternative, the existing treatment structures at the site would be demolished. This would be similar to the demolition work to be completed as part of the proposed project. No other action would be taken. Well 7991 would remain out of service, and would potentially be used as a monitoring well. Arsenic in the groundwater would prevent the use of groundwater from Well 7991 without treatment. No water would be provided to the Mecca or Bombay Beach Production Zones from Well 7991. The No Project/No Action Alternative would not provide necessary supply to the Mecca or Bombay Beach Production Zones, would not assist in handling peak summer flows, and would not provide system redundancy. The Mecca and Bombay Beach Production Zones

would continue to have a single point of failure of water supply, posing risk to these areas. Thus, while the No Project alternative would reduce construction impacts, it would not achieve project objectives, and would result in water supply vulnerability for the Mecca and Bombay Beach Production Zones.

## 4.3 Selected Alternative

The No Project/No Action Alternative would not achieve the project objectives to improve the reliability and security of the water supply for the Mecca and Bombay Beach Production Zones. The proposed project is the recommended alternative because it is cost-effective, would provide CVWD with a long-term asset, and achieves the project objectives of improved water supply reliability and reducing water supply risk.

**Table 4-2** presents a summary of the environmental impacts of the proposed Project, the proposed Project with mitigation incorporated (if applicable), and the No Project/No Action Alternative. **Table 4-2** summarizes the impacts as either No impact, Less than Significant Impact; Potentially Significant Impact; or Not Applicable (N/A).

## Table 4-2: Comparison of Alternatives – Environmental Impacts

| Issue Areas | Proposed Project IS/MND Findings – Without Mitigation | Proposed Project - With Mitigation (N/A if no mitigation is necessary) | No Project/ No Action |
|---|---|---|---|
| **Aesthetics** | | | |
| Scenic vistas; Light and glare; | Less than Significant Impact | N/A | No impact |
| Visual character and quality; Supplemental NEPA Analysis | Less than Significant Impact | N/A | Less than Significant Impact |
| Scenic resources along a State Scenic Highway | No impact | N/A | No impact |
| The proposed project involves the replacement of water treatment facilities at the IXTP 7991 site, which is located in a rural agricultural area. These proposed facilities would be visually similar to the existing facilities and would be utilitarian in nature. There are no scenic highways in the project area. Construction would occur during daytime hours and any lighting necessary for construction would be directed towards installation activities and away from adjacent land uses. The proposed project would replace existing lighting to illuminate the new facilities; new lighting would be of the lowest appropriate illumination and would be shielded and directed downward. The proposed project would not result in significant temporary or permanent impacts on scenic vistas, visual character and quality, or light and glare. The No Project/No Action alternative would demolish existing treatment facilities at the site, which would have a less-than-significant impact on the visual character of the site. The No Project/No Action alternative would have no impact on scenic views or light and glare. | | | |
| **Agriculture and Forestry** | | | |
| Convert farmland; Indirect conversion of farmland; Supplemental NEPA Analysis | Less than Significant Impact | N/A | No impact |
| Conflict with zoning for agricultural use; Loss of forest use; Conflict with zoning for forest use | No impact | N/A | No impact |
| The proposed project would be constructed at the existing IXTP 7991 site and the immediately adjacent portion of Hammond Road. The proposed project site is classified as prime farmland; however, it is owned by CVWD, zoned for mixed use, and is currently occupied by Well 7991 and existing IXTP 7991 facilities. The proposed project would replace existing facilities and would therefore not result in land use changes or directly or indirectly convert important farmland to a non-agricultural use. The proposed project site is not zoned for agricultural use and is not under a Williamson Act contract. There are no forest lands or timberlands within the proposed project area. No Project/ No Action Alternative would not impact agricultural or forest land. | | | |

| Issue Areas | Proposed Project IS/MND Findings – Without Mitigation | Proposed Project - With Mitigation (N/A if no mitigation is necessary) | No Project/ No Action |
|---|---|---|---|
| **Air Quality** | | | |
| Consistency with air quality plan; Non-attainment criteria pollutants; Sensitive receptors; Objectionable odors; Supplemental NEPA Analysis | Less than Significant Impact | N/A | Less than Significant Impact |
| The proposed project involves replacing IXTP 7991 facilities to improve water supply and reliability for nearby communities. The proposed project would have the potential to serve growth that was planned for in local growth forecasts, and thus would not conflict with the *Air Quality Management Plan*. Based on air quality modeling results, proposed project construction emissions would not exceed regional or localized significance thresholds, nor would they exceed de minimis thresholds, so federal general conformity requirements do not apply. The proposed project would not generate substantial operational emissions and emissions would not exceed the SCAQMD thresholds for any criteria pollutants; therefore, sensitive receptors would not be impacted. Construction-related odors from diesel equipment would be temporary and, once operational, the project would not create objectionable odors. The No Project/No Action Alternative would generate emissions during demolition of existing facilities. Emissions would not be expected to exceed applicable local, regional, state, or federal thresholds, and the impact would be less than significant. | | | |
| **Biological Resources** | | | |
| Sensitive species; Supplemental NEPA Analysis | Less than Significant Impact | N/A | Less than Significant Impact |
| Sensitive habitat; Wetlands; Wildlife corridors; Local policies and ordinances; Habitat Conservation Plans or Natural Community Conservation Plans | No Impact | N/A | No impact |
| The project area does not contain suitable habitat for special status species or communities; In addition , CVWD, as a standard practice, would comply with the Migratory Bird Treaty Act and California Fish and Game Code Section 3503, therefore potential construction impacts on nesting birds protected under the Migratory Bird Treaty Act would be less than significant. The proposed project site does not contain sensitive habitat, wetlands, or wildlife corridors, and is not within a Conservation Area identified in the CVMSHCP/NCCP. The proposed project would not impact species protected under the Federal Endangered Species Act or Bald and Golden Eagle Protection Act. Non-native plant species are present at the IXTP 7991 site and measures to control the spread of invasive species will be implemented, resulting in a less than significant impact. The No Project/No Action Alternative would involve demolition of existing structures similar to the proposed project, during which CVWD would comply with the Migratory Bird Treaty Act and California Fish and Game Code Section 3503. The No Project/No Action Alternative would no impact to other resource topics, similar to the proposed project. | | | |

| Issue Areas | Proposed Project IS/MND Findings – Without Mitigation | Proposed Project - With Mitigation (N/A if no mitigation is necessary) | No Project/ No Action |
|---|---|---|---|
| **Cultural Resources** | | | |
| Historical resources; Archaeological resources; Supplemental NEPA Analysis | Potentially Significant Impact | Less than Significant Impact | Potentially Significant Impact |
| Human remains | Less than Significant Impact | N/A | Less than Significant Impact |
| The records search did not identify any cultural resources within the project area. Although the proposed project site has been previously disturbed, there is a possibility of identifying unanticipated cultural resources during ground disturbing activities associated with the proposed project. Implementation of mitigation measures including archaeological resource monitoring and practices for unanticipated discovery of cultural resources would reduce potential impacts to less than significant. The potential for encountering human remains is low and compliance with applicable regulations would ensure that impacts to human remains are less than significant. The No Project/No Action Alternative would include demolition of existing treatment facilities which could involve ground disturbing activity and therefore would have the potential to disturb previously unknown cultural resources, resulting in a potentially significant impact. Similar to the proposed project, the No Project/No Action Alternative would comply with regulations governing discovery of human remains and would thus have a less than significant impact. | | | |
| **Energy** | | | |
| Wasteful, inefficient, or unnecessary consumption of energy resources; | Less than Significant Impact | N/A | Less than Significant Impact |
| Conflict with state or local plans for renewable energy or energy efficiency | Less than Significant Impact | N/A | Potentially Significant Impact |
| Construction of the proposed project would comply with required energy efficiency measures and operational energy use would be comparable to similar treatment facilities operated by CVWD. Impacts associated with energy consumption would thus be less than significant. By replacing an old treatment system with a new, efficient treatment systems, the proposed project would support applicable state and local plans. The proposed project would thus not conflict with state or local plans for energy efficiency and impacts would be less than significant. The No Project/No Action Alternative would consume fossil fuel for demolition. Demolition would not involve wasteful, inefficient, or unnecessary energy use and impacts would be less than significant. The No Project/No Action Alternative would not support applicable energy plans because it would not improve coordination and management of water supplies; the existing system deficiencies and risk would persist. | | | |
| **Geology and Soils** | | | |
| Geological hazards; Erosion and topsoil loss; Unstable soils; Expansive soils; Paleontological Resources | Less than Significant Impact | N/A | Less than Significant Impact |

| Issue Areas | Proposed Project IS/MND Findings – Without Mitigation | Proposed Project - With Mitigation (N/A if no mitigation is necessary) | No Project/ No Action |
|---|---|---|---|
| Alternative wastewater disposal systems | No impact | N/A | No impact |
| The proposed project involves replacement of existing water treatment facilities in a rural area and thus would not involve exposure of people or structures to seismically induced risks. The project would minimize soil erosion via implementation of BMPs in a SWPPP prepared in accordance with the SWRCB's Construction General Permit. Compliance with CVWD's professional engineering standards and USGS Seismic Design Parameters would ensure less than significant impacts related to risks of unstable soils or geologic hazards. The project would not involve the use of septic tanks or alternative wastewater disposal systems. The potential for encountering fossil resources is low because ground disturbing activities would only reach a maximum depth of 15 feet below ground surface in isolated areas and work would occur on land that is disturbed; significant impacts to paleontological resources are thus not expected. The No Project/No Action Alternative would involve demolition similar to the proposed project, but would include no other ground disturbing activity. Thus, the No Project/No Action Alternative would have less-than significant impacts related to geologic hazards, and paleontological resources. There would be no impact to septic systems. | | | |
| **Greenhouse Gas (GHG) Emissions** | | | |
| GHG emissions; | Less than Significant Impact | N/A | Less than Significant Impact |
| Conflict with GHG reduction plans | Less than Significant Impact | N/A | Potentially Significant Impact |
| The proposed project's maximum annual GHG emissions (including amortized construction emissions) would not exceed Riverside County's or SCAQMD's recommended annual threshold for $CO_2e$ emissions. GHG emissions of the proposed project would be less than significant, and the Project would support the *2017 Climate Change Scoping Plan*, which calls for improved coordination and management of various water supplies. The No Project/No Action Alternative would involve demolition work, which would release GHGs; GHG emissions from demolition would be less than significant. However, the No Project/No Action Alternative would not support applicable GHG reduction plans because it would not improve coordination and management of water supplies; the existing system deficiencies and risk would persist. | | | |
| **Hazards and Hazardous Materials** | | | |
| Routine handling of hazardous materials; Wildland fire | Less than Significant Impact | N/A | Less than Significant Impact |
| Accidental release of hazardous materials; Supplemental NEPA Analysis | Potentially Significant Impact | Less than Significant Impact | Potentially Significant Impact |
| Emergency response or evacuation plans conflict | Potentially Significant Impact | Less than Significant Impact | Less than Significant Impact |

| Issue Areas | Proposed Project IS/MND Findings – Without Mitigation | Proposed Project - With Mitigation (N/A if no mitigation is necessary) | No Project/ No Action |
|---|---|---|---|
| Hazardous materials near schools; Listed hazardous materials sites; Airport safety hazard | No impact | N/A | No impact |
| The proposed project would include the routine transport and use of hazardous materials during construction and operation. Through compliance with all applicable local, State, and federal regulations governing transport and use of these materials, the impact would be less than significant. The project site is not near any active hazardous materials sites, is not within an airport influence area, and no schools are present near the project site; there would be no impact associated with these topics. The Project area is not in a Very High Fire Hazard Severity Zone and has a low risk of wildfire. There is a risk of accidental hazardous materials release during construction. Mitigation requiring a Hazardous Materials Management and Spill Control Plan would reduce impacts to less than significant. Temporary traffic lane closures during construction would have the potential to impede emergency response; mitigation to require a Traffic Management Plan would reduce impacts to less than significant. The proposed project would not generate electromagnetic fields and does not involve the purchase of property. No U.S. EPA or State superfund sites or priority cleanup sites are located on or near the proposed project site. The No Project/No Action alternative would demolish the existing treatment facilities, which would require use and transport of hazardous materials (e.g., fuels). Impacts due to routine use of hazardous materials during building demolition (e.g., diesel fuel) and potential impacts on wildland fire would be less than significant. Potential for conflict with emergency response or evacuation plans would also be less than significant as demolition would not require traffic lane closures The potential for accidental release of hazardous materials would be potentially significant, similar to the proposed project. | | | |
| **Hydrology and Water Quality** | | | |
| Water quality standards or otherwise degrade water quality; Groundwater supply and recharge; Substantially alter drainage pattern; In flood hazard, tsunami, or seiche zones risk release of pollutants; Conflict with or obstruct water quality control plan or sustainable groundwater management plan | Less than Significant Impact | N/A | Less than Significant Impact |
| Supplemental NEPA Analysis | No impact | N/A | No impact |
| Excavation, grading, and other activities associated with construction of the proposed project would result in soil disturbance that would cause water quality violations through potential erosion and subsequent sedimentation of receiving water bodies. However, compliance with the SWRCB Construction General Permit, including implementation of BMPs outlined in a SWPPP, would result in less than significant impacts. The proposed project would use groundwater in a manner consistent with the *Alternative Groundwater Sustainability Plan*, which CVWD implements in the proposed project area. The proposed project would slightly alter individual impervious surfaces (through replacement of old facilities), but the design of the proposed project would maintain the existing drainage pattern and impacts would be less than significant. The project would not have an impact related to flooding risks, or seiche, tsunami, or mudflows. The proposed project does not overlie a sole-source aquifer and is not located within a floodplain. The No Project/No Action Alternative would demolish existing treatment facilities. Impacts to water quality, supply, drainage, pollutant release due to flooding/inundation, and conflict with applicable plans would be less than significant. | | | |

| Issue Areas | Proposed Project IS/MND Findings – Without Mitigation | Proposed Project - With Mitigation (N/A if no mitigation is necessary) | No Project/ No Action |
|---|---|---|---|
| **Land Use and Planning** | | | |
| Divide an established community; Conflict with an applicable land use plan; Supplemental NEPA Analysis | No impact | N/A | No impact |
| The project is limited to a single parcel and would not divide an established community. The project would replace existing facilities and thus would not change land use and would not conflict with any applicable plan, policy or regulation with jurisdiction over the project. Although the proposed project may enable CVWD to consider approving new water meters in the Mecca area, any future development in Mecca would occur consistent with the land use designations in the Riverside County General Plan and East Coachella Valley Area Plan. The proposed project is not in the vicinity of any formally classified lands and would have no impact. The No Project/No Action Alternative would not divide an established community, alter land use, or impact formally classified lands; thus, no impact would occur. | | | |
| **Mineral Resources** | | | |
| Loss of availability of a known, valuable mineral resource or mineral resource recovery site | No impact | N/A | No impact |
| There are no known mineral resources or mineral recovery sites at the proposed project site; thus, there would be no impact. Under the No Project/No Action Alternative, no new facilities would be constructed and there would be no impact. | | | |
| **Noise** | | | |
| Substantial temporary or permanent increase in noise levels in excess of standards; Groundborne vibration | Less than Significant Impact | N/A | Less than Significant Impact |
| Aircraft noise | No impact | N/A | No impact |
| The proposed project is not located near noise-sensitive receptors. Construction noise from the proposed project would be temporary and would attenuate before reaching sensitive receptors. Minimal operational noise would be generated by pumps at the site; sensitive receptors would not be exposed to this noise and it would be consistent with the existing ambient noise conditions. There are no nearby sensitive receptors or structures that would experience groundborne vibration from project construction. The proposed project site is outside the noise impact area for the Jacqueline Cochran Regional Airport and would not expose residents or workers to noise. The No Project/No Action Alternative would include demolition of existing facilities and would generate temporary noise and groundborne vibration; impacts would be less than significant. | | | |
| **Population and Housing** | | | |
| Population growth; Supplemental NEPA Analysis | Less than Significant Impact | N/A | No impact |
| Displacement of housing or people | No impact | N/A | No impact |

| Issue Areas | Proposed Project IS/MND Findings – Without Mitigation | Proposed Project - With Mitigation (N/A if no mitigation is necessary) | No Project/ No Action |
|---|---|---|---|
| The proposed project would not induce population growth, as it would serve existing CVWD customers in the Mecca and Bombay Beach Production Zones. The proposed project may enable CVWD to consider approving new water meters in Mecca, which would be consistent with planned growth in the area. The project would not displace housing or people. Additionally, the proposed project would not create an environmental justice impact to a minority or low-impact community, as the proposed project would not have no significant impacts. The No Project/No Action Alternative would not displace housing or people, would not include new facilities and would not induce population growth. The No Project/No Action Alternative would provide no benefits to the Mecca and Bombay Beach Production Zones. Their water system currently lacks redundancy and has a single point of failure, thus any interruption to the existing system would have a disproportionate impact on these communities. | | | |
| **Public Services** | | | |
| Substantial adverse impacts associated with new or altered governmental facilities or public services | No impact | N/A | No impact |
| The project would not require or include new or altered governmental facilities. There would be no impacts to public services associated with the proposed project. Similarly, there would be no impacts from the No Project/No Action Alternative. | | | |
| **Recreation** | | | |
| Increase use of existing recreational facilities; Include or require expansion of facilities | No impact | N/A | No impact |
| The project does not propose new recreational facilities that would impact the environment. There would be no impacts to recreation associated with the proposed project. Similarly, there would be no impacts from the No Project/No Action Alternative. | | | |
| **Transportation** | | | |
| Circulation system performance; Emergency access; Supplemental NEPA Analysis | Potentially Significant Impact | Less than Significant Impact | No impact |
| Consistency with CEQA Guidelines section 15064.3 subdivision (b) (VMT) | Less than Significant Impact | N/A | No impact |
| Traffic hazards | No impact | N/A | No impact |
| Construction would require short-term individual lane closures to connect the IXTP 7991 to the existing water main in Hammond Road, and would generate only minimal vehicle trips for construction workers, vendor trips, and hauling. To ensure that potential traffic impacts are less than significant, the proposed project would implement transportation mitigation measures , including notifying emergency service providers and implementing a traffic control plan. The proposed project operational VMT would be minimal and would not conflict with CEQA Guidelines Section 15064.3, subdivision (b). The completed IXTP 7991 facilities would not result in traffic hazards. The No Project/ No Action Alternative involves no construction in Hammond Road and would not impact traffic circulation, emergency access, VMT, alternative transportation facilities, or create traffic hazards. | | | |

| Issue Areas | Proposed Project IS/MND Findings – Without Mitigation | Proposed Project - With Mitigation (N/A if no mitigation is necessary) | No Project/ No Action |
|---|---|---|---|
| **Tribal Cultural Resources** | | | |
| Tribal cultural resources | Potentially Significant Impact | Less than Significant Impact | Potentially Significant Impact |
| CVWD received one formal request to consult, from ACBCI, and has initiated formal consultation. No tribal cultural resources have been identified at the proposed project site; however, there is the potential for undiscovered resources to be encountered during construction. To reduce the potential impacts on tribal cultural resources, the project would implement mitigation measures including best practices in the event of an unanticipated discovery of cultural resources and/or human remains during project construction. Implementation of cultural resources mitigation measures would reduce impacts to less than significant. The No Project/ No Action Alternative would include demolition of existing treatment facilities, which could involve ground disturbing activity and therefore would have the potential for a significant impact on tribal cultural resources. | | | |
| **Utilities and Service Systems** | | | |
| Construction of new utilities causing environmental effects; Sufficient water supply; | Less than Significant Impact | N/A | No impact |
| Solid waste capacity; Solid waste compliance | Less than Significant Impact | N/A | Less than Significant Impact |
| Wastewater treatment capacity | No impact | N/A | No impact |
| The proposed project includes new water treatment facilities, but construction would not have significant environmental effects. No new wastewater, stormwater, power, or telecommunications facilities would be required beyond those included in the proposed project. The proposed project would not add new connections to CVWD's system. CVWD has determined that it has sufficient water supplies to serve project demands, and the proposed project would help serve existing peak demands. The project would not require wastewater treatment capacity. Construction would generate a minimal amount of excess soil that would be reused on site to the extent feasible; long-term solid waste generation would be limited to the adsorption media which would not affect solid waste disposal capacity in the region. The No Project/No Action Alternative would demolish existing facilities and would have no additional demands for water or wastewater facilities. The No Project/No Action alternative would generate solid waste. Solid waste would not be expected to exceed applicable standards or facility capacity, or conflict with solid waste regulations; impacts would be less than significant. | | | |
| **Wildfire** | | | |
| Impair an adopted emergency response or evacuation plan | Potentially Significant | Less than Significant | No Impact |
| Exacerbate wildfire risk due to slope, prevailing winds, or other factors; Exacerbate wildfire risk due to required installation or maintenance of associated infrastructure; Expose people or structures to risks resulting from runoff, post-fire slope instability, or drainage changes | No Impact | N/A | No Impact |

| Issue Areas | Proposed Project IS/MND Findings – Without Mitigation | Proposed Project - With Mitigation (N/A if no mitigation is necessary) | No Project/ No Action |
|---|---|---|---|
| The project area is not a Very High Fire Hazard Severity Zone; thus, no impacts are expected related to exacerbation of wildfire risk. Temporary traffic lane closures during construction would impede emergency response; mitigation to require a Traffic Management Plan would reduce impacts to less than significant. The No Project/No Action Alternative would involve demolition of existing structures. It would not involve work in a Very High Fire Hazard Severity Zone and would not require traffic lane closures, and would thus have no impacts associated with exacerbation of wildfire risk and would not impact emergency response or evacuation plans. | | | |

# 5. REPORT PREPARATION

## 5.1 Report Authors

This report was prepared by the Coachella Valley Water District, Woodard & Curran, and Rincon Consultants, Inc. Staff from the agency and companies that were involved include:

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# APPENDIX A: USDA GUIDE FOR PREPARING ENVIRONMENTAL ASSESSMENTS UNDER §1907-C FOR PROJECTS WITH A CEQA DOCUMENT

# ATTACHMENT C

## Guide for Preparing Environmental Assessments Under § 1970-C

## For Projects with a CEQA Document

This attachment is to be used for those proposals that have had a CEQA document (negative declaration, mitigated negative declaration or environmental impact report) prepared and the level of NEPA review is an Environmental Assessment (EA). The NEPA EA should not be finalized until the CEQA "Notice of Determination" has been issued or in the case of an Environmental Impact Report (EIR), not until the "Notice of Completion" for the draft EIR has been issued.

For each of the EA sections listed below insert the page number where the item is discussed in the CEQA document. If the CEQA document does not address the required information, please add a NEPA exhibit addressing the needed information. If the requested information is not applicable to the project, enter a "N/A". For each resource analyzed the determination of effect must be based on NEPA language and not CEQA.

**Attached is the following CEQA document:**

☐ Negative Declaration ☒ Mitigated Negative Declaration ☐ Environmental Impact Report

**Information to be included in the Environmental Assessment**

| | CEQA Page or NEPA Exhibit |
|---|---|
| **1.0) PROJECT DESCRIPTION/PURPOSE AND NEED** | |
| **1.1) Project description and location** | |
| 1) Description of all land purchases, easements, rights-of-way procurement, etc. project-related activities. The EA must document the land ownership of each project site and/or right-of-way (ROW) and easements. | Section 2.1, p. 2-1 |
| 2) Description of proposed clearing, grading, excavation, paving, new construction, utility installations, fencing, etc. that will be involved with the project. | Section 2.5, pp. 2-8 to 2-10<br>Section 2.6, pp. 2-131to 2-14 |
| 3) Provide a location description (address, APN, Section, Township & Range) and maps for each site affected by project-related activities. | Section 2.3, p. 2-4 |
| a) Maps must be equivalent to a Geological Survey 7.5-minute quadrangle map at a map scale of 1:24,000; larger scale maps may be provided for site-specific proposals. | Figure 2-2, p. 2-5<br>Figure 2-3, p. 2-6 |

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b) All project elements, must be clearly shown on a map. If appropriate, photographs or aerial photographs of site-specific conditions may also be provided.

Figure 2-6, p. 2-14

### 12 Purpose and Need

1) Underlying purpose of and need for the applicant's proposal and for which Agency financial assistance is being requested;

Section 2.2, pp. 2-1 to 2-2

2) Agency's authority and program objectives in responding to the proposal under consideration.

Section 2.2, p. 2-2

In order to meet the second criterion (b) stated above, the following statement describing the Agency's program objectives **must** be included in this section

Section 2.2, p. 2-2

*"USDA, Rural Development is a mission area that includes three federal agencies – Rural Business-Cooperative Service, Rural Housing Service, and Rural Utilities Service. The agencies have in excess of 50 programs that provide financial assistance and a variety of technical and educational assistance to eligible rural and tribal populations, eligible communities, individuals, cooperatives, and other entities with a goal of improving the quality of life, sustainability, infrastructure, economic opportunity, development, and security in rural America. Financial assistance can include direct loans, guaranteed loans, and grants in order to accomplish program objectives."*

In addition to this broad mission statement, the EA should identify the specific program authority under which the applicant is seeking federal financial assistance (if applicants are unsure of the exact program title and authority, contact the Agency's program officials).

## 2.0) ALTERNATIVES EVALUATED INCLUDING THE PROPOSED ACTION

### 2.1 Proposed Action

All EAs must evaluate other reasonable alternatives whenever the proposal involves potential adverse effects to environmental resources.

Section 4, pp. 4-1 to 4-2

### 2.2 Other Alternatives Available

Sites
Designs
Sources of Services

Section 4.1, pp. 4-1 to 4-2

### 2.3 No Action Alternative

For applicant proposals that are less complicated, single-site actions, and in accordance with 7 CFR § 1970.13(a), applicants are only required to consider and document the analysis of the "No Action" alternatives in the EA as long as there are no potential adverse effects to environmental resources.

Section 4.2, pp. 4-2 to 4-3
Section 4.3, pp. 4-3 to 4-12

# 3.0) Affected Environment and Environmental Consequences

## 3.1 LAND USE

### 3.1.1 General Land Use

1) Existing zoning ordinances, land use plans, development plans, etc. — Section 3.11, pp. 3-65 to 3-66

2) Total land area required and/or proposed for purchase and the area that will be disturbed by construction for and operation of the proposal; — Section 2.6, p. 2-12

3) Current land uses in the area affected by the proposal, such as residential, commercial, agricultural, rangeland, forest land, recreational, etc. — Section 3.11, pp. 3-65 to 3-66

4) Compatibility of the proposal with existing, if any, local, regional or state land use plans or controls; — Section 3.11, pp. 3-65 to 3-66

5) If necessary, any mitigation measures. — N/A

### 3.1.2 IMPORTANT FARMLAND

1) Areas of important farmland directly or indirectly affected by the proposal including the amount of area to be disturbed; consider whether alternatives are available that will avoid a conversion of important farmland to nonagricultural uses. A map of important farmland should be included. — Section 3.2, pp. 3-9 to 3-13

2) The ER must document whether any project site (except utility line construction) will convert agricultural lands defined as important by the Farmland Protection Act. Consultation with USDA NRCS, if appropriate, will commence. NRCS uses a land evaluation and site assessment (LESA) system to establish a "farmland conversion impact rating" score on proposed project sites. This score is used as an indicator for applicants and the Agency to consider alternative sites if the potential adverse impacts on farmland exceed the recommended allowable level (if total points are equal or exceed 160, alternative sites must be considered). The assessment is completed on a NRCS form, AD-1006, Farmland Conversion Impact Rating. The portions on the form that are indicated to be completed by a federal agency can be input by applicants in coordination with the Agency. The results will be documented on the AD-1006 and if appropriate on NRCS-CPA-106; — Section 3.2, pp. 3-9 to 3-13

3) The effects (direct, indirect, and cumulative) to important farmland; — Section 3.2, pp. 3-9 to 3-13

4) If necessary, any mitigation measures. — N/A

5) If important farmland conversion will occur the Agency, will coordinate the submittal of Form AD-1006 to the NRCS for processing. Implementation guidelines are located at 1970 Subpart L – "Land Use and Formally Classified Lands." — N/A

### 3.1.3 FORMALLY CLASSIFIED LANDS

1) The location, type, and amount of such lands and waters that would be affected by the proposal and any alternatives considered; note that linear proposals that may be using a right-of-way (ROW) through classified lands must be coordinated with the appropriate land managing agency(ies) or tribes as early as possible; — Section 3.11, p. 3-66

2) Correspondence and any comments received from agencies and/or tribes administering the potentially affected lands; specify if any special use or other permits are required and the process for obtaining them; — N/A

3) Visual impacts from the proposal; — Section 3.1, p. 3-5 to 3-8

4) The effects (direct and indirect) to any such resources; — Section 3.11, p. 3-66

5) If necessary, any mitigation measures. — N/A

## 3.2 FLOODPLAINS

1) If the proposal or any portion thereof will be located in a 100-year floodplain or 500-year floodplain for critical facilities, particularly if it is proposed to be located in the designated floodway (floodways are defined as an area identified on a FIRM or FHBM that represents the portion of the floodplain that carries the majority of the flood flow and often is associated with high velocity flows and debris impact); — Section 3.10, pp. 3-58 to 3-64

2) The area of floodplain potentially affected; indicate graphically the location of proposal components or facilities and evaluate impacts to the floodplain. A map should be included. — Figure 3-7, p. 3-61

3) Any local floodplain development requirements and permits; — N/A

4) As applicable and discussed above, the information necessary to meet the requirements of the eight-step process outlined in E.O. 11988; — N/A

5) Practicable alternatives to locating facilities in a floodplain (include alternative sites or routes located outside the floodplain); — N/A

6) If the determination is made that no practicable alternatives exist to locating in the floodplain, a justification and recommended measures to minimize impacts and restore and preserve floodplain values; — N/A

7) If a structure will be located within a floodplain, a completed FEMA Form 086-0-32; — N/A

8) If necessary, any mitigation measures. — N/A

## 3.3 WETLANDS

1) Location of wetlands in relation to the area affected by the proposal, the amount (acres or linear feet) that would be physically affected by proposed construction, and a description of potential impacts (loss/conversion, temporary impact with hydrological or other indirect impacts, restoration efforts, etc.); Section 3.4, p. 3-27, p. 3-31

2) If potential wetlands impacts are likely, applicants must develop and submit the analysis and justification to the Agency for concurrence that no practicable alternative exists for any affects to or conversions of wetlands. For actions involving linear utility infrastructure where utilities are proposed to be installed in existing, previously disturbed rights-of-way or that are authorized under applicable Clean Water Act, Section 404 nationwide permits will not require the consideration of alternatives. N/A

3) If appropriate for actions that require individuals permits, function and habitat value of wetlands likely affected by the proposal; N/A

4) Type of permit necessary and current status of USACE review; N/A

5) If necessary, any mitigation measures (special conditions outlined in an USACE permit) to avoid, minimize or compensate for any impacts to wetlands. N/A

6) Provide any Wetland Delineation Reports prepared for the project. N/A

**<u>ConAct Programs:</u> Agency programs authorized under Section 363 of the Consolidated Farm and Rural Development Act <u>may not utilize Agency funds</u> to fill, alter or manipulate a wetland. Check with the Agency to ensure that the program you are applying for does not need to separate funds for wetland impacts, if proposed.**

## 3.4 WATER RESOURCES

1) Location of water bodies that may be receiving waters for wastewater effluent discharges for existing and proposed facilities; N/A

2) Location of water bodies used as sources of potable or industrial water; N/A

3) All aquifers utilized for and affected by water supply operations or that may be affected by runoff, infiltration, or any operational activities from wastewater treatment or solid waste facilities; Section 3.10, pp. 3-58 to 3-60

4) Any groundwater protection programs for sole source aquifers or recharge areas and the results and status of any coordination with USEPA or state agencies; Section 3.10, p. 3-64

5) Any watershed management plans or other land use plans in the area affected by the proposal, project construction activities, or facility operations; Section 3.10, pp. 3-58 to 3-64

6) Possible effects from temporary construction activities and construction best management practices that need to be instituted during construction; Section 3.10, pp. 3-62

7) If necessary, any mitigation measures. N/A

## 3.5 COASTAL RESOURCES

1) Identify activities that are proposed to be located in the coastal zone or will otherwise affect those areas; N/A

2) Coordination conducted with the State coastal management program office concerning the proposal's consistency determination, and documentation of State CMP concurrence; N/A

3) Status of consistency determination with State CMP Office using CZMA worksheet or similar documentation; N/A

4) If necessary, mitigation measures required to achieve consistency with the State's coastal management program. N/A

## 3.6 BIOLOGICAL RESOURCES

### 3.6.1 General Fish, Wildlife, and Vegetation Issues

1. The vegetative composition and fish and wildlife species that are likely to inhabit the area affected by the proposal; consider the relative amount of each vegetation type, and the extent to which each type of vegetation would be affected; Section 3.4, pp. 3-22 to 3-27

2. Potential impacts to fish and wildlife resources. Section 3.4, pp. 3-27 to 3-31

3. An estimate of the amount of vegetation clearing required for the proposal and each alternative considered; include a description of vegetation clearing methodology and future maintenance practices; Section 3.4, p. 3-28

4. The short and long-term effects of proposed vegetative clearing, including those related to right-of-way or other maintenance practices; Section 3.4, p. 3-28

5. Any special areas of concern such as riparian zones, wetlands, prairie remnants, or forested tracts (particularly bottomland hardwoods or old growth) that may require more detailed information or that may be afforded special protection; Section 3.4, pp. 3-25 to 3-28

6. Potential impacts to bald or golden eagles. These impacts may result from the proximity of proposal activities to these species' nests, thus disturbing or interfering with their normal breeding, feeding, or sheltering habits and causing injury, death, or nest abandonment; Section 3.4, p. 3-30 to 3-31

7. If necessary, any mitigation measures. N/A

### 3.6.2 ESA Listed Threatened and Endangered Species:

1. Federally-listed or proposed threatened or endangered species and a delineation of any critical habitat in the area effected by the proposal; — Section 3.4, pp. 3-29 to 3-30

2. Potential impacts of the proposal and any alternatives on Federally-listed or proposed threatened or endangered species and proximity to designated critical habitat; — Section 3.4, pp. 3-25 to 3-28

3. Determinations/findings and concurrence correspondence from the USFWS and NMFS concerning whether or not the proposal is likely to affect a listed or proposed species or designated critical habitat; Provide a final determination of effect utilizing NEPA language:
   a) Species/Habitat Not Present
   b) Species/Habitat Present, No Effect
   c) Species/Habitat Present May Effect, Not Likely to Adversely Affect (USFWS provides determination after formal/informal consultation) — N/A

4. If necessary, mitigation measures. — N/A

### 3.6.3 Migratory Bird Treaty Act

1. Potential direct impacts to birds through collision, and direct or indirect impacts to nests or nesting or migratory habitat; — Section 3.4, pp. 3-27 to 3-28

2. Potential impacts of the proposal to "important bird areas" as identified by the National Audubon Society; — Section 3.4, p. 3-30 to 3-31

3. Potential impacts of the proposal to critical areas for use by shorebirds, as identified in the Western Hemisphere Shorebird Reserve Network; — Section 3.4, p. 3-31

4. If the proposal is likely to adversely affect any of the listed species or habitats in the above datasets, consultation with the USFWS will be required to identify project alternatives and avoidance measures; — N/A

5. If necessary, any mitigation measures. — N/A

### 3.6.4 INVASIVE SPECIES

1. Any existing invasive plant or animal terrestrial or aquatic species that could do harm to native habitats within the area affected by the proposal; — Section 3.4, p. 3-31

2. State listings of noxious weeds and other invasive species; — Section 3.4, p. 3-31

3. The potential effect of disturbances or likelihood the proposal could introduce, spread, or contribute to the continued existence of noxious weeds or non-native species in the area affected by the proposal; — Section 3.4, p. 3-31

4. As necessary, any mitigation measures — N/A

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## 3.7 HISTORIC AND CULTURAL PROPERTIES

1. The EA must describe all steps taken to identify historic properties as required under section 106 of the National Historic Preservation Act. USDA RD CA has a Programmatic Agreement (PA) with the State Historic Preservation Officer (SHPO) that frequently eliminates the need for SHPO consultation. Applicants should not contact the SHPO, without asking the USDA RD processing office to determine how to proceed under the PA. — Section 3.5, pp. 3-32 to 3-33 ~~Appendix D~~

a) A clear delineation of the APE; — Section 3.5, pp. 3-32 to 3-33 ~~Appendix D~~

b) A description of the methods used to identify historic properties and cultural resources within the APE; — Section 3.5, pp. 3-33 to 3-33 ~~Appendix D~~

c) If there is an adverse effect to a historic property or cultural resource, alternatives that were considered that would avoid, minimize, or mitigate the adverse effect to the historic property or cultural resource; — Section 3.5, pp. 3-34 to 3-36

d) Documentation of consultation and findings with the SHPO, THPO and other consulting parties; the Agency will, as needed, assist applicants in SHPO and tribal consultation; — Section 3.5, pp. 3-34 to 3-36

e) If necessary, any mitigation measures. — Section 3.5, pp. 3-35

2. Tribal Consultation.
Federally recognized Indian tribes are legally considered sovereign nations entitled to a special government-to-government relationship with the federal government. An applicant must involve USDA RD in S.106 review whenever a federally recognized Indian tribe requests the participation of the federal agency. The direct participation of USDA RD is required because all decision-making authority in S.106 review rests with the federal agency. — Section 3.5, pp. 3-35 to 3-36

3. Provide a final determination of effect utilizing NEPA language: — Section 3.5, pp. 3-35 to 3-36

a) No Potential to Affect
b) No Historic Properties Affected
c) No Adverse Effect to Historic Properties (requires consultation with SHPO/THPO)

4. Provide mitigation measures as applicable. — Section 3.5, pp. 3-35 to 3-36

## 3.8 AESTHETICS

1. Visually sensitive areas or landscape features that are in the vicinity of the proposal; — Section 3.1, pp. 3-5 to 3-6

2. Extent to which an area would be visually impacted by the proposal, considering structure heights, viewing angles, and the degree of screening between the project and the sensitive area or feature; — Section 3.1, pp. 3-7 to 3-8

3. If necessary, any mitigation measures. — N/A

## 3.9 AIR QUALITY

1. If the proposal is located in a designated nonattainment or maintenance area, it may require a conformity evaluation in accordance with the applicable implementation plan; N/A, Section 3.3, pp. 3-20 to 3-21

2. If the above applies, describe the ambient or seasonal meteorological conditions to the extent that they influence dispersal or fate of emissions, and the type and levels of pollutant emissions resulting from construction and operation of the facility; for more complex proposals, air modeling may be required; N/A

3. Any required permits and the status or result of associated processes, hearings and agency decisions for issuance; Section 2.9, p. 2-17

4. Anticipated effects (including duration) on air quality from construction activities, especially if the appropriate enforcement agency has not provided an exemption or project review; Section 3.3, pp. 3-18 to 3-19

5. Any special conditions identified in permits required as mitigation for emissions; N/A

6. Sources of odors and mitigation measures necessary to minimize off-site migration of odors; Section 3.3, p. 3-20

7. If necessary, any mitigation measures. N/A

## 3.10 SOCIO-ECONOMIC IMPACT ASSESSMENT/ENVIRONMENTAL JUSTICE:

1. How the proposal would change people's lives beyond the immediate provision of a service (electricity, water, telecommunications, public services, etc.) or facility (housing, community facility, business, etc.); Section 3.14, pp. 3-65 to 3-79

2. Describe how the proposal or the area affected by the proposal is situated in proximity to commercial/residential areas, public facilities, or key transportation facilities. How would the proposal change traffic patterns or intensity? Would there be an increased risk for accidents? Would there be more noise or other disruption? Section 3.17, pp. 3-84 to 3-88

3. Population numbers and how they are projected to change in magnitude or distribution; Section 3.14, p. 3-75

4. Consider how individual businesses and business districts might be affected in terms of the level of commerce; Section 3.14, pp. 3-78 to 3-79

5. The presence and distribution of any minority and low-income populations in the study area (the Agency will complete RD Form 2006-38, and it should be included as an attachment to the EA); if such populations are present, describe their opportunity to participate in the environmental review process, particularly if there is a potential for a disproportionate adverse effect, and any extra outreach measures such as providing public notices in specific locations or in additional languages; Section 3.14, pp 3-76 to 3-79

6. If necessary, any mitigation measures that would reduce adverse human health or environmental effects to minority and low-income populations. N/A

## 3.11 MISCELLANEOUS ISSUES

### 3.11.1 NOISE

1. The ambient noise environment, the distance of the proposal from noise sensitive receptors, proposed hours of operation, and any applicable noise regulations or ordinances that were considered; Section 3.13, pp. 3-68 to 3-71

2. Noise sources during construction and operation and the projected levels (intensity, duration, periodization) of noise generated; Section 3.13, pp. 3-71 to 3-74

3. If necessary, mitigation measures to reduce sound levels to noise sensitive receptors. N/A

### 3.11.2 TRANSPORTATION

1. The existing facilities and routes (road, rail, air) that could be affected by the proposal; consider the need for road realignments, signalization, increased delay times, etc., or if the proposal or components need to be re-located to avoid an impact; indicate if any transportation studies were conducted and summarize the results; Section 3.17, pp. 3-84 to 3-85

2. Coordination conducted with federal and state transportation agencies, and any permissions/authorizations required/obtained or measures taken to accommodate agency concerns; N/A

3. Movement of products, raw material or waste in and out of a proposed facility and how such movements may affect congestion, noise, odors, or dust; Section 3.17, pp. 3-85 to 3-88

4. Impacts of the proposal related to transportation patterns, circulation, ingress and egress; Section 3.17, pp. 3-84 to 3-88

5. If necessary, any mitigation measures. Section 3.17, pp. 3-87 to 3-88

## 3.12 HUMAN HEALTH AND SAFETY

### 3.12.1 ELECTROMAGNETIC FIELDS AND SAFETY

1. Any design parameters that would limit and ameliorate receptor exposure to EMFs; Section 3.9, p 3-57, N/A

2. If any state-specific design or siting requirements exist regarding EMF, and, if so, how they are incorporated into project planning; N/A

3. How EMF considerations were included in the siting process to limit or avoid exposure to humans or sensitive receptors such as schools; N/A

4. If necessary, any mitigation measures. N/A

### 3.12.2 ENVIRONMENTAL RISK MANAGEMENT

1. Recognized environmental conditions identified in a Phase I or II Environmental Site Assessment (ESA) or a Transaction Screen Questionnaire (TSQ) (or other environmental due diligence procedures) — Section 3.9, pp. 3-56 to 3-57

2. Presence of lead paint, asbestos or mold; — Section 3.9, p. 3-54

3. Use, storage, release and/or disposal of toxic materials; — Section 3.9, pp. 3-53 to 3-57

4. Any USEPA or state Superfund site or priority clean-up site on or near the site of the proposal; — Section 3.9, p. 3-57

5. Whether applicant/facility is under any corrective action or regulatory remedial action plan; — Section 3.9, p. 3-57

6. Status of any violations and cleanup; — Section 3.9, p. 3-57

7. Presence of above-ground or underground storage tanks; — Section 3.9, p. 3-57

8. Whether the operation of facility could result in accidental spills of hazardous or toxic substances or result in hazardous air or water emissions; — Section 3.9, pp. 3-53 to 3-57

9. If necessary, any mitigation measures. — Section 3.9, pp. 3-55 to 3-57

### 3.13 CORRIDOR ANALYSIS (if applicable)

1. Affected Environment — N/A

2. Environmental Consequences — N/A

3. If necessary, any mitigation measures. — N/A

## 4.0) CUMULATIVE EFFECTS

1. Summarize the direct and indirect impacts of the proposal on the environmental resources. — Section 3.21, pp. 3-100 to 3-101

2. Identify the spatial and temporal boundaries of the impacts. — Section 3.21, pp. 3-100 to 3-101

3. Summary table integrating the identified direct and indirect effects. — Section 3.21, pp. 3-100 to 3-101

## 5.0) SUMMARY OF MITIGATION MEASURES

Summary of the required mitigation measures, timing and the responsible party for implementing the mitigation measures. — See Mitigation Monitoring and ~~Reporting~~ Program,

## 6.0) COORDINATION, CONSULTATION AND CORRESPONDENCE

Copies of all coordination and consultation letters — Appendix D

## 7.0) REFERENCES — Section 6.2, p. 6-1

## 8.0) LIST OF PREPARERS

## 9.0) PUBLIC NOTICES

a) Notice of Availability (NOA). EAs will require a public notice announcing the availability of the EA for public review and announcing a comment period. Once the EA has been completed and accepted by the Agency as a federal document, the Agency will authorize the applicant to publish a public notice in a newspaper(s) of general circulation in the area where the proposal is located any unique public notice requirements will be conveyed to the applicant. The public is to be afforded 14-30 days to submit comments (consult with the Agency to determine the appropriate period of time). The Agency will review and respond to comments received and direct the applicant to make any necessary or appropriate changes to the EA.

b) Finding of No Significant Impact (FONSI). A second public notice will be published by the applicant announcing the availability of the Agency's environmental decision (FONSI). Publication authorization and any specific requirements will be provided to the applicant by the Agency. There is no public comment period for the FONSI. The notice shall briefly describe the applicant's proposal, reasons why the proposal will not have a significant impact on the human environment, summarize how any outstanding issues or public/agency comments were resolved, including mitigation measures adopted to address any adverse impacts, and include the statement that an EIS will not be prepared. The notice must mention the Agency funding the proposal as well as identify the locations where the public may review the EA and FONSI. Upon request, the Agency or the applicant will make available or provide copies of the EA/FONSI to anyone requesting them. Documents will be provided without charge or at a cost not exceeding reproduction costs.

c) The EA public notices (NOA and FONSI) should also incorporate as appropriate preliminary and final notice language if there will be impacts to floodplains or wetlands.

# APPENDIX B: CALEEMOD DATA SHEETS

# IXTP 7991 Replacement

**Riverside-Salton Sea County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 4.50 | 1000sqft | 0.10 | 4,500.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.4 | **Precipitation Freq (Days)** | 28 |
| **Climate Zone** | 15 | | | **Operational Year** | 2022 |
| **Utility Company** | Imperial Irrigation District | | | | |
| **CO2 Intensity (lb/MWhr)** | 1270.9 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction estimated to require approximately one year.

Trips and VMT - Increased worker trips for building construction phase.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Two trips per week.

Energy Use - Estimated net increase in energy use.

Water And Wastewater - The IXTP would not consume water for indoor or outdoor use that is not already captured in the total kWh/year estimate.

Solid Waste - The IXTP would not produce additional trash beyond existing amounts.

Construction Off-road Equipment Mitigation - SCAQMD BMPs

Area Mitigation -

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps -

IXTP 7991 Replacement - Riverside-Salton Sea County, Annual

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0 | 5 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 10.00 | 20.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |
| tblConstructionPhase | NumDays | 2.00 | 25.00 |
| tblConstructionPhase | NumDays | 100.00 | 179.00 |
| tblConstructionPhase | NumDays | 5.00 | 10.00 |
| tblEnergyUse | LightingElect | 2.37 | 0.00 |
| tblEnergyUse | NT24E | 36.52 | 31.94 |
| tblEnergyUse | NT24NG | 48.51 | 0.00 |
| tblEnergyUse | T24E | 1.06 | 0.00 |
| tblEnergyUse | T24NG | 3.25 | 0.00 |
| tblGrading | MaterialExported | 0.00 | 500.00 |
| tblGrading | MaterialImported | 0.00 | 500.00 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblSolidWaste | SolidWasteGenerationRate | 4.23 | 0.00 |
| tblStationaryGeneratorsPumpsEF | CH4_EF | 0.07 | 0.07 |
| tblStationaryGeneratorsPumpsEF | ROG_EF | 2.2480e-003 | 2.2477e-003 |
| tblStationaryGeneratorsPumpsUse | HorsePowerValue | 0.00 | 300.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerYear | 0.00 | 168.00 |
| tblStationaryGeneratorsPumpsUse | NumberOfEquipment | 0.00 | 1.00 |
| tblTripsAndVMT | WorkerTripNumber | 2.00 | 10.00 |
| tblVehicleTrips | ST_TR | 1.68 | 0.00 |
| tblVehicleTrips | SU_TR | 1.68 | 0.00 |
| tblVehicleTrips | WD_TR | 1.68 | 0.10 |
| tblWater | IndoorWaterUseRate | 1,040,625.00 | 0.00 |

# 2.0 Emissions Summary

## 2.1 Overall Construction

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.0973 | 0.9462 | 0.9016 | 1.5500e-003 | 0.0264 | 0.0514 | 0.0778 | 9.4500e-003 | 0.0476 | 0.0571 | 0.0000 | 136.2493 | 136.2493 | 0.0357 | 0.0000 | 137.1417 |
| **Maximum** | **0.0973** | **0.9462** | **0.9016** | **1.5500e-003** | **0.0264** | **0.0514** | **0.0778** | **9.4500e-003** | **0.0476** | **0.0571** | **0.0000** | **136.2493** | **136.2493** | **0.0357** | **0.0000** | **137.1417** |

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.0973 | 0.9462 | 0.9016 | 1.5500e-003 | 0.0195 | 0.0514 | 0.0709 | 6.2900e-003 | 0.0476 | 0.0539 | 0.0000 | 136.2491 | 136.2491 | 0.0357 | 0.0000 | 137.1415 |
| **Maximum** | **0.0973** | **0.9462** | **0.9016** | **1.5500e-003** | **0.0195** | **0.0514** | **0.0709** | **6.2900e-003** | **0.0476** | **0.0539** | **0.0000** | **136.2491** | **136.2491** | **0.0357** | **0.0000** | **137.1415** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **26.25** | **0.00** | **8.90** | **33.44** | **0.00** | **5.52** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| **1** | **1-4-2021** | **4-3-2021** | 0.2781 | 0.2781 |
| **2** | **4-4-2021** | **7-3-2021** | 0.2901 | 0.2901 |
| **3** | **7-4-2021** | **9-30-2021** | 0.2837 | 0.2837 |
| | | **Highest** | 0.2901 | 0.2901 |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0228 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 9.0000e-005 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 82.8561 | 82.8561 | 1.8900e-003 | 3.9000e-004 | 83.0200 |
| Mobile | 1.0000e-004 | 8.3000e-004 | 1.2300e-003 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 4.5000e-004 | 1.2000e-004 | 0.0000 | 1.2000e-004 | 0.0000 | 0.5273 | 0.5273 | 3.0000e-005 | 0.0000 | 0.5279 |
| Stationary | 0.0414 | 0.1156 | 0.1055 | 2.0000e-004 | | 6.0800e-003 | 6.0800e-003 | | 6.0800e-003 | 6.0800e-003 | 0.0000 | 19.1922 | 19.1922 | 2.6900e-003 | 0.0000 | 19.2595 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0642** | **0.1164** | **0.1067** | **2.1000e-004** | **4.5000e-004** | **6.0800e-003** | **6.5300e-003** | **1.2000e-004** | **6.0800e-003** | **6.2000e-003** | **0.0000** | **102.5757** | **102.5757** | **4.6100e-003** | **3.9000e-004** | **102.8074** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0228 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 9.0000e-005 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 82.8561 | 82.8561 | 1.8900e-003 | 3.9000e-004 | 83.0200 |
| Mobile | 1.0000e-004 | 8.3000e-004 | 1.2300e-003 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 4.5000e-004 | 1.2000e-004 | 0.0000 | 1.2000e-004 | 0.0000 | 0.5273 | 0.5273 | 3.0000e-005 | 0.0000 | 0.5279 |
| Stationary | 0.0414 | 0.1156 | 0.1055 | 2.0000e-004 | | 6.0800e-003 | 6.0800e-003 | | 6.0800e-003 | 6.0800e-003 | 0.0000 | 19.1922 | 19.1922 | 2.6900e-003 | 0.0000 | 19.2595 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0642** | **0.1164** | **0.1067** | **2.1000e-004** | **4.5000e-004** | **6.0800e-003** | **6.5300e-003** | **1.2000e-004** | **6.0800e-003** | **6.2000e-003** | **0.0000** | **102.5757** | **102.5757** | **4.6100e-003** | **3.9000e-004** | **102.8074** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/4/2021 | 1/29/2021 | 5 | 20 | |
| 2 | Site Preparation | Site Preparation | 2/1/2021 | 2/2/2021 | 5 | 2 | |
| 3 | Grading | Grading | 2/3/2021 | 3/9/2021 | 5 | 25 | |
| 4 | Building Construction | Building Construction | 3/10/2021 | 11/15/2021 | 5 | 179 | |
| 5 | Paving | Paving | 11/16/2021 | 11/29/2021 | 5 | 10 | |

**Acres of Grading (Site Preparation Phase): 1**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 4 | 10.00 | 0.00 | 13.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 125.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 10.00 | 1.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

## 3.2 Demolition - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 1.4400e-003 | 0.0000 | 1.4400e-003 | 2.2000e-004 | 0.0000 | 2.2000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.9700e-003 | 0.0725 | 0.0757 | 1.2000e-004 | | 4.0700e-003 | 4.0700e-003 | | 3.8900e-003 | 3.8900e-003 | 0.0000 | 10.4093 | 10.4093 | 1.9400e-003 | 0.0000 | 10.4578 |
| **Total** | **7.9700e-003** | **0.0725** | **0.0757** | **1.2000e-004** | **1.4400e-003** | **4.0700e-003** | **5.5100e-003** | **2.2000e-004** | **3.8900e-003** | **4.1100e-003** | **0.0000** | **10.4093** | **10.4093** | **1.9400e-003** | **0.0000** | **10.4578** |

## 3.2 Demolition - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 3.0000e-005 | 1.4400e-003 | 2.0000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 1.2000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.4664 | 0.4664 | 3.0000e-005 | 0.0000 | 0.4671 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.3000e-004 | 2.9000e-004 | 3.1300e-003 | 1.0000e-005 | 1.0900e-003 | 1.0000e-005 | 1.1000e-003 | 2.9000e-004 | 1.0000e-005 | 3.0000e-004 | 0.0000 | 0.8829 | 0.8829 | 2.0000e-005 | 0.0000 | 0.8835 |
| **Total** | **4.6000e-004** | **1.7300e-003** | **3.3300e-003** | **1.0000e-005** | **1.2000e-003** | **1.0000e-005** | **1.2200e-003** | **3.2000e-004** | **1.0000e-005** | **3.3000e-004** | **0.0000** | **1.3493** | **1.3493** | **5.0000e-005** | **0.0000** | **1.3505** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 6.5000e-004 | 0.0000 | 6.5000e-004 | 1.0000e-004 | 0.0000 | 1.0000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.9700e-003 | 0.0725 | 0.0757 | 1.2000e-004 | | 4.0700e-003 | 4.0700e-003 | | 3.8900e-003 | 3.8900e-003 | 0.0000 | 10.4093 | 10.4093 | 1.9400e-003 | 0.0000 | 10.4578 |
| **Total** | **7.9700e-003** | **0.0725** | **0.0757** | **1.2000e-004** | **6.5000e-004** | **4.0700e-003** | **4.7200e-003** | **1.0000e-004** | **3.8900e-003** | **3.9900e-003** | **0.0000** | **10.4093** | **10.4093** | **1.9400e-003** | **0.0000** | **10.4578** |

## 3.2 Demolition - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 3.0000e-005 | 1.4400e-003 | 2.0000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.4664 | 0.4664 | 3.0000e-005 | 0.0000 | 0.4671 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.3000e-004 | 2.9000e-004 | 3.1300e-003 | 1.0000e-005 | 1.0400e-003 | 1.0000e-005 | 1.0500e-003 | 2.8000e-004 | 1.0000e-005 | 2.8000e-004 | 0.0000 | 0.8829 | 0.8829 | 2.0000e-005 | 0.0000 | 0.8835 |
| **Total** | **4.6000e-004** | **1.7300e-003** | **3.3300e-003** | **1.0000e-005** | **1.1500e-003** | **1.0000e-005** | **1.1600e-003** | **3.1000e-004** | **1.0000e-005** | **3.1000e-004** | **0.0000** | **1.3493** | **1.3493** | **5.0000e-005** | **0.0000** | **1.3505** |

## 3.3 Site Preparation - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 5.3000e-004 | 0.0000 | 5.3000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 6.4000e-004 | 7.8200e-003 | 4.0300e-003 | 1.0000e-005 | | 3.0000e-004 | 3.0000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 0.8551 | 0.8551 | 2.8000e-004 | 0.0000 | 0.8620 |
| **Total** | **6.4000e-004** | **7.8200e-003** | **4.0300e-003** | **1.0000e-005** | **5.3000e-004** | **3.0000e-004** | **8.3000e-004** | **6.0000e-005** | **2.8000e-004** | **3.4000e-004** | **0.0000** | **0.8551** | **0.8551** | **2.8000e-004** | **0.0000** | **0.8620** |

## 3.3 Site Preparation - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.0000e-005 | 1.0000e-005 | 1.6000e-004 | 0.0000 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0442 | 0.0442 | 0.0000 | 0.0000 | 0.0442 |
| **Total** | **2.0000e-005** | **1.0000e-005** | **1.6000e-004** | **0.0000** | **5.0000e-005** | **0.0000** | **5.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0442** | **0.0442** | **0.0000** | **0.0000** | **0.0442** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 2.4000e-004 | 0.0000 | 2.4000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 6.4000e-004 | 7.8200e-003 | 4.0300e-003 | 1.0000e-005 | | 3.0000e-004 | 3.0000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 0.8551 | 0.8551 | 2.8000e-004 | 0.0000 | 0.8620 |
| **Total** | **6.4000e-004** | **7.8200e-003** | **4.0300e-003** | **1.0000e-005** | **2.4000e-004** | **3.0000e-004** | **5.4000e-004** | **3.0000e-005** | **2.8000e-004** | **3.1000e-004** | **0.0000** | **0.8551** | **0.8551** | **2.8000e-004** | **0.0000** | **0.8620** |

## 3.3 Site Preparation - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.0000e-005 | 1.0000e-005 | 1.6000e-004 | 0.0000 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0442 | 0.0442 | 0.0000 | 0.0000 | 0.0442 |
| **Total** | **2.0000e-005** | **1.0000e-005** | **1.6000e-004** | **0.0000** | **5.0000e-005** | **0.0000** | **5.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0442** | **0.0442** | **0.0000** | **0.0000** | **0.0442** |

## 3.4 Grading - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 9.4700e-003 | 0.0000 | 9.4700e-003 | 5.1800e-003 | 0.0000 | 5.1800e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 9.9600e-003 | 0.0907 | 0.0946 | 1.5000e-004 | | 5.0900e-003 | 5.0900e-003 | | 4.8600e-003 | 4.8600e-003 | 0.0000 | 13.0117 | 13.0117 | 2.4200e-003 | 0.0000 | 13.0723 |
| **Total** | **9.9600e-003** | **0.0907** | **0.0946** | **1.5000e-004** | **9.4700e-003** | **5.0900e-003** | **0.0146** | **5.1800e-003** | **4.8600e-003** | **0.0100** | **0.0000** | **13.0117** | **13.0117** | **2.4200e-003** | **0.0000** | **13.0723** |

## 3.4 Grading - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 3.1000e-004 | 0.0139 | 1.9100e-003 | 5.0000e-005 | 1.0800e-003 | 4.0000e-005 | 1.1200e-003 | 3.0000e-004 | 4.0000e-005 | 3.4000e-004 | 0.0000 | 4.4843 | 4.4843 | 2.7000e-004 | 0.0000 | 4.4912 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.3000e-004 | 3.6000e-004 | 3.9100e-003 | 1.0000e-005 | 1.3600e-003 | 1.0000e-005 | 1.3700e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.1037 | 1.1037 | 3.0000e-005 | 0.0000 | 1.1043 |
| **Total** | **8.4000e-004** | **0.0143** | **5.8200e-003** | **6.0000e-005** | **2.4400e-003** | **5.0000e-005** | **2.4900e-003** | **6.6000e-004** | **5.0000e-005** | **7.1000e-004** | **0.0000** | **5.5880** | **5.5880** | **3.0000e-004** | **0.0000** | **5.5955** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 4.2600e-003 | 0.0000 | 4.2600e-003 | 2.3300e-003 | 0.0000 | 2.3300e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 9.9600e-003 | 0.0907 | 0.0946 | 1.5000e-004 | | 5.0900e-003 | 5.0900e-003 | | 4.8600e-003 | 4.8600e-003 | 0.0000 | 13.0117 | 13.0117 | 2.4200e-003 | 0.0000 | 13.0723 |
| **Total** | **9.9600e-003** | **0.0907** | **0.0946** | **1.5000e-004** | **4.2600e-003** | **5.0900e-003** | **9.3500e-003** | **2.3300e-003** | **4.8600e-003** | **7.1900e-003** | **0.0000** | **13.0117** | **13.0117** | **2.4200e-003** | **0.0000** | **13.0723** |

## 3.4 Grading - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 3.1000e-004 | 0.0139 | 1.9100e-003 | 5.0000e-005 | 1.0400e-003 | 4.0000e-005 | 1.0800e-003 | 2.9000e-004 | 4.0000e-005 | 3.3000e-004 | 0.0000 | 4.4843 | 4.4843 | 2.7000e-004 | 0.0000 | 4.4912 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.3000e-004 | 3.6000e-004 | 3.9100e-003 | 1.0000e-005 | 1.3100e-003 | 1.0000e-005 | 1.3100e-003 | 3.5000e-004 | 1.0000e-005 | 3.6000e-004 | 0.0000 | 1.1037 | 1.1037 | 3.0000e-005 | 0.0000 | 1.1043 |
| **Total** | **8.4000e-004** | **0.0143** | **5.8200e-003** | **6.0000e-005** | **2.3500e-003** | **5.0000e-005** | **2.3900e-003** | **6.4000e-004** | **5.0000e-005** | **6.9000e-004** | **0.0000** | **5.5880** | **5.5880** | **3.0000e-004** | **0.0000** | **5.5955** |

## 3.5 Building Construction - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0694 | 0.7147 | 0.6501 | 1.0200e-003 | | 0.0401 | 0.0401 | | 0.0369 | 0.0369 | 0.0000 | 89.5734 | 89.5734 | 0.0290 | 0.0000 | 90.2977 |
| **Total** | **0.0694** | **0.7147** | **0.6501** | **1.0200e-003** | | **0.0401** | **0.0401** | | **0.0369** | **0.0369** | **0.0000** | **89.5734** | **89.5734** | **0.0290** | **0.0000** | **90.2977** |

## 3.5 Building Construction - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 2.1000e-004 | 8.0900e-003 | 1.5600e-003 | 2.0000e-005 | 5.1000e-004 | 1.0000e-005 | 5.2000e-004 | 1.5000e-004 | 1.0000e-005 | 1.6000e-004 | 0.0000 | 2.0252 | 2.0252 | 1.6000e-004 | 0.0000 | 2.0293 |
| Worker | 3.8200e-003 | 2.5700e-003 | 0.0280 | 9.0000e-005 | 9.7700e-003 | 6.0000e-005 | 9.8300e-003 | 2.5900e-003 | 5.0000e-005 | 2.6500e-003 | 0.0000 | 7.9022 | 7.9022 | 1.8000e-004 | 0.0000 | 7.9069 |
| **Total** | **4.0300e-003** | **0.0107** | **0.0296** | **1.1000e-004** | **0.0103** | **7.0000e-005** | **0.0104** | **2.7400e-003** | **6.0000e-005** | **2.8100e-003** | **0.0000** | **9.9274** | **9.9274** | **3.4000e-004** | **0.0000** | **9.9361** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0694 | 0.7147 | 0.6501 | 1.0200e-003 | | 0.0401 | 0.0401 | | 0.0369 | 0.0369 | 0.0000 | 89.5733 | 89.5733 | 0.0290 | 0.0000 | 90.2976 |
| **Total** | **0.0694** | **0.7147** | **0.6501** | **1.0200e-003** | | **0.0401** | **0.0401** | | **0.0369** | **0.0369** | **0.0000** | **89.5733** | **89.5733** | **0.0290** | **0.0000** | **90.2976** |

## 3.5 Building Construction - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 2.1000e-004 | 8.0900e-003 | 1.5600e-003 | 2.0000e-005 | 4.9000e-004 | 1.0000e-005 | 5.0000e-004 | 1.4000e-004 | 1.0000e-005 | 1.6000e-004 | 0.0000 | 2.0252 | 2.0252 | 1.6000e-004 | 0.0000 | 2.0293 |
| Worker | 3.8200e-003 | 2.5700e-003 | 0.0280 | 9.0000e-005 | 9.3500e-003 | 6.0000e-005 | 9.4100e-003 | 2.4900e-003 | 5.0000e-005 | 2.5400e-003 | 0.0000 | 7.9022 | 7.9022 | 1.8000e-004 | 0.0000 | 7.9069 |
| **Total** | **4.0300e-003** | **0.0107** | **0.0296** | **1.1000e-004** | **9.8400e-003** | **7.0000e-005** | **9.9100e-003** | **2.6300e-003** | **6.0000e-005** | **2.7000e-003** | **0.0000** | **9.9274** | **9.9274** | **3.4000e-004** | **0.0000** | **9.9361** |

## 3.6 Paving - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 3.6100e-003 | 0.0336 | 0.0355 | 6.0000e-005 | | 1.7700e-003 | 1.7700e-003 | | 1.6400e-003 | 1.6400e-003 | 0.0000 | 4.6962 | 4.6962 | 1.3700e-003 | 0.0000 | 4.7304 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **3.6100e-003** | **0.0336** | **0.0355** | **6.0000e-005** | | **1.7700e-003** | **1.7700e-003** | | **1.6400e-003** | **1.6400e-003** | **0.0000** | **4.6962** | **4.6962** | **1.3700e-003** | **0.0000** | **4.7304** |

## 3.6 Paving - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.8000e-004 | 2.6000e-004 | 2.8200e-003 | 1.0000e-005 | 9.8000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.7946 | 0.7946 | 2.0000e-005 | 0.0000 | 0.7951 |
| **Total** | **3.8000e-004** | **2.6000e-004** | **2.8200e-003** | **1.0000e-005** | **9.8000e-004** | **1.0000e-005** | **9.9000e-004** | **2.6000e-004** | **1.0000e-005** | **2.7000e-004** | **0.0000** | **0.7946** | **0.7946** | **2.0000e-005** | **0.0000** | **0.7951** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 3.6100e-003 | 0.0336 | 0.0355 | 6.0000e-005 | | 1.7700e-003 | 1.7700e-003 | | 1.6400e-003 | 1.6400e-003 | 0.0000 | 4.6962 | 4.6962 | 1.3700e-003 | 0.0000 | 4.7304 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **3.6100e-003** | **0.0336** | **0.0355** | **6.0000e-005** | | **1.7700e-003** | **1.7700e-003** | | **1.6400e-003** | **1.6400e-003** | **0.0000** | **4.6962** | **4.6962** | **1.3700e-003** | **0.0000** | **4.7304** |

### 3.6 Paving - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.8000e-004 | 2.6000e-004 | 2.8200e-003 | 1.0000e-005 | 9.4000e-004 | 1.0000e-005 | 9.5000e-004 | 2.5000e-004 | 1.0000e-005 | 2.6000e-004 | 0.0000 | 0.7946 | 0.7946 | 2.0000e-005 | 0.0000 | 0.7951 |
| **Total** | **3.8000e-004** | **2.6000e-004** | **2.8200e-003** | **1.0000e-005** | **9.4000e-004** | **1.0000e-005** | **9.5000e-004** | **2.5000e-004** | **1.0000e-005** | **2.6000e-004** | **0.0000** | **0.7946** | **0.7946** | **2.0000e-005** | **0.0000** | **0.7951** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 1.0000e-004 | 8.3000e-004 | 1.2300e-003 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 4.5000e-004 | 1.2000e-004 | 0.0000 | 1.2000e-004 | 0.0000 | 0.5273 | 0.5273 | 3.0000e-005 | 0.0000 | 0.5279 |
| Unmitigated | 1.0000e-004 | 8.3000e-004 | 1.2300e-003 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 4.5000e-004 | 1.2000e-004 | 0.0000 | 1.2000e-004 | 0.0000 | 0.5273 | 0.5273 | 3.0000e-005 | 0.0000 | 0.5279 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Refrigerated Warehouse-No Rail | 0.45 | 0.00 | 0.00 | 1,166 | 1,166 |
| Total | 0.45 | 0.00 | 0.00 | 1,166 | 1,166 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Refrigerated Warehouse-No | 13.80 | 6.20 | 6.20 | 59.00 | 0.00 | 41.00 | 92 | 5 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 0.545527 | 0.036856 | 0.186032 | 0.115338 | 0.015222 | 0.004970 | 0.017525 | 0.069528 | 0.001397 | 0.001160 | 0.004547 | 0.000932 | 0.000965 |

# 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 82.8561 | 82.8561 | 1.8900e-003 | 3.9000e-004 | 83.0200 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 82.8561 | 82.8561 | 1.8900e-003 | 3.9000e-004 | 83.0200 |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Refrigerated Warehouse-No Rail | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.2 Energy by Land Use - NaturalGas

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Refrigerated Warehouse-No Rail | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Refrigerated Warehouse-No Rail | 143730 | 82.8561 | 1.8900e-003 | 3.9000e-004 | 83.0200 |
| **Total** | | **82.8561** | **1.8900e-003** | **3.9000e-004** | **83.0200** |

### 5.3 Energy by Land Use - Electricity

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Refrigerated Warehouse-No Rail | 143730 | 82.8561 | 1.8900e-003 | 3.9000e-004 | 83.0200 |
| **Total** | | **82.8561** | **1.8900e-003** | **3.9000e-004** | **83.0200** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.0228 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 9.0000e-005 |
| Unmitigated | 0.0228 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 9.0000e-005 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 5.2100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0176 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 9.0000e-005 |
| **Total** | **0.0228** | **0.0000** | **4.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **8.0000e-005** | **8.0000e-005** | **0.0000** | **0.0000** | **9.0000e-005** |

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 5.2100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0176 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 9.0000e-005 |
| **Total** | **0.0228** | **0.0000** | **4.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **8.0000e-005** | **8.0000e-005** | **0.0000** | **0.0000** | **9.0000e-005** |

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Refrigerated Warehouse-No Rail | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Refrigerated Warehouse-No Rail | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Refrigerated Warehouse-No Rail | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Refrigerated Warehouse-No Rail | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|
| Emergency Generator | 1 | 0 | 168 | 300 | 0.73 | Diesel |

### Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

### User Defined Equipment

| Equipment Type | Number |
|---|---|

## 10.1 Stationary Sources

### Unmitigated/Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Type | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Emergency Generator - Diesel (300 - 600 HP) | 0.0414 | 0.1156 | 0.1055 | 2.0000e-004 | | 6.0800e-003 | 6.0800e-003 | | 6.0800e-003 | 6.0800e-003 | 0.0000 | 19.1922 | 19.1922 | 2.6900e-003 | 0.0000 | 19.2595 |
| **Total** | **0.0414** | **0.1156** | **0.1055** | **2.0000e-004** | | **6.0800e-003** | **6.0800e-003** | | **6.0800e-003** | **6.0800e-003** | **0.0000** | **19.1922** | **19.1922** | **2.6900e-003** | **0.0000** | **19.2595** |

## 11.0 Vegetation

# IXTP 7991 Replacement

**Riverside-Salton Sea County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 4.50 | 1000sqft | 0.10 | 4,500.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.4 | **Precipitation Freq (Days)** | 28 |
| **Climate Zone** | 15 | | | **Operational Year** | 2022 |
| **Utility Company** | Imperial Irrigation District | | | | |
| **CO2 Intensity (lb/MWhr)** | 1270.9 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction estimated to require approximately one year.

Trips and VMT - Increased worker trips for building construction phase.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Two trips per week.

Energy Use - Estimated net increase in energy use.

Water And Wastewater - The IXTP would not consume water for indoor or outdoor use that is not already captured in the total kWh/year estimate.

Solid Waste - The IXTP would not produce additional trash beyond existing amounts.

Construction Off-road Equipment Mitigation - SCAQMD BMPs

Area Mitigation -

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps -

IXTP 7991 Replacement - Riverside-Salton Sea County, Summer

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0 | 5 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 10.00 | 20.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |
| tblConstructionPhase | NumDays | 2.00 | 25.00 |
| tblConstructionPhase | NumDays | 100.00 | 179.00 |
| tblConstructionPhase | NumDays | 5.00 | 10.00 |
| tblEnergyUse | LightingElect | 2.37 | 0.00 |
| tblEnergyUse | NT24E | 36.52 | 31.94 |
| tblEnergyUse | NT24NG | 48.51 | 0.00 |
| tblEnergyUse | T24E | 1.06 | 0.00 |
| tblEnergyUse | T24NG | 3.25 | 0.00 |
| tblGrading | MaterialExported | 0.00 | 500.00 |
| tblGrading | MaterialImported | 0.00 | 500.00 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblSolidWaste | SolidWasteGenerationRate | 4.23 | 0.00 |
| tblStationaryGeneratorsPumpsEF | CH4_EF | 0.07 | 0.07 |
| tblStationaryGeneratorsPumpsEF | ROG_EF | 2.2480e-003 | 2.2477e-003 |
| tblStationaryGeneratorsPumpsUse | HorsePowerValue | 0.00 | 300.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerYear | 0.00 | 168.00 |
| tblStationaryGeneratorsPumpsUse | NumberOfEquipment | 0.00 | 1.00 |
| tblTripsAndVMT | WorkerTripNumber | 2.00 | 10.00 |
| tblVehicleTrips | ST_TR | 1.68 | 0.00 |
| tblVehicleTrips | SU_TR | 1.68 | 0.00 |
| tblVehicleTrips | WD_TR | 1.68 | 0.10 |
| tblWater | IndoorWaterUseRate | 1,040,625.00 | 0.00 |

# 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 0.8681 | 8.3666 | 8.0795 | 0.0168 | 0.9563 | 0.4484 | 1.3676 | 0.4680 | 0.4125 | 0.8603 | 0.0000 | 1,652.8671 | 1,652.8671 | 0.3613 | 0.0000 | 1,658.8564 |
| **Maximum** | **0.8681** | **8.3666** | **8.0795** | **0.0168** | **0.9563** | **0.4484** | **1.3676** | **0.4680** | **0.4125** | **0.8603** | **0.0000** | **1,652.8671** | **1,652.8671** | **0.3613** | **0.0000** | **1,658.8564** |

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 0.8681 | 8.3666 | 8.0795 | 0.0168 | 0.5314 | 0.4484 | 0.9427 | 0.2380 | 0.4125 | 0.6303 | 0.0000 | 1,652.8671 | 1,652.8671 | 0.3613 | 0.0000 | 1,658.8564 |
| **Maximum** | **0.8681** | **8.3666** | **8.0795** | **0.0168** | **0.5314** | **0.4484** | **0.9427** | **0.2380** | **0.4125** | **0.6303** | **0.0000** | **1,652.8671** | **1,652.8671** | **0.3613** | **0.0000** | **1,658.8564** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **44.44** | **0.00** | **31.07** | **49.15** | **0.00** | **26.73** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.1249 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 8.6000e-004 | 6.2400e-003 | 0.0106 | 5.0000e-005 | 3.4800e-003 | 3.0000e-005 | 3.5100e-003 | 9.3000e-004 | 3.0000e-005 | 9.6000e-004 | | 4.7321 | 4.7321 | 2.1000e-004 | | 4.7375 |
| Stationary | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.1258** | **6.2400e-003** | **0.0111** | **5.0000e-005** | **3.4800e-003** | **3.0000e-005** | **3.5100e-003** | **9.3000e-004** | **3.0000e-005** | **9.6000e-004** | | **4.7331** | **4.7331** | **2.1000e-004** | **0.0000** | **4.7385** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.1249 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 8.6000e-004 | 6.2400e-003 | 0.0106 | 5.0000e-005 | 3.4800e-003 | 3.0000e-005 | 3.5100e-003 | 9.3000e-004 | 3.0000e-005 | 9.6000e-004 | | 4.7321 | 4.7321 | 2.1000e-004 | | 4.7375 |
| Stationary | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.1258** | **6.2400e-003** | **0.0111** | **5.0000e-005** | **3.4800e-003** | **3.0000e-005** | **3.5100e-003** | **9.3000e-004** | **3.0000e-005** | **9.6000e-004** | | **4.7331** | **4.7331** | **2.1000e-004** | **0.0000** | **4.7385** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/4/2021 | 1/29/2021 | 5 | 20 | |
| 2 | Site Preparation | Site Preparation | 2/1/2021 | 2/2/2021 | 5 | 2 | |
| 3 | Grading | Grading | 2/3/2021 | 3/9/2021 | 5 | 25 | |
| 4 | Building Construction | Building Construction | 3/10/2021 | 11/15/2021 | 5 | 179 | |
| 5 | Paving | Paving | 11/16/2021 | 11/29/2021 | 5 | 10 | |

**Acres of Grading (Site Preparation Phase): 1**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 4 | 10.00 | 0.00 | 13.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 125.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 10.00 | 1.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

## 3.2 Demolition - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.1436 | 0.0000 | 0.1436 | 0.0217 | 0.0000 | 0.0217 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |
| **Total** | **0.7965** | **7.2530** | **7.5691** | **0.0120** | **0.1436** | **0.4073** | **0.5510** | **0.0217** | **0.3886** | **0.4103** | | **1,147.4338** | **1,147.4338** | **0.2138** | | **1,152.7797** |

## 3.2 Demolition - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 3.1600e-003 | 0.1413 | 0.0186 | 4.9000e-004 | 0.0114 | 4.3000e-004 | 0.0118 | 3.1200e-003 | 4.1000e-004 | 3.5300e-003 | | 51.9568 | 51.9568 | 3.0200e-003 | | 52.0322 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0472 | 0.0268 | 0.3675 | 1.0600e-003 | 0.1110 | 6.5000e-004 | 0.1117 | 0.0294 | 6.0000e-004 | 0.0300 | | 105.7658 | 105.7658 | 2.5200e-003 | | 105.8288 |
| **Total** | **0.0503** | **0.1681** | **0.3860** | **1.5500e-003** | **0.1224** | **1.0800e-003** | **0.1235** | **0.0326** | **1.0100e-003** | **0.0336** | | **157.7225** | **157.7225** | **5.5400e-003** | | **157.8611** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0646 | 0.0000 | 0.0646 | 9.7800e-003 | 0.0000 | 9.7800e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | 0.0000 | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |
| **Total** | **0.7965** | **7.2530** | **7.5691** | **0.0120** | **0.0646** | **0.4073** | **0.4720** | **9.7800e-003** | **0.3886** | **0.3984** | **0.0000** | **1,147.4338** | **1,147.4338** | **0.2138** | | **1,152.7797** |

## 3.2 Demolition - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 3.1600e-003 | 0.1413 | 0.0186 | 4.9000e-004 | 0.0109 | 4.3000e-004 | 0.0114 | 3.0100e-003 | 4.1000e-004 | 3.4200e-003 | | 51.9568 | 51.9568 | 3.0200e-003 | | 52.0322 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0472 | 0.0268 | 0.3675 | 1.0600e-003 | 0.1062 | 6.5000e-004 | 0.1069 | 0.0283 | 6.0000e-004 | 0.0289 | | 105.7658 | 105.7658 | 2.5200e-003 | | 105.8288 |
| **Total** | **0.0503** | **0.1681** | **0.3860** | **1.5500e-003** | **0.1171** | **1.0800e-003** | **0.1182** | **0.0313** | **1.0100e-003** | **0.0323** | | **157.7225** | **157.7225** | **5.5400e-003** | | **157.8611** |

## 3.3 Site Preparation - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6403 | 7.8204 | 4.0274 | 9.7300e-003 | | 0.2995 | 0.2995 | | 0.2755 | 0.2755 | | 942.5842 | 942.5842 | 0.3049 | | 950.2055 |
| **Total** | **0.6403** | **7.8204** | **4.0274** | **9.7300e-003** | **0.5303** | **0.2995** | **0.8297** | **0.0573** | **0.2755** | **0.3328** | | **942.5842** | **942.5842** | **0.3049** | | **950.2055** |

## 3.3 Site Preparation - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0236 | 0.0134 | 0.1837 | 5.3000e-004 | 0.0555 | 3.3000e-004 | 0.0558 | 0.0147 | 3.0000e-004 | 0.0150 | | 52.8829 | 52.8829 | 1.2600e-003 | | 52.9144 |
| **Total** | **0.0236** | **0.0134** | **0.1837** | **5.3000e-004** | **0.0555** | **3.3000e-004** | **0.0558** | **0.0147** | **3.0000e-004** | **0.0150** | | **52.8829** | **52.8829** | **1.2600e-003** | | **52.9144** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6403 | 7.8204 | 4.0274 | 9.7300e-003 | | 0.2995 | 0.2995 | | 0.2755 | 0.2755 | 0.0000 | 942.5842 | 942.5842 | 0.3049 | | 950.2055 |
| **Total** | **0.6403** | **7.8204** | **4.0274** | **9.7300e-003** | **0.2386** | **0.2995** | **0.5381** | **0.0258** | **0.2755** | **0.3013** | **0.0000** | **942.5842** | **942.5842** | **0.3049** | | **950.2055** |

## 3.3 Site Preparation - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0236 | 0.0134 | 0.1837 | 5.3000e-004 | 0.0531 | 3.3000e-004 | 0.0534 | 0.0141 | 3.0000e-004 | 0.0144 | | 52.8829 | 52.8829 | 1.2600e-003 | | 52.9144 |
| **Total** | **0.0236** | **0.0134** | **0.1837** | **5.3000e-004** | **0.0531** | **3.3000e-004** | **0.0534** | **0.0141** | **3.0000e-004** | **0.0144** | | **52.8829** | **52.8829** | **1.2600e-003** | | **52.9144** |

## 3.4 Grading - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.7578 | 0.0000 | 0.7578 | 0.4146 | 0.0000 | 0.4146 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |
| **Total** | **0.7965** | **7.2530** | **7.5691** | **0.0120** | **0.7578** | **0.4073** | **1.1652** | **0.4146** | **0.3886** | **0.8032** | | **1,147.4338** | **1,147.4338** | **0.2138** | | **1,152.7797** |

## 3.4 Grading - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0243 | 1.0868 | 0.1429 | 3.7700e-003 | 0.0875 | 3.3100e-003 | 0.0908 | 0.0240 | 3.1700e-003 | 0.0271 | | 399.6675 | 399.6675 | 0.0232 | | 400.2479 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0472 | 0.0268 | 0.3675 | 1.0600e-003 | 0.1110 | 6.5000e-004 | 0.1117 | 0.0294 | 6.0000e-004 | 0.0300 | | 105.7658 | 105.7658 | 2.5200e-003 | | 105.8288 |
| **Total** | **0.0715** | **1.1136** | **0.5104** | **4.8300e-003** | **0.1985** | **3.9600e-003** | **0.2024** | **0.0534** | **3.7700e-003** | **0.0572** | | **505.4333** | **505.4333** | **0.0257** | | **506.0767** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.3410 | 0.0000 | 0.3410 | 0.1866 | 0.0000 | 0.1866 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | 0.0000 | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |
| **Total** | **0.7965** | **7.2530** | **7.5691** | **0.0120** | **0.3410** | **0.4073** | **0.7484** | **0.1866** | **0.3886** | **0.5752** | **0.0000** | **1,147.4338** | **1,147.4338** | **0.2138** | | **1,152.7797** |

## 3.4 Grading - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0243 | 1.0868 | 0.1429 | 3.7700e-003 | 0.0842 | 3.3100e-003 | 0.0875 | 0.0232 | 3.1700e-003 | 0.0263 | | 399.6675 | 399.6675 | 0.0232 | | 400.2479 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0472 | 0.0268 | 0.3675 | 1.0600e-003 | 0.1062 | 6.5000e-004 | 0.1069 | 0.0283 | 6.0000e-004 | 0.0289 | | 105.7658 | 105.7658 | 2.5200e-003 | | 105.8288 |
| **Total** | **0.0715** | **1.1136** | **0.5104** | **4.8300e-003** | **0.1904** | **3.9600e-003** | **0.1943** | **0.0514** | **3.7700e-003** | **0.0552** | | **505.4333** | **505.4333** | **0.0257** | | **506.0767** |

## 3.5 Building Construction - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.7750 | 7.9850 | 7.2637 | 0.0114 | | 0.4475 | 0.4475 | | 0.4117 | 0.4117 | | 1,103.2158 | 1,103.2158 | 0.3568 | | 1,112.1358 |
| **Total** | **0.7750** | **7.9850** | **7.2637** | **0.0114** | | **0.4475** | **0.4475** | | **0.4117** | **0.4117** | | **1,103.2158** | **1,103.2158** | **0.3568** | | **1,112.1358** |

## 3.5 Building Construction - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 2.2400e-003 | 0.0899 | 0.0159 | 2.4000e-004 | 5.7600e-003 | 1.6000e-004 | 5.9200e-003 | 1.6600e-003 | 1.5000e-004 | 1.8100e-003 | | 25.3740 | 25.3740 | 1.9300e-003 | | 25.4222 |
| Worker | 0.0472 | 0.0268 | 0.3675 | 1.0600e-003 | 0.1110 | 6.5000e-004 | 0.1117 | 0.0294 | 6.0000e-004 | 0.0300 | | 105.7658 | 105.7658 | 2.5200e-003 | | 105.8288 |
| **Total** | **0.0494** | **0.1167** | **0.3834** | **1.3000e-003** | **0.1168** | **8.1000e-004** | **0.1176** | **0.0311** | **7.5000e-004** | **0.0319** | | **131.1398** | **131.1398** | **4.4500e-003** | | **131.2510** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.7750 | 7.9850 | 7.2637 | 0.0114 | | 0.4475 | 0.4475 | | 0.4117 | 0.4117 | 0.0000 | 1,103.2158 | 1,103.2158 | 0.3568 | | 1,112.1358 |
| **Total** | **0.7750** | **7.9850** | **7.2637** | **0.0114** | | **0.4475** | **0.4475** | | **0.4117** | **0.4117** | **0.0000** | **1,103.2158** | **1,103.2158** | **0.3568** | | **1,112.1358** |

## 3.5 Building Construction - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 2.2400e-003 | 0.0899 | 0.0159 | 2.4000e-004 | 5.5500e-003 | 1.6000e-004 | 5.7100e-003 | 1.6100e-003 | 1.5000e-004 | 1.7600e-003 | | 25.3740 | 25.3740 | 1.9300e-003 | | 25.4222 |
| Worker | 0.0472 | 0.0268 | 0.3675 | 1.0600e-003 | 0.1062 | 6.5000e-004 | 0.1069 | 0.0283 | 6.0000e-004 | 0.0289 | | 105.7658 | 105.7658 | 2.5200e-003 | | 105.8288 |
| **Total** | **0.0494** | **0.1167** | **0.3834** | **1.3000e-003** | **0.1117** | **8.1000e-004** | **0.1126** | **0.0299** | **7.5000e-004** | **0.0306** | | **131.1398** | **131.1398** | **4.4500e-003** | | **131.2510** |

## 3.6 Paving - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.7214 | 6.7178 | 7.0899 | 0.0113 | | 0.3534 | 0.3534 | | 0.3286 | 0.3286 | | 1,035.3425 | 1,035.3425 | 0.3016 | | 1,042.8818 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.7214** | **6.7178** | **7.0899** | **0.0113** | | **0.3534** | **0.3534** | | **0.3286** | **0.3286** | | **1,035.3425** | **1,035.3425** | **0.3016** | | **1,042.8818** |

## 3.6 Paving - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0849 | 0.0483 | 0.6614 | 1.9100e-003 | 0.1998 | 1.1800e-003 | 0.2010 | 0.0530 | 1.0800e-003 | 0.0541 | | 190.3784 | 190.3784 | 4.5400e-003 | | 190.4919 |
| **Total** | **0.0849** | **0.0483** | **0.6614** | **1.9100e-003** | **0.1998** | **1.1800e-003** | **0.2010** | **0.0530** | **1.0800e-003** | **0.0541** | | **190.3784** | **190.3784** | **4.5400e-003** | | **190.4919** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.7214 | 6.7178 | 7.0899 | 0.0113 | | 0.3534 | 0.3534 | | 0.3286 | 0.3286 | 0.0000 | 1,035.3425 | 1,035.3425 | 0.3016 | | 1,042.8818 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.7214** | **6.7178** | **7.0899** | **0.0113** | | **0.3534** | **0.3534** | | **0.3286** | **0.3286** | **0.0000** | **1,035.3425** | **1,035.3425** | **0.3016** | | **1,042.8818** |

### 3.6 Paving - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0849 | 0.0483 | 0.6614 | 1.9100e-003 | 0.1911 | 1.1800e-003 | 0.1923 | 0.0509 | 1.0800e-003 | 0.0520 | | 190.3784 | 190.3784 | 4.5400e-003 | | 190.4919 |
| **Total** | **0.0849** | **0.0483** | **0.6614** | **1.9100e-003** | **0.1911** | **1.1800e-003** | **0.1923** | **0.0509** | **1.0800e-003** | **0.0520** | | **190.3784** | **190.3784** | **4.5400e-003** | | **190.4919** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 8.6000e-004 | 6.2400e-003 | 0.0106 | 5.0000e-005 | 3.4800e-003 | 3.0000e-005 | 3.5100e-003 | 9.3000e-004 | 3.0000e-005 | 9.6000e-004 | | 4.7321 | 4.7321 | 2.1000e-004 | | 4.7375 |
| Unmitigated | 8.6000e-004 | 6.2400e-003 | 0.0106 | 5.0000e-005 | 3.4800e-003 | 3.0000e-005 | 3.5100e-003 | 9.3000e-004 | 3.0000e-005 | 9.6000e-004 | | 4.7321 | 4.7321 | 2.1000e-004 | | 4.7375 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Refrigerated Warehouse-No Rail | 0.45 | 0.00 | 0.00 | 1,166 | 1,166 |
| Total | 0.45 | 0.00 | 0.00 | 1,166 | 1,166 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Refrigerated Warehouse-No | 13.80 | 6.20 | 6.20 | 59.00 | 0.00 | 41.00 | 92 | 5 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 0.545527 | 0.036856 | 0.186032 | 0.115338 | 0.015222 | 0.004970 | 0.017525 | 0.069528 | 0.001397 | 0.001160 | 0.004547 | 0.000932 | 0.000965 |

# 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Refrigerated Warehouse-No Rail | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.2 Energy by Land Use - NaturalGas

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Refrigerated Warehouse-No Rail | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.1249 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |
| Unmitigated | 0.1249 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0286 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0963 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.0000e-005 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |
| **Total** | **0.1249** | **0.0000** | **4.6000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **9.8000e-004** | **9.8000e-004** | **0.0000** | | **1.0500e-003** |

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0286 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0963 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.0000e-005 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |
| **Total** | **0.1249** | **0.0000** | **4.6000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **9.8000e-004** | **9.8000e-004** | **0.0000** | | **1.0500e-003** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|
| Emergency Generator | 1 | 0 | 168 | 300 | 0.73 | Diesel |

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 10.1 Stationary Sources

**Unmitigated/Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Type | lb/day | | | | | | | | | | lb/day | | | | | |
| Emergency Generator - Diesel (300 - 600 HP) | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 11.0 Vegetation

# IXTP 7991 Replacement

**Riverside-Salton Sea County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 4.50 | 1000sqft | 0.10 | 4,500.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.4 | **Precipitation Freq (Days)** | 28 |
| **Climate Zone** | 15 | | | **Operational Year** | 2022 |
| **Utility Company** | Imperial Irrigation District | | | | |
| **CO2 Intensity (lb/MWhr)** | 1270.9 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction estimated to require approximately one year.

Trips and VMT - Increased worker trips for building construction phase.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Two trips per week.

Energy Use - Estimated net increase in energy use.

Water And Wastewater - The IXTP would not consume water for indoor or outdoor use that is not already captured in the total kWh/year estimate.

Solid Waste - The IXTP would not produce additional trash beyond existing amounts.

Construction Off-road Equipment Mitigation - SCAQMD BMPs

Area Mitigation -

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps -

IXTP 7991 Replacement - Riverside-Salton Sea County, Winter

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0 | 5 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 10.00 | 20.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |
| tblConstructionPhase | NumDays | 2.00 | 25.00 |
| tblConstructionPhase | NumDays | 100.00 | 179.00 |
| tblConstructionPhase | NumDays | 5.00 | 10.00 |
| tblEnergyUse | LightingElect | 2.37 | 0.00 |
| tblEnergyUse | NT24E | 36.52 | 31.94 |
| tblEnergyUse | NT24NG | 48.51 | 0.00 |
| tblEnergyUse | T24E | 1.06 | 0.00 |
| tblEnergyUse | T24NG | 3.25 | 0.00 |
| tblGrading | MaterialExported | 0.00 | 500.00 |
| tblGrading | MaterialImported | 0.00 | 500.00 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblSolidWaste | SolidWasteGenerationRate | 4.23 | 0.00 |
| tblStationaryGeneratorsPumpsEF | CH4_EF | 0.07 | 0.07 |
| tblStationaryGeneratorsPumpsEF | ROG_EF | 2.2480e-003 | 2.2477e-003 |
| tblStationaryGeneratorsPumpsUse | HorsePowerValue | 0.00 | 300.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerYear | 0.00 | 168.00 |
| tblStationaryGeneratorsPumpsUse | NumberOfEquipment | 0.00 | 1.00 |
| tblTripsAndVMT | WorkerTripNumber | 2.00 | 10.00 |
| tblVehicleTrips | ST_TR | 1.68 | 0.00 |
| tblVehicleTrips | SU_TR | 1.68 | 0.00 |
| tblVehicleTrips | WD_TR | 1.68 | 0.10 |
| tblWater | IndoorWaterUseRate | 1,040,625.00 | 0.00 |

# 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 0.8684 | 8.3749 | 8.0325 | 0.0166 | 0.9563 | 0.4484 | 1.3677 | 0.4680 | 0.4125 | 0.8604 | 0.0000 | 1,631.9438 | 1,631.9438 | 0.3611 | 0.0000 | 1,637.9796 |
| **Maximum** | **0.8684** | **8.3749** | **8.0325** | **0.0166** | **0.9563** | **0.4484** | **1.3677** | **0.4680** | **0.4125** | **0.8604** | **0.0000** | **1,631.9438** | **1,631.9438** | **0.3611** | **0.0000** | **1,637.9796** |

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 0.8684 | 8.3749 | 8.0325 | 0.0166 | 0.5314 | 0.4484 | 0.9427 | 0.2380 | 0.4125 | 0.6304 | 0.0000 | 1,631.9438 | 1,631.9438 | 0.3611 | 0.0000 | 1,637.9796 |
| **Maximum** | **0.8684** | **8.3749** | **8.0325** | **0.0166** | **0.5314** | **0.4484** | **0.9427** | **0.2380** | **0.4125** | **0.6304** | **0.0000** | **1,631.9438** | **1,631.9438** | **0.3611** | **0.0000** | **1,637.9796** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **44.44** | **0.00** | **31.07** | **49.15** | **0.00** | **26.73** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.1249 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 7.3000e-004 | 6.2500e-003 | 9.1400e-003 | 4.0000e-005 | 3.4800e-003 | 3.0000e-005 | 3.5100e-003 | 9.3000e-004 | 3.0000e-005 | 9.6000e-004 | | 4.3737 | 4.3737 | 2.2000e-004 | | 4.3792 |
| Stationary | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.1256** | **6.2500e-003** | **9.6000e-003** | **4.0000e-005** | **3.4800e-003** | **3.0000e-005** | **3.5100e-003** | **9.3000e-004** | **3.0000e-005** | **9.6000e-004** | | **4.3747** | **4.3747** | **2.2000e-004** | **0.0000** | **4.3803** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.1249 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 7.3000e-004 | 6.2500e-003 | 9.1400e-003 | 4.0000e-005 | 3.4800e-003 | 3.0000e-005 | 3.5100e-003 | 9.3000e-004 | 3.0000e-005 | 9.6000e-004 | | 4.3737 | 4.3737 | 2.2000e-004 | | 4.3792 |
| Stationary | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.1256** | **6.2500e-003** | **9.6000e-003** | **4.0000e-005** | **3.4800e-003** | **3.0000e-005** | **3.5100e-003** | **9.3000e-004** | **3.0000e-005** | **9.6000e-004** | | **4.3747** | **4.3747** | **2.2000e-004** | **0.0000** | **4.3803** |

| | **ROG** | **NOx** | **CO** | **SO2** | **Fugitive PM10** | **Exhaust PM10** | **PM10 Total** | **Fugitive PM2.5** | **Exhaust PM2.5** | **PM2.5 Total** | **Bio- CO2** | **NBio-CO2** | **Total CO2** | **CH4** | **N20** | **CO2e** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/4/2021 | 1/29/2021 | 5 | 20 | |
| 2 | Site Preparation | Site Preparation | 2/1/2021 | 2/2/2021 | 5 | 2 | |
| 3 | Grading | Grading | 2/3/2021 | 3/9/2021 | 5 | 25 | |
| 4 | Building Construction | Building Construction | 3/10/2021 | 11/15/2021 | 5 | 179 | |
| 5 | Paving | Paving | 11/16/2021 | 11/29/2021 | 5 | 10 | |

**Acres of Grading (Site Preparation Phase): 1**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 4 | 10.00 | 0.00 | 13.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 125.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 10.00 | 1.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

## 3.2 Demolition - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.1436 | 0.0000 | 0.1436 | 0.0217 | 0.0000 | 0.0217 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |
| **Total** | **0.7965** | **7.2530** | **7.5691** | **0.0120** | **0.1436** | **0.4073** | **0.5510** | **0.0217** | **0.3886** | **0.4103** | | **1,147.4338** | **1,147.4338** | **0.2138** | | **1,152.7797** |

## 3.2 Demolition - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 3.3300e-003 | 0.1422 | 0.0217 | 4.8000e-004 | 0.0114 | 4.4000e-004 | 0.0118 | 3.1200e-003 | 4.2000e-004 | 3.5300e-003 | | 50.6514 | 50.6514 | 3.3000e-003 | | 50.7339 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0463 | 0.0278 | 0.2967 | 9.5000e-004 | 0.1110 | 6.5000e-004 | 0.1117 | 0.0294 | 6.0000e-004 | 0.0300 | | 94.8841 | 94.8841 | 2.1900e-003 | | 94.9389 |
| **Total** | **0.0496** | **0.1700** | **0.3184** | **1.4300e-003** | **0.1224** | **1.0900e-003** | **0.1235** | **0.0326** | **1.0200e-003** | **0.0336** | | **145.5354** | **145.5354** | **5.4900e-003** | | **145.6728** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0646 | 0.0000 | 0.0646 | 9.7800e-003 | 0.0000 | 9.7800e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | 0.0000 | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |
| **Total** | **0.7965** | **7.2530** | **7.5691** | **0.0120** | **0.0646** | **0.4073** | **0.4720** | **9.7800e-003** | **0.3886** | **0.3984** | **0.0000** | **1,147.4338** | **1,147.4338** | **0.2138** | | **1,152.7797** |

## 3.2 Demolition - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 3.3300e-003 | 0.1422 | 0.0217 | 4.8000e-004 | 0.0109 | 4.4000e-004 | 0.0114 | 3.0100e-003 | 4.2000e-004 | 3.4300e-003 | | 50.6514 | 50.6514 | 3.3000e-003 | | 50.7339 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0463 | 0.0278 | 0.2967 | 9.5000e-004 | 0.1062 | 6.5000e-004 | 0.1069 | 0.0283 | 6.0000e-004 | 0.0289 | | 94.8841 | 94.8841 | 2.1900e-003 | | 94.9389 |
| **Total** | **0.0496** | **0.1700** | **0.3184** | **1.4300e-003** | **0.1171** | **1.0900e-003** | **0.1182** | **0.0313** | **1.0200e-003** | **0.0323** | | **145.5354** | **145.5354** | **5.4900e-003** | | **145.6728** |

## 3.3 Site Preparation - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6403 | 7.8204 | 4.0274 | 9.7300e-003 | | 0.2995 | 0.2995 | | 0.2755 | 0.2755 | | 942.5842 | 942.5842 | 0.3049 | | 950.2055 |
| **Total** | **0.6403** | **7.8204** | **4.0274** | **9.7300e-003** | **0.5303** | **0.2995** | **0.8297** | **0.0573** | **0.2755** | **0.3328** | | **942.5842** | **942.5842** | **0.3049** | | **950.2055** |

## 3.3 Site Preparation - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0231 | 0.0139 | 0.1483 | 4.8000e-004 | 0.0555 | 3.3000e-004 | 0.0558 | 0.0147 | 3.0000e-004 | 0.0150 | | 47.4420 | 47.4420 | 1.1000e-003 | | 47.4695 |
| **Total** | **0.0231** | **0.0139** | **0.1483** | **4.8000e-004** | **0.0555** | **3.3000e-004** | **0.0558** | **0.0147** | **3.0000e-004** | **0.0150** | | **47.4420** | **47.4420** | **1.1000e-003** | | **47.4695** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6403 | 7.8204 | 4.0274 | 9.7300e-003 | | 0.2995 | 0.2995 | | 0.2755 | 0.2755 | 0.0000 | 942.5842 | 942.5842 | 0.3049 | | 950.2055 |
| **Total** | **0.6403** | **7.8204** | **4.0274** | **9.7300e-003** | **0.2386** | **0.2995** | **0.5381** | **0.0258** | **0.2755** | **0.3013** | **0.0000** | **942.5842** | **942.5842** | **0.3049** | | **950.2055** |

## 3.3 Site Preparation - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0231 | 0.0139 | 0.1483 | 4.8000e-004 | 0.0531 | 3.3000e-004 | 0.0534 | 0.0141 | 3.0000e-004 | 0.0144 | | 47.4420 | 47.4420 | 1.1000e-003 | | 47.4695 |
| **Total** | **0.0231** | **0.0139** | **0.1483** | **4.8000e-004** | **0.0531** | **3.3000e-004** | **0.0534** | **0.0141** | **3.0000e-004** | **0.0144** | | **47.4420** | **47.4420** | **1.1000e-003** | | **47.4695** |

## 3.4 Grading - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.7578 | 0.0000 | 0.7578 | 0.4146 | 0.0000 | 0.4146 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |
| **Total** | **0.7965** | **7.2530** | **7.5691** | **0.0120** | **0.7578** | **0.4073** | **1.1652** | **0.4146** | **0.3886** | **0.8032** | | **1,147.4338** | **1,147.4338** | **0.2138** | | **1,152.7797** |

## 3.4 Grading - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0256 | 1.0942 | 0.1667 | 3.6700e-003 | 0.0875 | 3.3600e-003 | 0.0908 | 0.0240 | 3.2100e-003 | 0.0272 | | 389.6260 | 389.6260 | 0.0254 | | 390.2609 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0463 | 0.0278 | 0.2967 | 9.5000e-004 | 0.1110 | 6.5000e-004 | 0.1117 | 0.0294 | 6.0000e-004 | 0.0300 | | 94.8841 | 94.8841 | 2.1900e-003 | | 94.9389 |
| **Total** | **0.0719** | **1.1219** | **0.4634** | **4.6200e-003** | **0.1985** | **4.0100e-003** | **0.2025** | **0.0534** | **3.8100e-003** | **0.0572** | | **484.5101** | **484.5101** | **0.0276** | | **485.1998** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.3410 | 0.0000 | 0.3410 | 0.1866 | 0.0000 | 0.1866 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | 0.0000 | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |
| **Total** | **0.7965** | **7.2530** | **7.5691** | **0.0120** | **0.3410** | **0.4073** | **0.7484** | **0.1866** | **0.3886** | **0.5752** | **0.0000** | **1,147.4338** | **1,147.4338** | **0.2138** | | **1,152.7797** |

## 3.4 Grading - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0256 | 1.0942 | 0.1667 | 3.6700e-003 | 0.0842 | 3.3600e-003 | 0.0875 | 0.0232 | 3.2100e-003 | 0.0264 | | 389.6260 | 389.6260 | 0.0254 | | 390.2609 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0463 | 0.0278 | 0.2967 | 9.5000e-004 | 0.1062 | 6.5000e-004 | 0.1069 | 0.0283 | 6.0000e-004 | 0.0289 | | 94.8841 | 94.8841 | 2.1900e-003 | | 94.9389 |
| **Total** | **0.0719** | **1.1219** | **0.4634** | **4.6200e-003** | **0.1904** | **4.0100e-003** | **0.1944** | **0.0514** | **3.8100e-003** | **0.0552** | | **484.5101** | **484.5101** | **0.0276** | | **485.1998** |

## 3.5 Building Construction - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.7750 | 7.9850 | 7.2637 | 0.0114 | | 0.4475 | 0.4475 | | 0.4117 | 0.4117 | | 1,103.2158 | 1,103.2158 | 0.3568 | | 1,112.1358 |
| **Total** | **0.7750** | **7.9850** | **7.2637** | **0.0114** | | **0.4475** | **0.4475** | | **0.4117** | **0.4117** | | **1,103.2158** | **1,103.2158** | **0.3568** | | **1,112.1358** |

## 3.5 Building Construction - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 2.3900e-003 | 0.0889 | 0.0190 | 2.3000e-004 | 5.7600e-003 | 1.7000e-004 | 5.9200e-003 | 1.6600e-003 | 1.6000e-004 | 1.8200e-003 | | 24.3463 | 24.3463 | 2.1500e-003 | | 24.4000 |
| Worker | 0.0463 | 0.0278 | 0.2967 | 9.5000e-004 | 0.1110 | 6.5000e-004 | 0.1117 | 0.0294 | 6.0000e-004 | 0.0300 | | 94.8841 | 94.8841 | 2.1900e-003 | | 94.9389 |
| **Total** | **0.0487** | **0.1167** | **0.3157** | **1.1800e-003** | **0.1168** | **8.2000e-004** | **0.1176** | **0.0311** | **7.6000e-004** | **0.0319** | | **119.2303** | **119.2303** | **4.3400e-003** | | **119.3389** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.7750 | 7.9850 | 7.2637 | 0.0114 | | 0.4475 | 0.4475 | | 0.4117 | 0.4117 | 0.0000 | 1,103.2158 | 1,103.2158 | 0.3568 | | 1,112.1358 |
| **Total** | **0.7750** | **7.9850** | **7.2637** | **0.0114** | | **0.4475** | **0.4475** | | **0.4117** | **0.4117** | **0.0000** | **1,103.2158** | **1,103.2158** | **0.3568** | | **1,112.1358** |

## 3.5 Building Construction - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 2.3900e-003 | 0.0889 | 0.0190 | 2.3000e-004 | 5.5500e-003 | 1.7000e-004 | 5.7200e-003 | 1.6100e-003 | 1.6000e-004 | 1.7700e-003 | | 24.3463 | 24.3463 | 2.1500e-003 | | 24.4000 |
| Worker | 0.0463 | 0.0278 | 0.2967 | 9.5000e-004 | 0.1062 | 6.5000e-004 | 0.1069 | 0.0283 | 6.0000e-004 | 0.0289 | | 94.8841 | 94.8841 | 2.1900e-003 | | 94.9389 |
| **Total** | **0.0487** | **0.1167** | **0.3157** | **1.1800e-003** | **0.1117** | **8.2000e-004** | **0.1126** | **0.0299** | **7.6000e-004** | **0.0306** | | **119.2303** | **119.2303** | **4.3400e-003** | | **119.3389** |

## 3.6 Paving - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.7214 | 6.7178 | 7.0899 | 0.0113 | | 0.3534 | 0.3534 | | 0.3286 | 0.3286 | | 1,035.3425 | 1,035.3425 | 0.3016 | | 1,042.8818 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.7214** | **6.7178** | **7.0899** | **0.0113** | | **0.3534** | **0.3534** | | **0.3286** | **0.3286** | | **1,035.3425** | **1,035.3425** | **0.3016** | | **1,042.8818** |

## 3.6 Paving - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0833 | 0.0500 | 0.5340 | 1.7100e-003 | 0.1998 | 1.1800e-003 | 0.2010 | 0.0530 | 1.0800e-003 | 0.0541 | | 170.7913 | 170.7913 | 3.9500e-003 | | 170.8900 |
| **Total** | **0.0833** | **0.0500** | **0.5340** | **1.7100e-003** | **0.1998** | **1.1800e-003** | **0.2010** | **0.0530** | **1.0800e-003** | **0.0541** | | **170.7913** | **170.7913** | **3.9500e-003** | | **170.8900** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.7214 | 6.7178 | 7.0899 | 0.0113 | | 0.3534 | 0.3534 | | 0.3286 | 0.3286 | 0.0000 | 1,035.3425 | 1,035.3425 | 0.3016 | | 1,042.8818 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.7214** | **6.7178** | **7.0899** | **0.0113** | | **0.3534** | **0.3534** | | **0.3286** | **0.3286** | **0.0000** | **1,035.3425** | **1,035.3425** | **0.3016** | | **1,042.8818** |

### 3.6 Paving - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0833 | 0.0500 | 0.5340 | 1.7100e-003 | 0.1911 | 1.1800e-003 | 0.1923 | 0.0509 | 1.0800e-003 | 0.0520 | | 170.7913 | 170.7913 | 3.9500e-003 | | 170.8900 |
| **Total** | **0.0833** | **0.0500** | **0.5340** | **1.7100e-003** | **0.1911** | **1.1800e-003** | **0.1923** | **0.0509** | **1.0800e-003** | **0.0520** | | **170.7913** | **170.7913** | **3.9500e-003** | | **170.8900** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 7.3000e-004 | 6.2500e-003 | 9.1400e-003 | 4.0000e-005 | 3.4800e-003 | 3.0000e-005 | 3.5100e-003 | 9.3000e-004 | 3.0000e-005 | 9.6000e-004 | | 4.3737 | 4.3737 | 2.2000e-004 | | 4.3792 |
| Unmitigated | 7.3000e-004 | 6.2500e-003 | 9.1400e-003 | 4.0000e-005 | 3.4800e-003 | 3.0000e-005 | 3.5100e-003 | 9.3000e-004 | 3.0000e-005 | 9.6000e-004 | | 4.3737 | 4.3737 | 2.2000e-004 | | 4.3792 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Refrigerated Warehouse-No Rail | 0.45 | 0.00 | 0.00 | 1,166 | 1,166 |
| Total | 0.45 | 0.00 | 0.00 | 1,166 | 1,166 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Refrigerated Warehouse-No | 13.80 | 6.20 | 6.20 | 59.00 | 0.00 | 41.00 | 92 | 5 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 0.545527 | 0.036856 | 0.186032 | 0.115338 | 0.015222 | 0.004970 | 0.017525 | 0.069528 | 0.001397 | 0.001160 | 0.004547 | 0.000932 | 0.000965 |

# 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Refrigerated Warehouse-No Rail | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.2 Energy by Land Use - NaturalGas

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Refrigerated Warehouse-No Rail | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.1249 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |
| Unmitigated | 0.1249 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0286 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0963 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.0000e-005 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |
| **Total** | **0.1249** | **0.0000** | **4.6000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **9.8000e-004** | **9.8000e-004** | **0.0000** | | **1.0500e-003** |

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0286 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0963 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.0000e-005 | 0.0000 | 4.6000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 9.8000e-004 | 9.8000e-004 | 0.0000 | | 1.0500e-003 |
| **Total** | **0.1249** | **0.0000** | **4.6000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **9.8000e-004** | **9.8000e-004** | **0.0000** | | **1.0500e-003** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|
| Emergency Generator | 1 | 0 | 168 | 300 | 0.73 | Diesel |

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 10.1 Stationary Sources

**Unmitigated/Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Type | lb/day | | | | | | | | | | lb/day | | | | | |
| Emergency Generator - Diesel (300 - 600 HP) | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 11.0 Vegetation

# IXTP 7991 - Emergency Generator Daily

**Riverside-Salton Sea County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Other Asphalt Surfaces | 0.00 | 1000sqft | 0.00 | 0.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.4 | **Precipitation Freq (Days)** | 28 |
| **Climate Zone** | 15 | | | **Operational Year** | 2022 |
| **Utility Company** | Imperial Irrigation District | | | | |
| **CO2 Intensity (lb/MWhr)** | 1270.9 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Placeholder - modeling only operational emissions from emergency genereator.

Construction Phase - Placeholder - modeling only operational emissions from emergency genereator.

Off-road Equipment - Placeholder - modeling only operational emissions from emergency genereator.

Demolition -

Trips and VMT - Placeholder - modeling only operational emissions from emergency genereator.

Area Coating -

Consumer Products -

Landscape Equipment - No lanscaping

Stationary Sources - Emergency Generators and Fire Pumps - Modeling 24 hours of generator use for inclusion in mass daily emissions.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | ReapplicationRatePercent | 10 | 0 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblStationaryGeneratorsPumpsEF | CH4_EF | 0.07 | 0.07 |
| tblStationaryGeneratorsPumpsEF | ROG_EF | 2.2480e-003 | 2.2477e-003 |
| tblStationaryGeneratorsPumpsUse | HorsePowerValue | 0.00 | 300.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerDay | 0.00 | 24.00 |
| tblStationaryGeneratorsPumpsUse | NumberOfEquipment | 0.00 | 1.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

| | **ROG** | **NOx** | **CO** | **SO2** | **Fugitive PM10** | **Exhaust PM10** | **PM10 Total** | **Fugitive PM2.5** | **Exhaust PM2.5** | **PM2.5 Total** | **Bio- CO2** | **NBio-CO2** | **Total CO2** | **CH4** | **N20** | **CO2e** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Stationary | 11.8141 | 33.0244 | 30.1275 | 0.0568 | | 1.7381 | 1.7381 | | 1.7381 | 1.7381 | | 6,044.5017 | 6,044.5017 | 0.8474 | | 6,065.6878 |
| **Total** | **11.8141** | **33.0244** | **30.1275** | **0.0568** | **0.0000** | **1.7381** | **1.7381** | **0.0000** | **1.7381** | **1.7381** | | **6,044.5017** | **6,044.5017** | **0.8474** | **0.0000** | **6,065.6878** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Stationary | 11.8141 | 33.0244 | 30.1275 | 0.0568 | | 1.7381 | 1.7381 | | 1.7381 | 1.7381 | | 6,044.5017 | 6,044.5017 | 0.8474 | | 6,065.6878 |
| **Total** | **11.8141** | **33.0244** | **30.1275** | **0.0568** | **0.0000** | **1.7381** | **1.7381** | **0.0000** | **1.7381** | **1.7381** | | **6,044.5017** | **6,044.5017** | **0.8474** | **0.0000** | **6,065.6878** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/4/2021 | 1/3/2021 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 0 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 0 | 6.00 | 97 | 0.37 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Demolition - 2021

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.2 Demolition - 2021

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Other Asphalt Surfaces | 13.80 | 6.20 | 6.20 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Asphalt Surfaces | 0.545527 | 0.036856 | 0.186032 | 0.115338 | 0.015222 | 0.004970 | 0.017525 | 0.069528 | 0.001397 | 0.001160 | 0.004547 | 0.000932 | 0.000965 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

IXTP 7991 - Emergency Generator Daily - Riverside-Salton Sea County, Summer

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|
| Emergency Generator | 1 | 24 | 0 | 300 | 0.73 | Diesel |

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 10.1 Stationary Sources

**Unmitigated/Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Type | lb/day | | | | | | | | | | lb/day | | | | | |
| Emergency Generator - Diesel (300 - 600 HP) | 11.8141 | 33.0244 | 30.1275 | 0.0568 | | 1.7381 | 1.7381 | | 1.7381 | 1.7381 | | 6,044.5017 | 6,044.5017 | 0.8474 | | 6,065.6878 |
| **Total** | **11.8141** | **33.0244** | **30.1275** | **0.0568** | | **1.7381** | **1.7381** | | **1.7381** | **1.7381** | | **6,044.5017** | **6,044.5017** | **0.8474** | | **6,065.6878** |

## 11.0 Vegetation

# IXTP 7991 - Emergency Generator Daily

**Riverside-Salton Sea County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Other Asphalt Surfaces | 0.00 | 1000sqft | 0.00 | 0.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.4 | **Precipitation Freq (Days)** | 28 |
| **Climate Zone** | 15 | | | **Operational Year** | 2022 |
| **Utility Company** | Imperial Irrigation District | | | | |
| **CO2 Intensity (lb/MWhr)** | 1270.9 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Placeholder - modeling only operational emissions from emergency genereator.

Construction Phase - Placeholder - modeling only operational emissions from emergency genereator.

Off-road Equipment - Placeholder - modeling only operational emissions from emergency genereator.

Demolition -

Trips and VMT - Placeholder - modeling only operational emissions from emergency genereator.

Area Coating -

Consumer Products -

Landscape Equipment - No lanscaping

Stationary Sources - Emergency Generators and Fire Pumps - Modeling 24 hours of generator use for inclusion in mass daily emissions.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | ReapplicationRatePercent | 10 | 0 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblStationaryGeneratorsPumpsEF | CH4_EF | 0.07 | 0.07 |
| tblStationaryGeneratorsPumpsEF | ROG_EF | 2.2480e-003 | 2.2477e-003 |
| tblStationaryGeneratorsPumpsUse | HorsePowerValue | 0.00 | 300.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerDay | 0.00 | 24.00 |
| tblStationaryGeneratorsPumpsUse | NumberOfEquipment | 0.00 | 1.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

| | **ROG** | **NOx** | **CO** | **SO2** | **Fugitive PM10** | **Exhaust PM10** | **PM10 Total** | **Fugitive PM2.5** | **Exhaust PM2.5** | **PM2.5 Total** | **Bio- CO2** | **NBio-CO2** | **Total CO2** | **CH4** | **N20** | **CO2e** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Stationary | 11.8141 | 33.0244 | 30.1275 | 0.0568 | | 1.7381 | 1.7381 | | 1.7381 | 1.7381 | | 6,044.5017 | 6,044.5017 | 0.8474 | | 6,065.6878 |
| **Total** | **11.8141** | **33.0244** | **30.1275** | **0.0568** | **0.0000** | **1.7381** | **1.7381** | **0.0000** | **1.7381** | **1.7381** | | **6,044.5017** | **6,044.5017** | **0.8474** | **0.0000** | **6,065.6878** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Stationary | 11.8141 | 33.0244 | 30.1275 | 0.0568 | | 1.7381 | 1.7381 | | 1.7381 | 1.7381 | | 6,044.5017 | 6,044.5017 | 0.8474 | | 6,065.6878 |
| **Total** | **11.8141** | **33.0244** | **30.1275** | **0.0568** | **0.0000** | **1.7381** | **1.7381** | **0.0000** | **1.7381** | **1.7381** | | **6,044.5017** | **6,044.5017** | **0.8474** | **0.0000** | **6,065.6878** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/4/2021 | 1/3/2021 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 0 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 0 | 6.00 | 97 | 0.37 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Demolition - 2021

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.2 Demolition - 2021

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Other Asphalt Surfaces | 13.80 | 6.20 | 6.20 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Asphalt Surfaces | 0.545527 | 0.036856 | 0.186032 | 0.115338 | 0.015222 | 0.004970 | 0.017525 | 0.069528 | 0.001397 | 0.001160 | 0.004547 | 0.000932 | 0.000965 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

IXTP 7991 - Emergency Generator Daily - Riverside-Salton Sea County, Winter

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|
| Emergency Generator | 1 | 24 | 0 | 300 | 0.73 | Diesel |

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 10.1 Stationary Sources

**Unmitigated/Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Type | lb/day | | | | | | | | | | lb/day | | | | | |
| Emergency Generator - Diesel (300 - 600 HP) | 11.8141 | 33.0244 | 30.1275 | 0.0568 | | 1.7381 | 1.7381 | | 1.7381 | 1.7381 | | 6,044.5017 | 6,044.5017 | 0.8474 | | 6,065.6878 |
| **Total** | **11.8141** | **33.0244** | **30.1275** | **0.0568** | | **1.7381** | **1.7381** | | **1.7381** | **1.7381** | | **6,044.5017** | **6,044.5017** | **0.8474** | | **6,065.6878** |

## 11.0 Vegetation

# APPENDIX C: BIOLOGICAL RESOURCES TECHNICAL STUDY

# Ion Exchange Treatment Plant 7991 Construction Project

## Biological Resources Technical Study

*prepared for*

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**April 2021**

RINCON CONSULTANTS, INC.
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# 1 Introduction

Rincon Consultants, Inc. (Rincon) prepared this Biological Resources Technical Study (BRTS) to document the current existing conditions and evaluate the potential for project-related impacts to biological resources during the construction of the Ion Exchange Treatment Plant (IXTP) 7991 Construction Project (project). Coachella Valley Water District (CVWD) is the project's lead agency. The project is in the community of Mecca, Riverside County, California.

## 1.1 Project Location

The project site is located in the Coachella Valley of central Riverside County within the United States Geological Survey (USGS) Mecca, California 7.5-minute topographic quadrangle. The approximate center of the project is located at latitude 33.561693° and longitude -116.068975°. The project site is located east of State Route 111 and approximately 0.5 mile south of Mecca (Figure 1). Regional land uses surrounding the project site are primarily ruderal lots and agriculture.

The project site is located within the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP/NCCP) area, but outside any CVMSHCP/NCCP Conservation Areas. The Coachella Valley Stormwater Channel and Delta CVMSHCP/NCCP Conservation Area is located approximately 0.6 mile west of the project site on the other side of State Route 111.

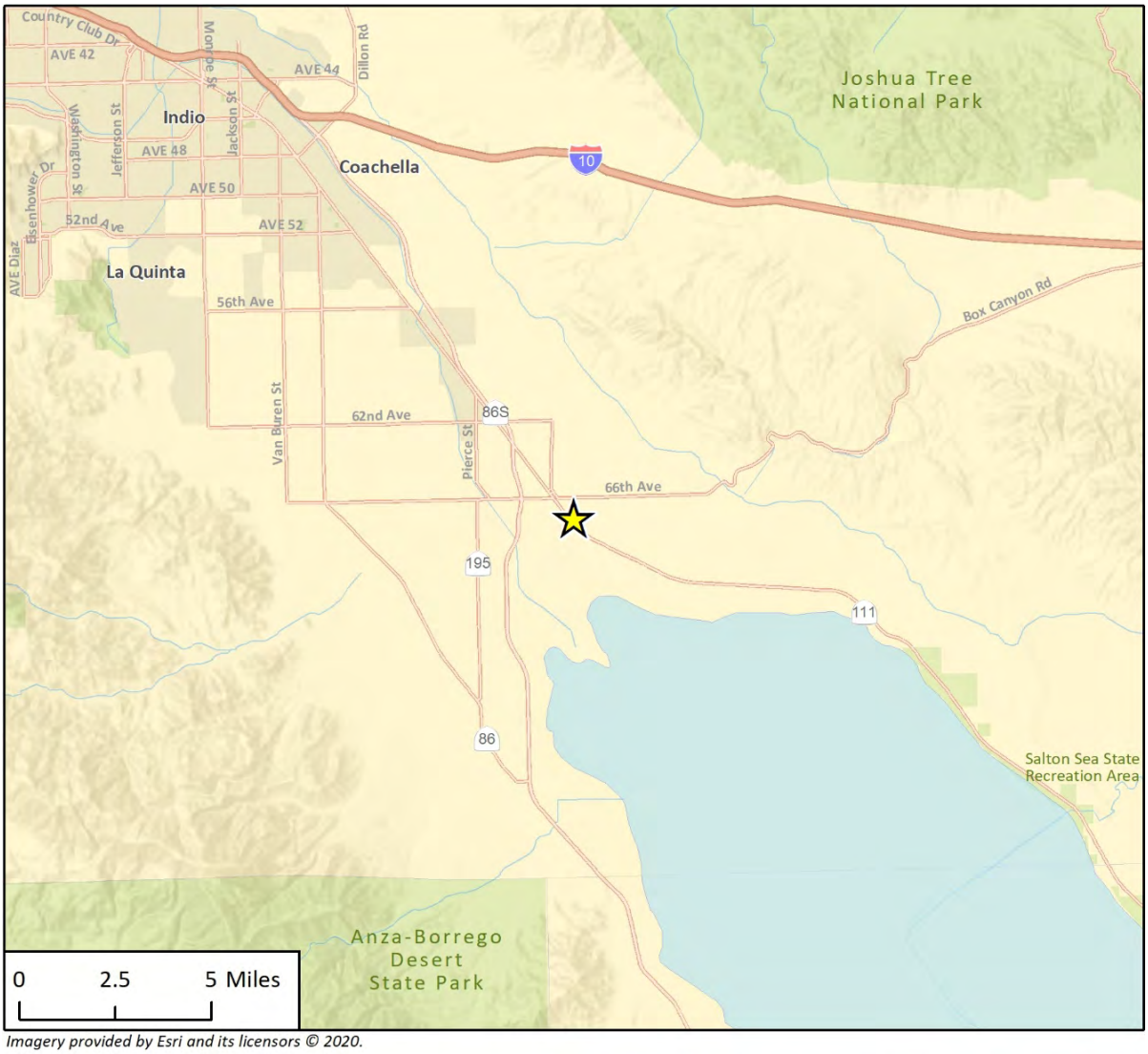
## 1.2 Project Description

The CVWD operates an IXTP at Well 7991 to treat high arsenic levels in the groundwater. Well 7991 and Well 6806 serve the southeastern portion of the CVWD service area, including the unincorporated community of Mecca and the Area 23 pressure zone via a single 18-inch pipeline. IXTP 7991 is routinely out of service and in poor condition, resulting in poor water supply reliability for Mecca and Area 23. In order to provide adequate water supply and fire flows, IXTP 7991 must be replaced. The project consists of replacing the existing IXTP 7991 with a new 1,800 gallon per minute (gpm) to 2,000 gpm adsorption treatment system, new sulfuric acid and caustic soda systems within new buildings on site, backwash pumps and piping, pre-filters, backwash tank, and demolition of the existing IXTP.

The groundwater arsenic concentration is an average of approximately 20 parts per billion (ppb), which is above the Maximum Contaminant Limit (MCL) of 10 ppb. The existing facilities on site include the well pump, a bypass and pressure reducing station, the arsenic treatment system, and a retention basin. All the components of the existing treatment system are in very poor condition and in need of replacement, except for the sodium hypochlorite chemical feed system.

Project construction would occur within the IXTP 7991 site and would involve excavation to a depth of approximately 15 feet for booster suction cans and potential activities within the adjacent roadway. Construction schedule is dependent on funding availability, but currently anticipated to begin in March 2022 and last for approximately eight months.

## Figure 1 Regional Project Location

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Project Location

N

## 1.3 Area of Potential Effects

The project Area of Potential Effects (APE) generally depicts all areas expected to be affected by the proposed project, including construction staging areas (Figure 2). For this study, the APE includes the project disturbance footprint associated with the replacement and demolition of the existing IXTP 7991. It also includes a 25-foot buffer, which includes the adjacent roadways and any staging areas, and also addresses potential indirect project effects such as noise and dust.

## Figure 2 Area of Potential Effects

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# 2 Methodology

## 2.1 Regulatory Setting

This section provides a general summary of the applicable federal and state regulations related to biological resources that could occur within the APE. Regulated or sensitive biological resources considered and evaluated in this BRTS include special-status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees.

Coachella Valley Water District is the lead agency for this project under the California Environmental Quality Act (CEQA).

### 2.1.1 Environmental Statutes

For the purposes of this BRTS, potential project-related impacts to biological resources were analyzed according to the following regulatory statutes and guiding documents:

#### Federal

- Federal Endangered Species Act (ESA)
- Federal Clean Water Act (CWA)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Coastal Zone Management Act
- Protection of Wetlands – Executive Order 11990
- Wild and Scenic Rivers Act
- Magnuson-Stevens Fishery Conservation and Management Act
- Fish and Wildlife Coordination Act
- Coastal Barriers Resources Act

With respect to the requirements of the federal Fish and Wildlife Coordination Act, it is anticipated that the United States Department of Agriculture would perform either formal or informal consultation with the U.S. Fish and Wildlife Service (USFWS), as needed, as part of its review of the project's eligibility for funding assistance. Furthermore, should the California Department of Fish and Wildlife (CDFW) provide comments as part of the CEQA process, coordination with them may occur, as appropriate, pending a determination of their status as a trustee agency under CEQA.

#### State

- California Environmental Quality Act (CEQA)
- California Endangered Species Act (CESA)
- California Fish and Game Code (CFGC)
- Porter-Cologne Water Quality Control Act

### Local

- Riverside County Ordinance No. 559 Regulating the Removal of Trees
- Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP/NCCP)

### 2.1.2 Guidelines for Determining CEQA Significance

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

a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service.

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

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

## 2.2 Database and Literature Review

Prior to conducting the biological field survey for this BRTS, Rincon reviewed a variety of literature sources to obtain baseline information about the biological resources with potential to occur within the APE and in the surrounding areas. The literature review included information from standard biological reference materials and regionally applicable regulatory guiding documents including (but not limited to) the following: Baldwin et al., 2012; and Sawyer et al., 2009. Rincon also conducted queries of several relevant scientific databases that provide information about occurrences of sensitive biological resources: the California Department of Fish and Wildlife (CDFW; formerly the California Department of Fish and Game) California Natural Diversity Data Base (CNDDB) (CDFW 2020a) and Biogeographic Information and Observation System (CDFW 2020b); the U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS 2020a) and Information, Planning, and Conservation (IPaC) System Query (Appendix E; USFWS 2020b); National Wetlands Inventory (NWI) (USFWS 2020c); the United States Department of Agriculture, Natural Resource Conservation Service (NRCS) Web Soil Survey (NRCS 2020); and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (CNPS 2020).The CNDDB query included a 5-mile radius centered on the APE; the CNPS query included the *Mecca*, California 7.5-minute topographic quadrangle, in which the APE is located, and the eight USGS quadrangles that surround it (*Indio, Thermal Canyon, Cottonwood Basin, Valerie, Mortmar, Rabbit Peak, Oasis, and Salton*).

Results of the special-status species queries were compiled and analyzed to determine which have potential to occur within the APE (Appendix A). The habitat requirements for each regionally occurring special-status species were assessed and compared to the type and quality of habitats observed in the APE during the biological field survey. Conclusions regarding which special-status species have the potential to occur were based not only on background research and literature review previously mentioned, but also on the data collected in the field during the field survey. Several regionally occurring special-status species were eliminated due to lack of suitable habitat within the APE, range in elevation, and/or geographic distribution. The results of the field survey and special-status species determined to have the potential to occur within the APE are discussed in Section 4, Sensitive Biological Resources. Special-status species determined not to have potential to occur within the APE are not discussed further in this BRTS. Definitive surveys to confirm the presence or absence of special-status species were not performed and are not included in this analysis. The findings and opinions conveyed in this report are based exclusively on the methodology described above.

## 2.3 Biological Field Survey

Rincon Senior Biologist Ryan Gilmore conducted a biological field survey for this BRTS on the morning of April 30, 2020, from 0900 to 0930, to document the existing site conditions and to evaluate the potential for presence of sensitive biological resources including special-status plant and wildlife species, sensitive plant communities, potentially jurisdictional waters of the U.S. and wetlands, and habitat for federally and state protected species. Weather conditions during the survey included an average temperature of 77 degrees Fahrenheit, with calm winds up to four miles per hour, and partially cloudy skies with good visibility. The survey area included the APE, as defined above. The survey was conducted on foot and by remote observation with 10x30 binoculars.

During the field survey an inventory of all plant and wildlife species observed was compiled, the existing vegetation communities were further classified, and the general site conditions were documented. Plant species nomenclature and taxonomy follows *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012). The vegetation classification used for this analysis is based on Sawyer et al. (2009) but it has been modified as needed to most accurately describe the existing vegetation communities in the APE. All species encountered were noted and identified to the lowest possible taxonomic level. Photographs were taken of representative areas of the APE as well as notable features (Appendix B).

The habitat requirements for each regionally occurring special-status species were assessed and compared to the type and quality of the habitats observed within the APE during the survey. The survey was conducted to make an initial determination regarding the presence or absence of terrestrial biological resources including plants, birds, and other wildlife.

# 3 Existing Conditions

This section summarizes the results of the literature and database review as well as the biological field survey effort and provides further analysis of the data collected. Discussions regarding the general environmental setting, vegetation communities present, plant and wildlife species observed, special-status species potential, and other biological resource constraints in the APE are presented below. A complete list of all the plant and wildlife species observed in the APE during the field survey is presented in Appendix B and representative photographs of the project site are provided in Appendix C.

## 3.1 Topography, Watershed, and Soils

The project is located in the unincorporated community of Mecca in central Riverside County, within the Coachella Valley (Figure 1). The Coachella Valley is a desert valley that is bounded by the Little San Bernardino Mountains and Joshua Tree National Park in the north and east, San Jacinto Mountains and Santa Rosa Mountains to the west and southwest, the Salton Sea to the southeast, and San Gorgonio Mountain to the north. The APE is generally flat with an elevation of 191 feet below mean sea level. The APE is located in the Whitewater River watershed. Surface drainage in the surrounding area would flow toward the Whitewater River located west of the APE, on the other side of State Route 111, and then to the Salton Sea located south of the APE. However, surface flows likely only occur during sufficiently substantial precipitation events. Considering that the APE is located in an agricultural area, hydrology has been greatly modified from its original state and is likely influenced by agricultural water use.

The APE contains two soil types: Indio fine sandy loam (wet) and Myoma fine sand (wet). Myoma fine sand (wet) is listed as hydric by the NRCS (NRCS 2020). These soil types are common in lowland alluvial fans and are moderately well drained. Most on-site soil appears to have been subject to varying degrees of topsoil removal through grading and excavation and is highly compacted with poor soil structure.

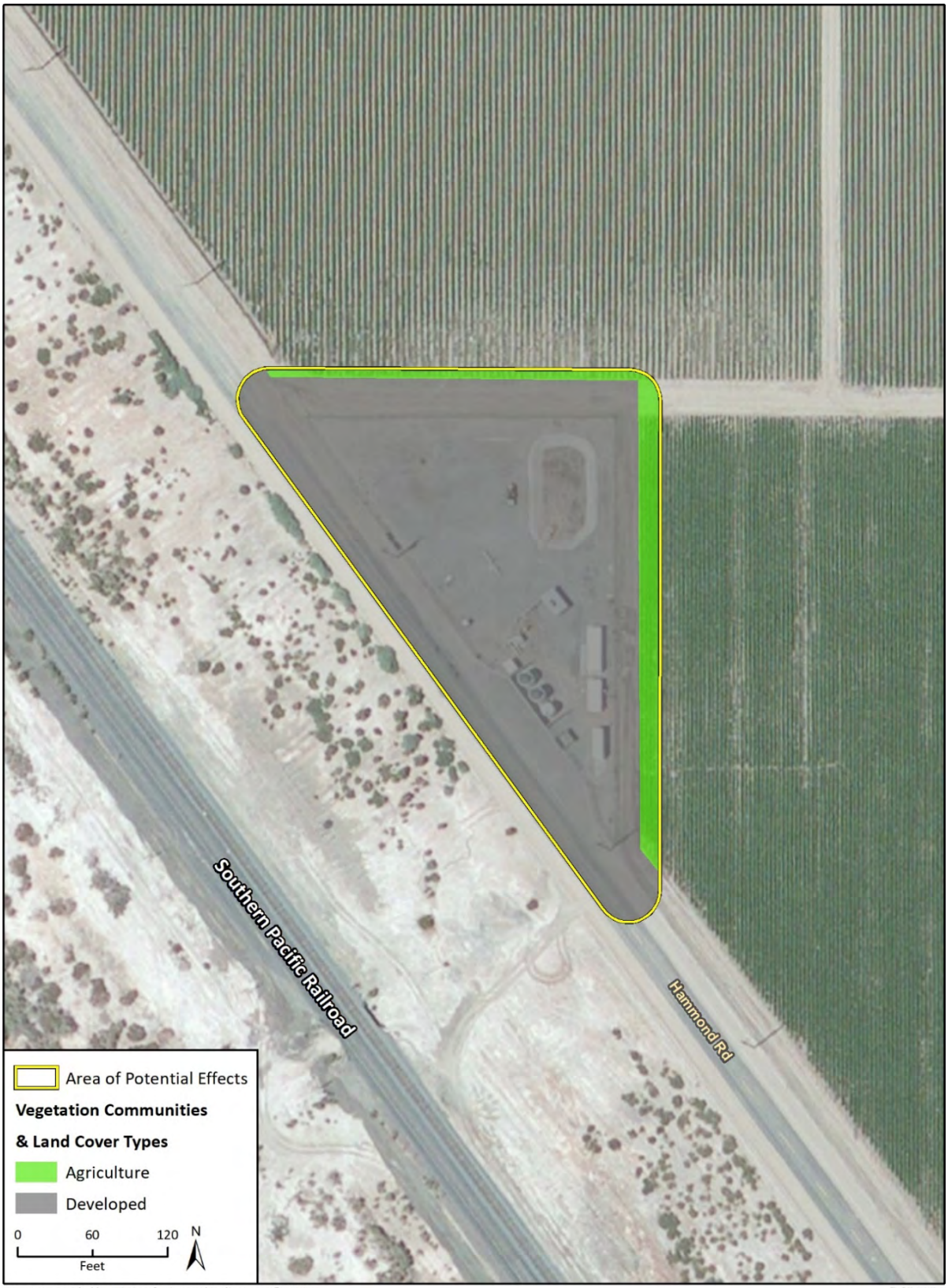
These soil units are from the USDA NRCS Soil Survey of Riverside County, California, which was conducted on a broader scale than this study and did not necessarily include on-site observations. The physical characteristics of the soil units, as described above, are general and not necessarily indicative of characteristics currently present within the APE.

## 3.2 Land Cover and Vegetation

The APE is within the lower Colorado desert, which is a subdivision of the Sonoran Desert Region (DSon) geographic subdivision of California. The DSon subdivision is a component of the larger Desert Province (D) geographic region, which occurs within the California Floristic Province (Baldwin et al. 2012). The APE is disturbed/developed and surrounded by an agricultural area adjacent to State Route 111. Two land cover / vegetation types occur within the APE and are discussed in more detail below: developed and agriculture (Figure 3).

Nine plant species were observed within the APE during the field survey (Appendix C).

**Figure 3 Land Cover and Vegetation**

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### 3.2.1 Developed

Developed land includes areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. It is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation (Oberbauer et al. 2008).

The entire fenced project site within the APE is developed consisting of structures, tanks, compacted open areas for vehicle access, and a water blow off basin. Roadways surround the fenced project site. This land cover type comprises 1.81 acres within the APE.

### 3.2.2 Agriculture

Areas mapped as agriculture include fields adjacent to the fenced project site to the north and east. This land cover type comprises 0.2 acre within the APE.

## 3.3 General Wildlife

The APE provides limited habitat for wildlife species due to its developed nature, surrounding agricultural fields, and the lack of native vegetation. Species observed during the survey included common raven (*Corvus corax*) and house finch (*Haemorhous mexicanus*) (Appendix A).

The lack of suitable buildings (with sufficient crevices and overhangs) and dense tree canopies reduces the likelihood that bats or nesting birds utilize the site. Evidence of roosting bats was not observed during the survey nor were nesting birds seen. However, they may forage in the area considering the surrounding agricultural land use that offers potential insect prey.

# 4 Sensitive Biological Resources

This section discusses sensitive biological resources observed within the APE and evaluates the potential for the APE to support other sensitive biological resources.

## 4.1 Special-Status Species

Potential to occur assessments are based on the presence or absence of suitable habitat for each special-status species reported in the scientific database queries that were conducted for the proposed project. Several scientific databases were queried, multiple sources of pertinent scientific literature were reviewed, and the technical expertise of Rincon's staff was utilized to determine the habitat requirements, ecology, and distribution of the special-status plant and wildlife species potentially affected by the proposed project. All occurrences of special-status species, sensitive vegetation communities, and USFWS-designated critical habitats that have been reported by the resource agencies within a five-mile radius of the APE were plotted on a map using geographic information system (GIS) software. As discussed in Section 2.2, an analysis was conducted to determine which of the regionally occurring special-status species have potential to occur within the APE (Appendix A). The potential for each special-status species to occur in the APE was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the APE is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the APE is unsuitable or of very poor quality. The species is not likely to be found in the APE.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the APE is unsuitable. The species has a moderate probability of being found in the APE.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the APE is highly suitable. The species has a high probability of being found in the APE.
- **Present.** Species is observed in the APE or has been recorded (e.g., CNDDB, other reports) in the APE recently (within the last 5 years).

Plant or animal taxa may be considered "special-status" due to declining populations, vulnerability to habitat change, or because they have restricted ranges. Some are listed as threatened or endangered by the USFWS, by the CDFW, or both, and are protected by the federal and state ESAs. Others have been identified as special-status species by the USFWS, the CDFW, or by private conservation organizations, including the CNPS. Unlisted species of special concern do not have formal state or federal status.

For the purpose of this report, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the ESA; those listed or candidates for listing as Rare, Threatened, or Endangered by the CDFW under the CESA or Native Plant Protection Act; those designated as Fully Protected (FP) by the CFGC; those recognized

as Species of Special Concern (SSC) and watch list (WL) species identified by the CDFW; and plants occurring on lists 1 and 2 of the CNPS California Rare Plant Rank (CRPR) system, per the following definitions:

- **Rank 1A** = Plants presumed extinct in California;
- **Rank 1B.1** = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);
- **Rank 1B.2** = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened);
- **Rank 1B.3** = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened or no current threats known);
- **Rank 2** = Rare, threatened or endangered in California, but more common elsewhere.

In addition, special-status species are ranked globally (G) and subnationally (S) 1 through 3 based on NatureServe's (2010) methodologies:

- **G1 or S1** - Critically Imperiled Globally or State-wide
- **G2 or S2** - Imperiled Globally or State-wide
- **G3 or S3** - Vulnerable to extirpation or extinction Globally or State-wide

### 4.1.1 Special-Status Plant Species

The CNDDB and CNPS query results include 11 special-status plant species tracked within 5 miles of the APE (Appendix A). Special-status plant species typically have specialized habitat requirements, including plant community types, soils, elevational ranges. No suitable habitat exists within the APE for any of these plant species and none have a moderate or high potential to occur within the APE based on a variety of factors, including the disturbance history of the APE, lack of suitable soils, inappropriate hydrologic conditions, or the absence of appropriate vegetation communities. No special-status plant species were observed during the survey.

### 4.1.2 Special-Status Wildlife Species

The CNDDB query results include 27 special-status wildlife species tracked within 5 miles of the APE. The IPaC query results include an additional three special-status wildlife species within the project region. The potential for special-status wildlife species to occur within the APE was assessed based on known distribution, habitat requirements, and existing site conditions. No special-status wildlife species were determined to have potential to occur within the APE and similarly none were detected within or immediately surrounding the APE during the reconnaissance survey. Consideration was given to the burrowing owl (*Athene cunicularia*; BUOW) which is known to inhabit desert scrub habitats in the region. There are seven CNDDB records of BUOW within 5 miles of the APE. The closest CNDDB record is located approximately 2.6 miles northwest of the APE. However, no burrows where observed within the APE and soil conditions were severely compacted. Additionally, the site is heavily maintained and kept free of debris piles commonly used by BUOW. As a result, BUOW is not expected to occur within the APE. Lands west of the APE, west of Hammond Road, and along State Route 111 could provide potential BUOW habitat, but these roads are frequently traveled with existing high sound levels. Overall, the lack of potential for special-status wildlife species occurrence is based on low habitat quality in disturbed and developed areas

of the APE, lack of native vegetation, and isolation of the APE from other suitable habitat due to surrounding developed land uses.

### 4.1.3 Nesting Birds

Destruction of bird eggs, nests, and nestlings is prohibited by federal and state law. Section 3503 of the CFGC states that it is “unlawful to take, possess or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” Section 3503.5 of the CFGC specifically protects birds of prey, and their nests and eggs against take, possession, or destruction. Section 3513 of the CFGC also incorporates restrictions imposed by the federal MBTA (which applies to native migratory bird species), stating that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the United States Secretary of the Interior under the MBTA. Active nests with eggs or young are protected in any location where they are found.

Trees or other vegetation are not present within the APE. No nesting birds were observed within existing buildings, and no significant features such as ledges or overhangs were identified during field survey that would be expected to support nesting of common species such as the common raven and house finch. The site is bordered by roads and a railroad on one side, which may generate regular noise, a probable deterrent for preferred nesting locations. No burrows were observed within the APE that could be inhabited by BUOW.

## 4.2 Sensitive Plant Communities

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in CNDDB. Similar to special-status plant and wildlife species, vegetation alliances are ranked 1 through 5 based on NatureServe's (2010) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive, though there are some exceptions.

According to the CNDDB, no sensitive plant communities are recorded within a 5-mile radius of the APE. No sensitive plant communities were observed within the APE during the survey.

## 4.3 Jurisdictional Waters and Wetlands

Areas potentially subject to United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW jurisdiction were assessed during the literature review and field visit; however, a formal jurisdictional delineation was not performed. A water blow-off basin exists within the fenced area of the APE. It is periodically filled with water which appears to drain rapidly as described by the CVWD employee in attendance at the time of the survey. Because this feature was constructed in an upland area for the purpose of water management, does not hold water for extended periods of time, and is isolated from other potentially jurisdictional waters, it is not likely subject to the jurisdiction of the USACE, RWQCB, or CDFW. No water features mapped by the NWI occur within the APE.

## 4.4 Wildlife Movement

Wildlife corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as between foraging and denning areas, or they may be regional in nature, allowing movement across the landscape. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Examples of barriers or impediments to movement include housing and other urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover. Regional and local wildlife movements are expected to be concentrated near topographic features that allow convenient passage, including roads, drainages, and ridgelines.

The CDFW BIOS (2020b) does not include any mapped essential habitat connectivity areas or natural landscape blocks mapped near the APE. The closest mapped natural landscape blocks include the Mecca Hills area approximately three miles northeast of the APE and the Santa Rosa Mountains approximately seven miles southwest of the APE. The APE is separated from these areas by existing development, agricultural areas, and transportation corridors including State Route 111. It is located within a developed and agricultural area that is subject to frequent human disturbance and is not connected to other contiguous habitats and open space areas. As a result, the APE does not occur within a wildlife movement corridor.

## 4.5 Local Policies and Ordinances

Riverside County Ordinance 559 protects oak (*Quercus*) woodlands and requires a permit for removal of any native trees on parcels greater than one-half acre in size and above 5,000 feet in elevation. There are no trees in the APE; therefore, this ordinance would not apply to activities within the APE.

## 4.6 Conservation Plans

The APE is within the CVMSHCP/NCCP area as shown (Figure 4). The CVMSHCP/NCCP is a comprehensive, multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats in the Coachella Valley region of Riverside County, and in which the CVWD is a participating entity. The overall goal of the CVMSHCP/NCCP is to maintain and enhance biological diversity and ecosystem processes within the region while allowing for future economic growth (Coachella Valley Association of Governments [CVAG] 2007).

The CVMSHCP/NCCP covers 27 sensitive plant and wildlife species (CVMSHCP/NCCP covered species) as well as 27 natural communities and includes 21 Conservation Areas. Covered species include both listed and non-listed species that are conserved by the CVMSHCP/NCCP. The overall provisions for the Plan are subdivided according to specific resource conservation goals that have been organized according to geographic areas defined as Conservation Areas. These areas are identified as Core, Essential, or Other Conserved Habitat for special-status plant, invertebrate, amphibian, reptile, bird, and mammal species, Essential Ecological Process Areas, and Biological Corridors and Linkages.

**Figure 4 CVMSHCP/NCCP Conservation Areas**

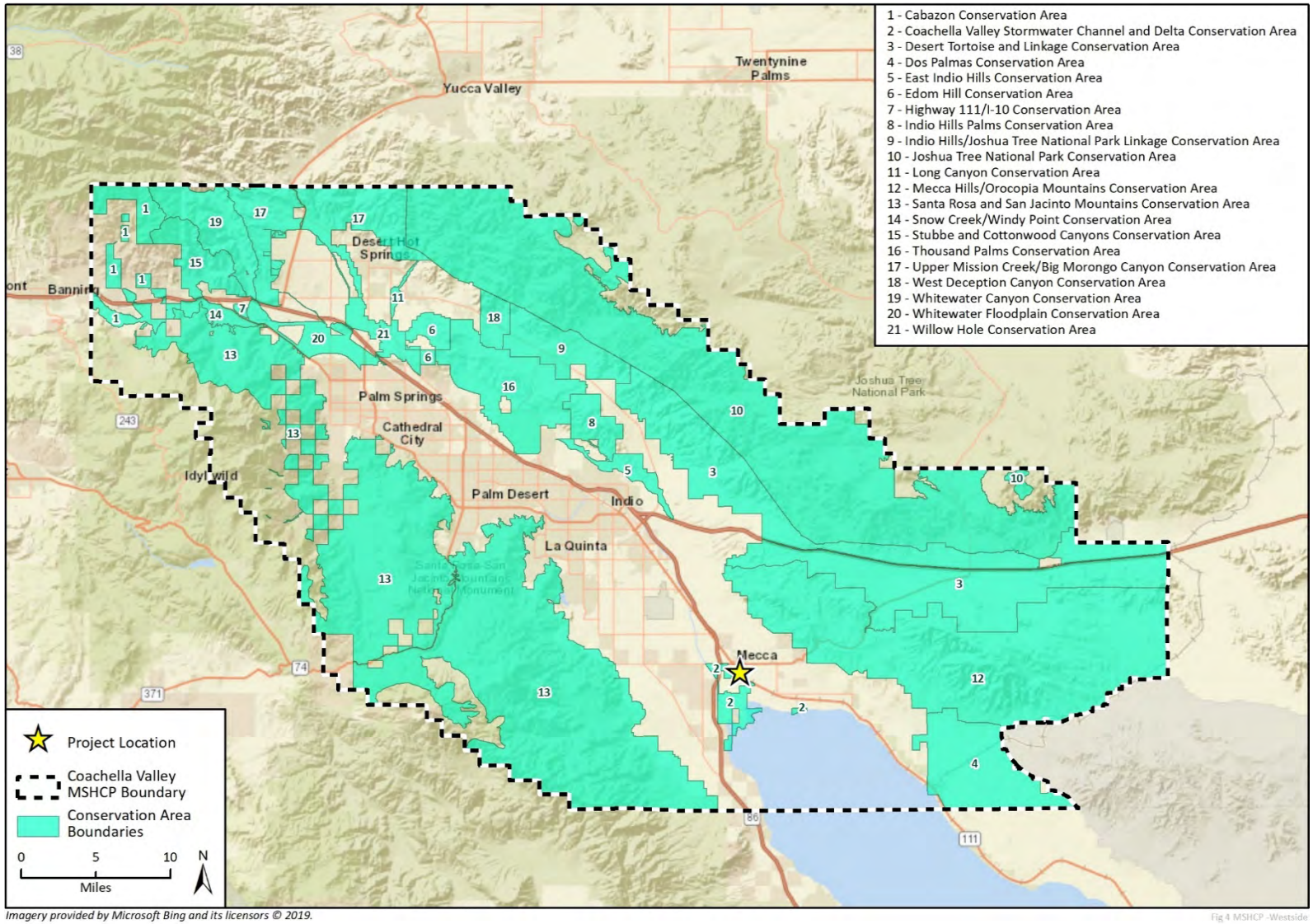


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Fig 4 MSHCP -Westside

Each Conservation Area has specific Conservation Objectives that must be satisfied. The CVMSHCP/NCCP received final approval on October 1, 2008. The approval of the CVMSHCP/NCCP and execution of the Implementing Agreement (IA) provides the signatories to the Plan coverage for take (with the exception of three species) during covered activities in concurrence with the appropriate wildlife agency. The three species not covered for take include peninsular bighorn sheep (*Ovis canadensis nelsoni*), Yuma clapper rail (*Rallus longirostris yumanensis*), and California black rail (*Laterallus jamaicensis coturniculus*). As stated in the CVMSHCP/NCCP Section 7.0, Take Authorization for Covered Activities and Term of Permit, the CDFW "acknowledges and agrees that if measures put forth in the CVMSHCP/NCCP are fully complied with, the covered activities are not likely to result in the take of these species except as provided for pursuant to CFGC Section 2081.7."

In addition, the purpose of CVMSHCP/NCCP Section 4.5 Land Use Adjacency Guidelines is to avoid or minimize indirect effects from development adjacent to or within the Conservation Areas. In this context, "adjacent" means to share a common boundary with any parcel in a designated Conservation Area. Indirect effects include noise, lighting, drainage, intrusion of people, and the introduction of nonnative plants and nonnative predators such as dogs and cats.

The APE occurs within the planning boundary of the CVMSHCP/NCCP but is not a part of any CVMSHCP/NCCP Conservation Area. The closest Conservation Area is the Coachella Valley Stormwater Channel and Delta CVMSHCP/NCCP Conservation Area, approximately 0.6 mile west of APE on the other side of State Route 111. Per the CVMSHCP/NCCP Section 4.5 Land Use Adjacency Guidelines, the APE would not be considered "adjacent" to this Conservation Area. In addition, the CVMSHCP/NCCP Section 7.1 Covered Activities Outside Conservation Areas indicates that CVMSHCP/NCCP permittee-proposed activities, and their associated potential impacts to covered species, outside of Conservation Areas would be covered by the CVMSHCP/NCCP. Potential impacts to non-covered species would not be covered.

## 4.7 Critical Habitat, Coastal Zone, Wild and Scenic Rivers, Essential Fish Habitat, and Coastal Barrier Resources

The APE is not within any federally designated critical habitat areas or within or adjacent to the Coastal Zone or any federally designated Wild and Scenic Rivers. Furthermore, the APE is not within or adjacent any Essential Fish Habitat or within lands covered by the Coastal Barrier Resources System.

# 5 Impact Analysis and Mitigation Measures

This section discusses the possible adverse impacts to sensitive biological resources that may occur from implementation of the proposed project and suggests appropriate mitigation measures that would reduce those impacts to less than significant levels. The criteria used to evaluate potential project-related impacts to biological resources are presented in Section 2.1.2.

## 5.1 Special-Status Species

### 5.1.1 Special-Status Plant Species

As discussed in Section 4.1, the APE does not provide suitable habitat for special-status plant species given the disturbance history of the APE, lack of suitable soils, inappropriate hydrologic conditions, or absence of appropriate vegetation communities. No special-status plant species have a moderate or high potential to occur within the APE. As a result, project impacts to special-status plant species are not expected and no mitigation measures are recommended.

### 5.1.2 Special-Status Wildlife Species

As discussed in Section 4.1, the APE does not provide suitable habitat for special-status wildlife species given their known distributions and habitat requirements relative to existing site conditions that include low habitat quality in disturbed and developed areas of the APE, lack of native vegetation, and the isolation from other suitable habitat due to the surrounding developed land. No special-status wildlife species have a moderate or high potential to occur within the APE. As a result, project impacts to special-status wildlife species are not expected and no mitigation measures are recommended.

### 5.1.3 Nesting Birds

Active nests with eggs or young in them are protected under the CFGC Section 3503 and the MBTA in any location where they are found. If initial ground disturbance is required during the nesting bird season nesting could be disrupted (e.g., injury, mortality, or disruption of normal adult behaviors resulting in the abandonment or harm to eggs and nestlings). As discussed in Section 4.1, there are no trees or other vegetation within the APE; nor do the existing buildings have prominent features such as ledges or overhangs that could support nesting by common species such as the common raven and house finch. Based on a lack of suitable habitat and observations of nesting birds during the field survey, no impact to nesting birds is anticipated; therefore no mitigation is recommended.

## 5.2 Sensitive Vegetation Communities

No sensitive vegetation communities were documented within or adjacent to the APE. Furthermore, project impacts are limited to previously developed areas with high human activity. Therefore, the proposed project does not have the potential to result in direct or indirect impacts to sensitive vegetation communities. Due to the absence of potential impacts, no mitigation measures are recommended.

## 5.3 Jurisdictional Waters and Wetlands

As discussed in Section 4.3, the APE does not contain any features potentially subject to the jurisdiction of USACE, RWQCB, or CDFW. The proposed project does not have the potential to result in direct or indirect impacts to jurisdictional areas, wetlands, other waters, or riparian habitats. As a result, no mitigation measures are recommended.

## 5.4 Wildlife Movement

Wildlife movement and habitat fragmentation are important issues in assessing impacts to wildlife. Habitat fragmentation occurs when a proposed action results in a single, unified habitat area being divided into two or more areas in such a way that the division isolates the two new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or from one habitat type to another, as in the fragmentation of habitats within and around “checkerboard” residential development. Habitat fragmentation also can occur when a portion of one or more habitats is converted into another habitat, as when annual burning converts scrub habitats to grassland habitats.

The proposed project footprint is located within a previously developed and routinely managed area that offers little to no value to wildlife movement. The proposed project is not anticipated to have an incremental effect on localized and urban adapted wildlife movement or create habitat fragmentation in the region, nor is it anticipated to have significant impact on regional wildlife movement. Direct impacts to wildlife movement as a result of project implementation would be less than significant. No additional lighting is proposed, and no nocturnal noise generating activities are proposed. Therefore, indirect wildlife movement impacts would be less than significant and no mitigation measures are recommended.

## 5.5 Local Policies and Ordinances

The proposed project is not expected to conflict with any local policies or ordinances. In addition, no protected trees are proposed for removal.

## 5.6 Adopted or Approved Plans

As discussed in Section 4.6, the CVWD participates in the CVMSHCP/NCCP and the proposed project is within the CVMSHCP/NCCP plan area, but not within any specific CVMSHCP/NCCP Conservation Area. The closest Conservation Area is the Coachella Valley Stormwater Channel and Delta CVMSHCP/NCCP Conservation Area, approximately 0.6 mile west of the APE on the other side of State Route 111. The proposed project would avoid direct impacts to CVMSCHCP Conservation Areas and will not conflict with the CVMSHCP/NCCP Conservation Objectives. The project will comply with CVMSHCP/NCCP Section 4.5 Land Use Adjacency Guidelines to avoid and minimize indirect effects (CVAG 2007).

## 5.7 Critical Habitat, Coastal Zone, Wild and Scenic Rivers, Essential Fish Habitat, and Coastal Barrier Resources

The APE is not within any federally designated critical habitat areas or within or adjacent to the Coastal Zone, Coastal Barrier Resources System, or any federally designated Wild and Scenic Rivers. Therefore, no impacts would occur and no mitigation measures are recommended.

# 6 Limitations, Assumptions, and User Reliance

This BRTS has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. Botanical field surveys for the presence or absence of certain taxa were not conducted as part of this assessment. The general field survey effort was limited by the environmental conditions present at the time of the survey. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the APE. Our botanical and biological field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from review of specified database and literature sources and one site visit. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon considers the data sources reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Furthermore, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

# 7 References

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## 7.2 List of Preparers

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# Appendix A

Regionally Occurring Special-Status Species

## Regionally Occurring Special-Status Species

| Scientific Name Common Name | Status | Habitat Requirements | Potential to Occur in Project Area | Habitat Suitability/ Observations |
|---|---|---|---|---|
| **Plants and Lichens** | | | | |
| *Abronia villosa* var. *aurita* chaparral sand-verbena | None/None G5T2?/S2 1B.1 | Annual herb. Blooms Jan-Sept. Occurs in chaparral, coastal scrub. Sandy areas of the South Coast and Sonoran Desert Floristic Provinces. 80-1600m (260-5250ft). | **Not Expected** | No suitable habitat (chaparral, coastal scrub, desert dunes) present. |
| *Ambrosia monogyra* singlewhorl burrobrush | None/None G5/S2 2B.2 | Chaparral, Sonoran desert scrub. sandy. 10 - 500 m. perennial shrub. Blooms Aug-Nov | **Not Expected** | No suitable habitat (chaparral, coastal scrub, desert dunes) present. |
| *Astragalus lentiginosus* var. *coachellae* Coachella Valley milk-vetch | FE/None G5T1/S1 1B.2 | Desert dunes, Sonoran desert scrub (sandy). Sandy flats, washes, outwash fans, sometimes on dunes. 40 - 655 m. annual/perennial herb. Blooms Feb-May | **Not Expected** | No suitable habitat present (desert dunes, desert scrub). |
| *Astragalus sabulonum* gravel milk-vetch | None/None G4G5/S2 2B.2 | Desert dunes, Mojavean desert scrub, Sonoran desert scrub. Usually sandy, sometimes gravelly. Flats, washes, and roadsides. -60 - 930 m. annual/perennial herb. Blooms Feb-Jun | **Low Potential** | Suitable habitat (roadsides) present but are heavily disturbed. |
| *Chylismia arenaria* sand evening-primrose | None/None G4?/S2S3 2B.2 | Sonoran desert scrub (sandy or rocky). -70 - 915 m. annual/perennial herb. Blooms Nov-May | **Not Expected** | No suitable habitat (desert scrub) present. |
| *Ditaxis claryana* glandular ditaxis | None/None G3G4/S2 2B.2 | Mojavean desert scrub, Sonoran desert scrub. sandy. 0 - 465 m. perennial herb. Blooms Oct, Dec, Jan, Feb, Mar | **Not Expected** | No suitable habitat (desert scrub) present. |
| *Nemacaulis denudata* var. *gracilis* slender cottonheads | None/None G3G4T3?/S 2 2B.2 | Coastal dunes, Desert dunes, Sonoran desert scrub. -50 - 400 m. annual herb. Blooms (Mar)Apr-May | **Not Expected** | No suitable habitat (coastal dunes, desert dunes, desert scrub) present. |
| *Petalonyx linearis* narrow-leaf sandpaper-plant | None/None G4/S3? 2B.3 | Mojavean desert scrub, Sonoran desert scrub. Sandy or rocky canyons. -25 - 1115 m. perennial shrub. Blooms (Jan-Feb) Mar-May (Jun-Dec) | **Not Expected** | No suitable habitat (desert scrub) present. |

| Scientific Name Common Name | Status | Habitat Requirements | Potential to Occur in Project Area | Habitat Suitability/ Observations |
|---|---|---|---|---|
| *Salvia greatae* Orocopia sage | None/None G2G3/S2S3 1B.3 | Mojavean desert scrub, Sonoran desert scrub. -40 - 825 m. perennial evergreen shrub. Blooms Mar-Apr | **Not Expected** | No suitable habitat (desert scrub) present. |
| *Wislizenia refracta* ssp. *palmeri* Palmer's jackass clover | None/None G5T3T5/S1 2B.2 | Chenopod scrub, Desert dunes, Sonoran desert scrub, Sonoran thorn woodland. 0 - 300 m. perennial deciduous shrub. Blooms Jan-Dec | **Not Expected** | No suitable habitat (chenopod scrub, desert dunes, desert scrub, thorn woodland) present. |
| *Xylorhiza cognata* Mecca-aster | None/None G2/S2 1B.2 | Sonoran desert scrub. Steep canyon slopes, in sandstone and clay. 20 - 400 m. perennial herb. Blooms Jan-Jun | **Not Expected** | No suitable habitat (desert scrub, canyon slopes) present. |
| **Invertebrates** | | | | |
| *Oliarces clara* cheeseweed owlfly (cheeseweed moth lacewing) | None/None G1G3/S2 | Inhabits the lower Colorado River drainage. Found under rocks or in flight over streams. Larrea tridentata is the suspected larval host. | **Not Expected** | No suitable aquatic habitat present on or adjacent to the APE. |
| **Fish** | | | | |
| *Cyprinodon macularius* desert pupfish | FE/SE G1/S1 | Desert ponds, springs, marshes and streams in Southern California. Can live in salinities from freshwater to 68 ppt; can withstand temps from 9 - 45 C and dissolved oxygen levels down to 0.1 ppm. | **Not Expected** | No suitable aquatic habitat present on or adjacent to the APE. |
| *Xyrauchen texanus* razorback sucker | FE/SE G1/S1S2 FP | Found in the Colorado River bordering California. Adapted for swimming in swift currents but also need quiet waters. Spawn in areas of sand/gravel/rocks in shallow water. | **Not Expected** | No suitable aquatic habitat present on or adjacent to the APE. |
| **Amphibians** | | | | |
| *Scaphiopus couchii* Couch's spadefoot | None/None G5/S2 SSC | Temporary desert rainpools that last at least 7 days, with water temps > 15 C, and with subterranean refuge sites close by. An insect food base, especially termites, must be available. | **Not Expected** | No suitable aquatic habitat present on or adjacent to the APE. |

| Scientific Name Common Name | Status | Habitat Requirements | Potential to Occur in Project Area | Habitat Suitability/ Observations |
|---|---|---|---|---|
| **Reptiles** | | | | |
| *Gopherus agassizii* desert tortoise | FT/ST G3/S2S3 | Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred. | **Not Expected** | Suitable habitat (desert scrub, desert wash, Joshua tree, creosote bush) are not present. |
| *Phrynosoma mcallii* flat-tailed horned lizard | None/None G3/S2 SSC | Restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial counties. Critical habitat element is fine sand, into which lizards burrow to avoid temperature extremes; requires vegetative cover and ants. | **Not Expected** | Species is highly dependent on sand dunes, which are absent from the APE. |
| *Uma inornata* Coachella Valley fringe-toed lizard | FT/SE G1Q/S1 | Limited to sandy areas in the Coachella Valley, Riverside County. Requires fine, loose, windblown sand (for burrowing), interspersed with hardpan and widely-spaced desert shrubs. | **Not Expected** | Species is highly dependent on sand dunes, which are absent from the APE. |
| **Birds** | | | | |
| *Ardea alba* great egret | None/None G5/S4 | Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes. | **Not Expected** | Elements of suitable habitat required for nesting (large trees, marshes, tide-flats) are not present. |
| *Ardea herodias* great blue heron | None/None G5/S4 | Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows. | **Not Expected** | Elements of suitable habitat required for nesting (tall trees, cliffsides, marshes) are not present. |

| Scientific Name Common Name | Status | Habitat Requirements | Potential to Occur in Project Area | Habitat Suitability/ Observations |
|---|---|---|---|---|
| *Athene cunicularia* burrowing owl | None/None G4/S3 SSC | Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. | **Not Expected** | While there are unpaved portions of the APE, suitable habitat is not present. Small mammal burrows were not observed in or adjacent to the APE. Additionally, soil conditions were severely compacted. The APE is regularly maintained and kept free of debris piles commonly used by the species. The nearest CNDDB observation is located approximately 2.6 miles northwest of the APE. |
| *Egretta thula* snowy egret | None/None G5/S4 | Colonial nester, with nest sites situated in protected beds of dense tules. Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes. | **Not Expected** | Elements of suitable habitat required for nesting (dense tules, marshes, wet meadows) are not present. |
| *Empidonax traillii extimus* southwestern willow flycatcher | FE/SE G5T2/S1 | Riparian woodlands in southern California. | **Not Expected** | Required riparian woodland habitat is not present. |
| *Falco mexicanus* prairie falcon | None/None G5/S4 WL | Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores. | **Not Expected** | Elements of suitable habitat required for breeding and foraging (cliffs, marshlands) are not present. |
| *Gelochelidon nilotica* gull-billed tern | None/None G5/S1 SSC | Only known breeding colonies at San Diego Bay and the Salton Sea. Nests on low, sandy islets. Known to feed on fishes at mouth of Colorado River and on grasshoppers in alfalfa fields. | **Not Expected** | Elements of suitable habitat required for breeding (sandy islets) are not present. |
| *Icteria virens* yellow-breasted chat | None/None G5/S3 SSC | Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground. | **Not Expected** | Elements of suitable habitat required for nesting (dense riparian thickets) are not present. |

| Scientific Name Common Name | Status | Habitat Requirements | Potential to Occur in Project Area | Habitat Suitability/ Observations |
|---|---|---|---|---|
| *Nycticorax nycticorax* black-crowned night heron | None/None G5/S4 | Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots. | **Not Expected** | Elements of suitable habitat required for breeding (trees, marshy spots) are not present. |
| *Plegadis chihi* white-faced ibis | None/None G5/S3S4 WL | Shallow freshwater marsh. Dense tule thickets for nesting, interspersed with areas of shallow water for foraging. | **Not Expected** | Elements of suitable habitat required for breeding (dense tule thickets and areas of shallow water) are not present. |
| *Polioptila melanura* black-tailed gnatcatcher | None/None G5/S3S4 WL | Primarily inhabits wooded desert wash habitats; also occurs in desert scrub habitat, especially in winter. Nests in desert washes containing mesquite, palo verde, ironwood, acacia; absent from areas where salt cedar introduced. | **Not Expected** | Elements of suitable habitat required for breeding (wooded desert washes, desert scrub habitat) are not present. |
| *Rallus obsoletus yumanensis* Yuma Ridgway's rail | FE/ST G5T3/S1S2 FP | Nests in freshwater marshes along the Colorado River and along the south and east ends of the Salton Sea. Prefers stands of cattails and tules dissected by narrow channels of flowing water; principle food is crayfish. | **Not Expected** | Elements of suitable habitat required for breeding (freshwater marshes) are not present. |
| *Rynchops niger* black skimmer | None/None G5/S2 SSC | Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs. | **Not Expected** | Elements of suitable habitat required for breeding (gravel bars, low islets, sandy beaches) are not present. |
| *Toxostoma crissale* Crissal thrasher | None/None G5/S3 SSC | Resident of southeastern deserts in desert riparian and desert wash habitats. Nests in dense vegetation along streams/washes; mesquite, screwbean mesquite, ironwood, catclaw, acacia, arrowweed, willow. | **Not Expected** | Elements of suitable habitat required for breeding (desert riparian and desert wash habitats) are not present. |

| Scientific Name Common Name | Status | Habitat Requirements | Potential to Occur in Project Area | Habitat Suitability/ Observations |
|---|---|---|---|---|
| *Toxostoma lecontei* Le Conte's thrasher | None/None G4/S3 SSC | Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground. | **Not Expected** | Elements of suitable habitat required for breeding (desert wash, desert scrub, densely branched cactus) are not present. |
| *Vireo bellii pusillus* least Bell's vireo | FE/SE G5T2/S2 SSC | Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite. | **Not Expected** | Required habitat (riparian, mesquite, water source) are not present. |
| **Mammals** | | | | |
| *Chaetodipus fallax pallidus* pallid San Diego pocket mouse | None/None G5T34/S3S 4 SSC | Occurs in desert and arid coastal border areas in eastern San Diego, Riverside, and San Bernardino Counties. Habitats include desert wash, desert scrub, desert succulent scrub, and pinyon-juniper. Prefers sandy soils, usually with rocks or coarse gravel. | **Not Expected** | Required habitat (desert wash, desert scrub, pinyon-juniper) not present in the APE. |
| *Corynorhinus townsendii* Townsend's big-eared bat | None/None G3G4/S2 SSC | Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls and ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance. | **Not Expected** | Required habitat and roosting sites (coniferous or deciduous forest, caves, bridges) not present in the APE. |

| Scientific Name Common Name | Status | Habitat Requirements | Potential to Occur in Project Area | Habitat Suitability/ Observations |
|---|---|---|---|---|
| *Euderma maculatum* spotted bat | None/None G4/S3 SSC | Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Typically forages in open terrain; over water and along washes. Feeds almost entirely on moths. Roosts in rock crevices in cliffs or caves. Occasionally roosts in buildings. | **Not Expected** | Required foraging and roosting habitats (water, rock crevices, grasslands) not present in the APE. |
| *Eumops perotis californicus* western mastiff bat | None/None G5T4/S3S4 SSC | Occurs in open, semi-arid to arid habitats, including coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces and caves, and buildings. Roosts typically occur high above ground. | **Not Expected** | Required habitat (coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral) not present in the APE. |
| *Neotoma albigula venusta* Colorado Valley woodrat | None/None G5T3T4/S1 S2 | Low-lying desert areas in southeastern California. Closely associated with beaver-tail cactus & mesquite. Intolerant of cold temps. Eats mainly succulent plants. Distribution influenced by abundance of nest building material | **Not Expected** | Required nest building material and food source (succulents and mesquite) not present in the APE. |
| *Taxidea taxus* American badger | None/None G5/S3 SSC | Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows. | **Not Expected** | Required habitat and soil types (shrub, forest, and herbaceous habitats with friable soils) not present in the APE. |
| *Xerospermophilus tereticaudus chlorus* Palm Springs round-tailed ground squirrel | None/None G5T2Q/S2 SSC | Restricted to the Coachella Valley. Prefers desert succulent scrub, desert wash, desert scrub, alkali scrub, and levees. Prefers open, flat, grassy areas in fine-textured, sandy soil. Density correlated with winter rainfall. | **Not Expected** | Required habitat (desert succulent scrub, desert wash, alkali scrub, grassy areas) not present in the APE. |

| Scientific Name Common Name | Status | Habitat Requirements | Potential to Occur in Project Area | Habitat Suitability/ Observations |
|---|---|---|---|---|

Regional Vicinity refers to within a 5-mile radius of site.

**Status (Federal/State)**

FE = Federal Endangered
FT = Federal Threatened
SE = State Endangered
ST = State Threatened
SSC = CDFW Species of Special Concern
FP = CDFW Fully Protected
WL = CDFW Watch List

**CRPR (CNPS California Rare Plant Rank)**

1B = Rare, Threatened, or Endangered in California and elsewhere
2B= Rare, Threatened, or Endangered in California, but more common elsewhere

**CRPR Threat Code Extension**

.1 = Seriously endangered in California (>80% of occurrences threatened/ high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% of occurrences threatened/ moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/ low degree and immediacy of threat)

**Other Statuses**

G1 or S1 Critically Imperiled Globally or Subnationally (state)
G2 or S2 Imperiled Globally or Subnationally (state)
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
G4/5 or S4/5 Apparently secure, common and abundant
GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

**Additional notations may be provided as follows**

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
Q – Questionable taxonomy that may reduce conservation priority
? – Inexact numeric rank

# Appendix B

Plant and Wildlife Species Observed in the APE

## Plant and Wildlife Species Observed in the APE on April 30, 2020

| Scientific Name | Common Name | Status | Origin |
|---|---|---|---|
| **Plants** | | | |
| *Ambrosia salsola* | cheesebush | – | Native |
| *Atriplex lentiformis* | big saltbush | – | Native |
| *Erodium cicutarium* | red-stemmed filaree | Cal-IPC Limited | Non-native |
| *Lactuca serriola* | prickly lettuce | – | Non-native |
| *Polypogon monspeliensis* | annual beard grass | Cal-IPC Limited | Non-native |
| *Salsola tragus* | Russian thistle | Cal-IPC Limited | Non-native |
| *Schismus barbatus* | schismus | Cal-IPC Limited | Non-native |
| *Sonchus oleraceus* | sowthistle | – | Non-native |
| *Tamarix* sp. | tamarisk | Cal-IPC High | Non-native |
| **Wildlife** | | | |
| **Birds** | | | |
| *Corvus brachyrhynchos* | common raven | – | Native |
| *Haemorhous mexicanus* | house finch | – | Native |

Codes: California Invasive Plant Council (Cal-IPC) rankings of Limited, Moderate, and High indicate the invasiveness of certain non-native plant species in California.

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# Appendix C

Representative Photographs of the APE – April 30, 2020

**Photograph 1.** View looking northeast at the water blow-off basin.

**Photograph 2.** View looking into the water blow-off basin.

**Photograph 3.** View looking north along the west side of the project site.

**Photograph 4.** View looking east within the center portion of the project site.

# Appendix D

Resumes

# Ryan Gilmore, MURP

## Senior Biologist/Urban Forester/Project Manager

Ryan Gilmore serves as a Senior Biologist/Urban Forester/Project Manager and ISA Certified Arborist under Rincon's Biological Services group. He has 12 years of professional consulting experience in the environmental field including work throughout California. His responsibilities include field surveys for habitat evaluation, nesting bird surveys, burrowing owl surveys, bighorn sheep surveys, resource constraints analysis, construction and mitigation monitoring, habitat restoration and success monitoring, general biological surveys, and the preparation of biological reports for compliance with both NEPA and CEQA. Additionally, he has performed a multitude of tasks in the field of forestry. These projects include assessment and inventory of native woodlands, managing and monitoring the relocation and preservation of trees on development sites, urban tree health assessments (including tree decay studies), global positioning system (GPS) mapping, construction monitoring, data analysis, hazardous tree assessments, invasive pests studies (GSOB & PSHB), and preparation of various arboricultural reports (including urban forestry management plans, street tree management plans, and native tree restoration plans). Additionally, has provided on-call arborist services for multiple Southern California cities and large land managers.

## EDUCATION

M.U.R.P., Urban and Regional Planning, emphasis in Environmental, California State Polytechnic University, Pomona, 2010

B.A., Anthropology, emphasis in Archaeology, University of California, Santa Cruz, 2000

## CERTIFICATIONS + QUALIFICATIONS

International Society of Arboriculture (ISA) Certified Arborist & Municipal Specialist (WE-9009AM)

ISA Tree Risk Assessment Qualification, 2017

American Society of Consulting Arborists, Trees and Plants Appraisal Qualification, 2019

## TRAINING

ISA Tree Appraisal Workshop

Urban and Wildland Forests: Tree Pests and Diseases Workshop

Hour ACOE Wetland Delineation Training Program

Goldspotted Oak Borer Workshop

Stephen's Kangaroo rat field training

Desert Tortoise Surveying, Monitoring, and Handling Techniques Workshop

## PROJECT EXPERIENCE

### Botanical Survey Experience

- TRTP Project, Southern California Edison, Riverside County, Los Angeles, and Kern County, California – Conducted pre-construction botanical surveys, tree inventory, mitigation assessments, and habitat assessments along 175-mile corridor.
- Newhall Ranch, Los Angeles County – Conducted rare plant surveys and San Fernando spineflower mapping.
- Caltrans, Districts 7 and 8, Los Angeles County and San Bernardino County, California – Conducted rare plant focused botanical surveys and vegetation mapping.
- Various Projects, Verizon, San Bernardino County, California – Conducted rare plant focused botanical surveys and vegetation mapping
- Big Tujunga Wash Mitigation Bank, Los Angeles County Department of Public Works, Los Angeles County, California – Conducted restoration monitoring and annual reporting.
- Eagle Canyon and Debris Basin Habitat Mitigation Project, Riverside Flood Control and Water Conservation District, Riverside County, California – Conducted focused habitat restoration success monitoring, water quality testing, and preconstruction surveys for bighorn sheep and burrowing owl.
- Various Projects and Clients, Throughout Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, and Ventura counties - Performed large- and small-scale evaluation of protected trees Provided GIS-based tree mapping and analysis of potential tree impacts from construction. Compiled all fieldwork data and analysis into technical reports.

## Wildlife Survey Experience

- Various Projects, Caltrans, District 7, Los Angeles County, California – Conducted bighorn sheep surveys and monitoring in the San Gabriel Mountains.
- Soitec Solar Project, San Bernardino County, California – Conducted bird mortality studies.
- Sunrise Powerlink, San Diego Gas & Electric (SDG&E), San Diego County, California – Conducted protocol gold-spotted oak borer surveys within the Sunrise Powerlink mitigation site project boundaries. Developed pest management plan and monitoring for success.
- Vista Chino Road Improvement Project, City of Palm Springs, California – Conducted focused burrowing owl and Palm Springs round-tailed ground squirrel surveys.
- ISHB Monitoring and Extent Surveys Project, Orange County Transit Authority, Orange County, California – Conducted focused ISHB extent surveys, trapping and monitoring program, and management plan.
- ISHB Monitoring and Extent Surveys Project, Yucaipa Water District, City of Yucaipa, California – Conducted focused ISHB extent surveys, trapping and monitoring program, and management plan.
- Pre-Construction Burrowing Owl Survey for the Nuevo Bridge Widening and Road Improvements Project, City of Perris – Conducted burrowing owl surveys.
- Castaic Conduit Project, Santa Clara Water District, City of Santa Clarita - Least Bell's Vireo Surveys.
- Honby Pipeline Project, Santa Clarita Valley Water District, City of Santa Clarita – Least Bell's Vireo Surveys.

## Biological Technical Reports

- Various Protected Tree Inventories, Southern California Gas, Los Angeles County, California – Prepared various Protect Tree Reports
- Lakeview Plaza Project, Lakeview Centre, LLC, City of Lake Elsinore, California – Prepared Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis/Habitat Assessment
- Limonite Gap Closure Project, City of Eastvale California –Prepared Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis/Habitat Assessment
- Anza Electric Broadband Line Project, Riverside County, California – Prepared Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis/Habitat Assessment and Biological Resource Assessment
- Morgan Park Phase Two Project, City of Perris, California – Prepared Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis/Habitat Assessment

# Appendix E

IPaC Query Results

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
http://www.fws.gov/carlsbad/


In Reply Refer To: January 13, 2021
Consultation Code: 08ECAR00-2021-SLI-0489
Event Code: 08ECAR00-2021-E-01082
Project Name: CVWD IXTP 7991

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

# Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Carlsbad Fish And Wildlife Office**
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

## Project Summary

Consultation Code: 08ECAR00-2021-SLI-0489
Event Code: 08ECAR00-2021-E-01082
Project Name: CVWD IXTP 7991
Project Type: WATER SUPPLY / DELIVERY
Project Description: The CVWD operates an IXTP at Well 7991 to treat high arsenic levels in the groundwater. Well 7991 and Well 6806 serve the southeastern portion of the CVWD service area, including the unincorporated community of Mecca and the Area 23 pressure zone via a single 18-inch pipeline. IXTP 7991 is routinely out of service and in poor condition, resulting in poor water supply reliability for Mecca and Area 23. In order to provide adequate water supply and fire flows, IXTP 7991 must be replaced. The project consists of replacing the existing IXTP 7991 with a new 1,800 gallon per minute (gpm) to 2,000 gpm adsorption treatment system, new sulfuric acid and caustic soda systems within new buildings on site, backwash pumps and piping, pre-filters, backwash tank, and demolition of the existing IXTP.

The groundwater arsenic concentration is an average of approximately 20 parts per billion (ppb), which is above the Maximum Contaminant Limit (MCL) of 10 ppb. The existing facilities on site include the well pump, a bypass and pressure reducing station, the arsenic treatment system, and a retention basin. All the components of the existing treatment system are in very poor condition and in need of replacement, except for the sodium hypochlorite chemical feed system.

Project construction would occur within the IXTP 7991 site and would involve excavation to a depth of approximately 15 feet for booster suction cans and potential activities within the adjacent roadway. Construction schedule is dependent on funding availability, but currently anticipated to begin in June 2021 and last for approximately eight months.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.5556297,-116.06082954651457,14z

Counties: Riverside County, California

# Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Birds

| NAME | STATUS |
|---|---|
| Least Bell's Vireo *Vireo bellii pusillus*<br>There is **final** critical habitat for this species. The location of the critical habitat is not available.<br>Species profile: https://ecos.fws.gov/ecp/species/5945 | Endangered |
| Southwestern Willow Flycatcher *Empidonax traillii extimus*<br>There is **final** critical habitat for this species. The location of the critical habitat is not available.<br>Species profile: https://ecos.fws.gov/ecp/species/6749 | Endangered |
| Yuma Ridgways (clapper) Rail *Rallus obsoletus [=longirostris] yumanensis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/3505 | Endangered |

## Reptiles

| NAME | STATUS |
|---|---|
| Desert Tortoise *Gopherus agassizii*<br>Population: Wherever found, except AZ south and east of Colorado R., and Mexico<br>There is **final** critical habitat for this species. The location of the critical habitat is not available.<br>Species profile: https://ecos.fws.gov/ecp/species/4481 | Threatened |

## Fishes

| NAME | STATUS |
|---|---|
| Desert Pupfish *Cyprinodon macularius*<br>There is **final** critical habitat for this species. The location of the critical habitat is not available.<br>Species profile: https://ecos.fws.gov/ecp/species/7003 | Endangered |
| Razorback Sucker *Xyrauchen texanus*<br>There is **final** critical habitat for this species. The location of the critical habitat is not available.<br>Species profile: https://ecos.fws.gov/ecp/species/530 | Endangered |

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# APPENDIX D: CULTURAL RESOURCES ASSESSMENT

# Ion Exchange Treatment Plant 7991 Replacement Project

## Cultural Resources Assessment

*prepared for*

**Woodard & Curran**
9665 Chesapeake Drive, Suite 320
San Diego, California 92123

*prepared by*

**Rincon Consultants, Inc.**
301 9th Street, Suite 10
Redlands, California 92374

**January 2021**

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Please cite this report as follows:

Haas, Hannah, Mark Strother, Rachel Perzel, and Jennifer Haddow

2021 *Cultural Resources Study for Ion Exchange Treatment Plant 7991 Replacement Project*. Rincon Consultants Project No. 20-09339. Report on file, Eastern Information Center, University of California, Riverside.

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# Executive Summary

On behalf of the Coachella Valley Water District (CVWD), Woodard & Curran retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources assessment for the Ion Exchange Treatment Plant (IXTP) 7991 Project (proposed project), in the unincorporated Riverside County community of Mecca. The proposed project consists of the demolition of the existing IXTP, located at CVWD's IXTP 7991 Site, and its replacement with a new 1,800 to 2,000 gallon-per-minute adsorption treatment system. The proposed project would also construct new sulfuric acid and caustic soda systems and associated infrastructure, such as backwash pumps and piping, pre-filters, and a backwash tank on the IXTP 7991 Site.

The proposed project is subject to the California Environmental Quality Act (CEQA) with the CVWD acting as the lead agency. It would be funded partially by a grant from the United States Department of Agriculture. The project is therefore considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (Section 106). The purpose of this study is to identify historic properties with the potential to be affected, and/or historical resources with the potential to be impacted by the proposed undertaking. It includes the delineation of an Area of Potential Effects (APE), searches of the California Historic Resources Information System (CHRIS) and the Native American Heritage Commission (NAHC) Sacred Lands File (SLF), Native American and local interested party outreach, background research, a field survey of the APE and the preparation of this report.

The APE delineated for the undertaking encompasses all demolition and construction activities included as part of the proposed project. The parcel on which the undertaking would occur is surrounded by agricultural properties that include no built environment features in the vicinity of the IXTP 7991 Site. Therefore, the APE is limited to the one-acre Riverside County Assessor's Parcel on which the undertaking would occur (Assessor's Parcel Number [APN] 727-272-008) and the Hammond Road right-of-way (ROW) located adjacent, to the south of APN 727-272-008.

The CHRIS search identified 25 previously conducted cultural resources studies within a one-mile radius of the APE. One of these studies (RI-09081) includes a portion of the current APE and did not result in the identification of any cultural resources. The CHRIS search also identified 29 previously recorded cultural resources within a 1.0-mile radius of the APE. These resources include 27 historic period resources (sites, buildings, and structures) and two prehistoric isolates (pottery sherds), none of which are within the current APE. The results of the NAHC SLF search were negative. Outreach to 23 Native American tribal contacts and three local interested parties did not indicate the presence of cultural resources in the APE.

The background research conducted for this study indicated the built environment features located in the APE were constructed after 1996 and the field survey confirmed they are contemporary buildings and structures. Due to their recent construction, a formal historical evaluation was not completed. Furthermore, as ubiquitous utilitarian structures, none of the built features in the APE appear to qualify for listing in the National Register of Historic Places under Criteria Consideration G. The field survey conducted for this study did not identify any cultural resources in the APE.

Based on the information summarized above, Rincon recommends a finding of ***no impact to historical and archaeological resources*** under CEQA, and ***no effect to historic properties*** under Section 106.

Rincon presents the following recommendation in case of unanticipated discovery of cultural resources during project development. The project is also required to adhere to regulations regarding the unanticipated discovery of human remains, detailed below.

## Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be eligible for the California Register of Historical Resources and/or National Register of Historic Places, additional work such as data recovery excavation and Native American consultation and archaeological monitoring may be warranted to mitigate any significant impacts.

## Unanticipated Discovery of Human Remains

If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a most likely descendant, who shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.

# 1 Introduction

On behalf of the Coachella Valley Water District (CVWD), Woodard & Curran retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources assessment for the Ion Exchange Treatment Plant (IXTP) 7991 Project (proposed project), located in the unincorporated Riverside County community of Mecca. The proposed project consists of the demolition of the existing IXTP located at CVWD's IXTP 7991 Site and its replacement with a new 1,800 to 2,000 gallon per minute (gpm) adsorption treatment system. The project would additionally construct new sulfuric acid and caustic soda systems, and associated infrastructure such as backwash pumps and piping, pre-filters, and a backwash tank on the IXTP 7991 Site. The proposed project is subject to the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (Section 106).

## 1.1 Project Location and Description

The proposed project site is in the Coachella Valley of Riverside County, in the United States Geological Survey (USGS) Mecca, California 7.5-minute topographic quadrangle. The project site is east of State Route 111 and approximately 0.5 mile south of the unincorporated community of Mecca (Figure 1). It encompasses the one-acre Riverside County Assessor's parcel that comprises CVWD's IXTP 7991 Site and the Hammond Road right-of-way (ROW) adjacent to the parcel. Regional land uses surrounding the project site primarily consist of uncultivated and cultivated agricultural parcels. The IXTP 7991 Site serves the southeastern portion of the CVWD service area, including the unincorporated community of Mecca and the Area 23 pressure zone via a single 18-inch pipeline.

CVWD operates an IXTP at its IXTP 7991 Site to treat high arsenic levels in the groundwater. In addition to the IXTP, existing facilities at the IXTP 7991 Site include a well pump, bypass and pressure reducing station, and retention basin constructed on the site following 1996. Many of the components of the existing treatment system are in poor condition and in need of replacement, except for the sodium hypochlorite chemical feed system. IXTP 7991 is in poor condition, resulting in poor water supply reliability for Mecca and Area 23. To provide adequate water supply and fire flows, IXTP 7991 must be replaced. The proposed project consists of the demolition of the existing IXTP 7991 and its replacement with a new 1,800 to 2,000 gpm adsorption treatment system, new sulfuric acid and caustic soda systems, and associated infrastructure, such as backwash pumps and piping, pre-filters, and a backwash tank.

Project construction would occur within the IXTP 7991 Site and within the adjacent Hammond Road ROW and would involve excavation to a depth of approximately 15 feet for booster suction cans. Construction schedule depends upon funding availability but is currently anticipated to begin in June 2021 and last for approximately eight months.

## 1.2 Area of Potential Effects

36 Code of Federal Regulations (CFR) Section 800.16(d) defines a project APE as the "geographic area or areas within which a project may directly or indirectly cause changes in the character or use of historic properties if any such property exists." The APE generally encompasses all areas where activities associated with an undertaking would occur and includes all construction staging areas.

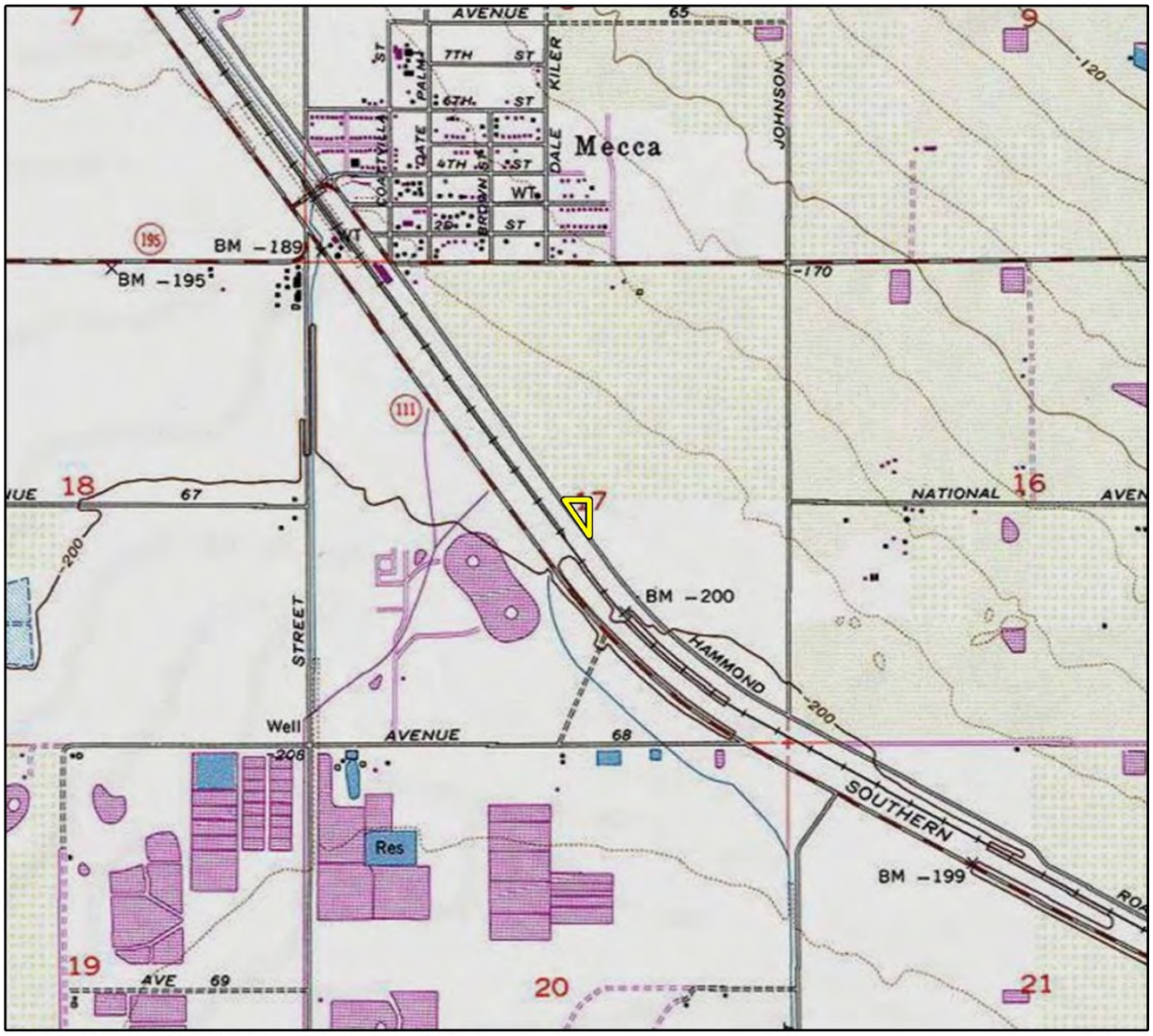
All construction associated with the proposed undertaking would occur on CVWD's IXTP 7991 Site and within the adjacent Hammond Road ROW. None of the properties surrounding the IXTP 7991 Site feature buildings in the immediate vicinity of the site. Therefore, the APE for the current undertaking was limited to the one-acre Riverside County Assessor's parcel that makes up the IXTP 7991 Site (Assessor's Parcel Number [APN] 727-272-008) and the Hammond Road ROW located adjacent to APN 727-272-008 (Figure 2).

The APE must additionally be considered a three-dimensional space. The undertaking may include excavation of up to 15 feet to account for the placement of booster suction cans. Any buildings and structures constructed as part of the undertaking would be comparable in size, scale, and massing to those already on site and are not anticipated to be over 18 feet in height. Therefore, the vertical limits of the APE extend from 15 feet below grade to 18 feet above grade.

## 1.3 Personnel

Rincon Archaeologist, Hannah Haas, MA, Registered Professional Archaeologist (RPA), managed this cultural resources assessment. Ms. Haas meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). Architectural Historian, Rachel Perzel, MA, conducted the Native American and local interested party outreach and co-authored this report. Archaeologist, Mark Strother, MA, RPA, completed the field survey and co-authored this report. Staff at the Eastern Information Center (EIC) completed the California Historical Resources Information System (CHRIS) records search. The Native American Heritage Commission (NAHC) conducted the Sacred Lands File (SLF) search. Geographic Information Systems Analyst Doug Carreiro prepared the figures found in this report. Principal Jennifer Haddow, PhD reviewed this report for quality control.

**Figure 1 Project Vicinity**

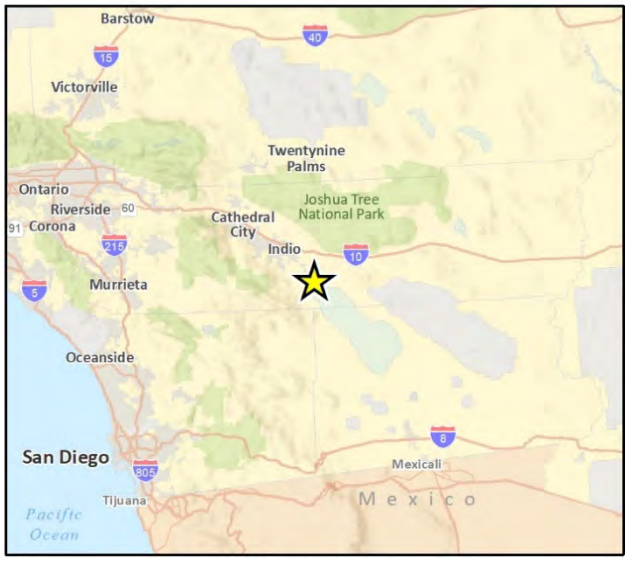



*Imagery provided by National Geographic Society, Esri and its licensors © 2020. Mecca Quadrangle. T07S R09E S17. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may havechanged since the original topographic map was assembled.*

Area of Potential Effects

0 1,000 2,000 Feet

N



## Figure 2 Area of Potential Effects

*Imagery provided by Microsoft Bing and its licensors © 2021.*

# 2 Regulatory Setting

This section includes a discussion of the applicable federal, state and local laws, ordinances, regulations, and standards governing cultural resources to which the project should adhere before and during implementation.

## 2.1 Federal Regulations

### 2.1.1 National Historic Preservation Act

The proposed project is assumed to be subject to Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended). The definition of a federal undertaking in 36 CFR 800.16(y) includes projects requiring a federal permit, license, or approval. Cultural resources are considered during federal undertakings chiefly under Section 106 of the NHPA through one of its implementing regulations, 36 CFR 800 (Protection of Historic Properties), as well as the National Environmental Policy Act. Properties of traditional, religious, and cultural importance to Native Americans are considered under both Section 101 (d)(6)(A) and Section 106 36 CFR 800.3-800.10 of the NHPA. Other federal laws include the Archaeological Data Preservation Act of 1974, the American Indian Religious Freedom Act of 1978, the Archaeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1989, among others.

Section 106 of the NHPA (16 United States Code 470f) requires federal agencies to take into account the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places (NRHP) and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Under Section 106, the significance of any adversely affected historic property is assessed and mitigation measures are proposed to reduce any impacts to an acceptable level. Historic properties are those significant cultural resources that are listed in or are eligible for listing in the NRHP per the criteria listed below (36 CFR 60.4):

The quality of significance in American, state, and local history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and meet one or more of the following criteria:

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

## 2.2 State Regulations

### 2.2.1 California Environmental Quality Act

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

A resource shall be considered *historically significant* if it meets any of the following criteria:

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

In addition, if it can be demonstrated that a project will cause damage to a *unique archaeological resource*, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a], [b]).

PRC Section 21083.2(g) defines a *unique archaeological resource* as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

# 3 Natural and Cultural Setting

## 3.1 Natural Setting

The APE is in the Coachella Valley, within the Colorado Desert region of the Lower Sonoran Desert. Elevations in this region exceed 4,000 feet above mean sea level in the Jacumba Mountains and dip to 287 feet below mean sea level at the base of the Salton Trough. The elevation of the APE is approximately 187 feet below mean sea level. The Salton Trough is the central feature within this desert region and is part of the seismically active Gulf of California Rift Zone. Fresh water and marine events of inundation and drying have occurred for millennia resulting in the accumulation of some 20,000 feet of marine and non-marine sediments (Chandler et al. 2003). Prehistorically, flood waters reaching the Salton Trough would persist until approximately 42 feet above mean sea level whereby the water would crest the Cerro Prieto Delta, ultimately discharging into the Gulf of California.

The current climate is characterized by dry conditions, unpredictable rainfall, and excessive summer temperatures. Plant communities vary depending on elevation, with creosote plants dominating the valley floors that transition to riparian zones near dependable water sources. Land uses in the vicinity of the APE are predominantly agricultural and residential. The entire fenced project site within the APE is developed, consisting of structures, tanks, compacted open areas for vehicle access, and a water blow off basin.

## 3.2 Cultural Setting

The cultural setting for the project vicinity is broadly presented in three overviews: Prehistoric, Ethnographic, and Historic. The Prehistoric and Historic overviews describe human occupation before and after European contact, while the Ethnographic Overview provides a synchronic “snapshot” of traditional Native American lifeways as described by European observers prior to assimilative actions.

### 3.2.1 Prehistoric Setting

California prehistory for the project area is commonly divided into four broad temporal periods. These include the Paleo-Indian Period (ca. 10,000–6000 BC), Early Archaic Period (6000–2000 BC), Late Archaic Period (2000 BC–AD 500), and Late Prehistoric Period (AD 500–Historic Contact). The Late Prehistoric Period is further divided into the Patayan I (ca. AD 800 – 1050), Patayan II (ca. AD 950 – 1500), and Patayan III (AD 1500 to European contact).

The project lies in what generally is described as the Colorado Desert region (Schaefer and Laylander 2007:247). Though it shares similarities with the adjacent Mojave and Sonoran deserts, the Colorado Desert possesses a unique and distinct natural and cultural history. The Colorado Desert is bordered on the west by the Peninsular Range and the Pacific Coastal Plain, the Colorado River to the east, the Mojave Desert to the north, and the Gulf of California to the south. This part of the Colorado Desert is the Salton Trough, which lies primarily within today’s Imperial, Riverside, and San Diego counties.

Although now an arid region, a series of lakes collectively referred to as Lake Cahuilla (also known as Lake LeConte and Blake's Sea) occupied much of the Salton Trough throughout the Holocene. Lake Cahuilla was formed by the western diversion of the Colorado River into the Salton Trough when natural sediment barriers blocked the river's flow south to the Gulf of California. Lake Cahuilla's maximum shoreline is marked by extensive beach formations at 42 feet (13 meters) above mean sea level (Schaefer n.d.). Radiocarbon dates from archaeological sites and marsh deposits indicate at least three episodes of infilling and recession occurred between AD 1200 and the late 1600s (Buckles and Krantz 2005; Laylander 1995; Schaefer and Laylander 2007; Waters 1983). An infilling occurred in the 1200s followed by a recession in the late 1300s or early 1400s. Another complete infilling took place in the 1400s, which receded in the late 1400s or early 1500s. A final infilling appears to have occurred in the 1600s, followed by the last recession ending after AD 1700. It is possible that additional infillings occurred prior to AD 1200.

The lake experienced many partial infillings and fluctuations in level over time (Laylander 2006; Schaefer n.d.; Laylander 2006). When the lake was present, freshwater fish, shellfish, migratory birds, and riparian flora and fauna associated with the lake and shoreline may have been important factors in human subsistence and settlement patterns during most of the Prehistoric Period. Some scholars argue that the desiccation of the lake caused permanent shoreline populations to move out of the valley and into the mountains to the west and the Colorado River to the east. Others argue that the valley was seasonally inhabited by small mobile groups due to unstable seasonal fluctuations in lake levels. Once the lake dried up, these groups would have altered their seasonal rounds to exclude Lake Cahuilla or to focus on newly exposed resources on the lakebed (Schaefer n.d.).

Increased salinity levels would have accompanied the recession of Lake Cahuilla. This would have impoverished and eliminated the freshwater fauna and flora living in and around the lake. It is possible, however, that the lake could have continued to be exploitable by humans at least as low as 180 feet below mean sea level (Laylander 2006).

## Paleo-Indian Period (ca. 10,000 – 6000 BC)

In contrast to the dry climate of today, California's desert regions during the late Pleistocene and the early Holocene contained a series of large, pluvial lakes. Archaeological evidence suggests that early Holocene hunter-gathers of the desert region were well adapted to the wetland environments supported by these lakes. Sites were typically located on or near the shores of former pluvial lakes and marshes and have artifact assemblages marked by their diversity of flaked-stone artifacts. Such sites, however, have not been documented for the Colorado Desert region, including for the nearly 10,000-year-old pluvial shoreline of Lake Cahuilla (Moratto 1984:96; Schaefer and Laylander 2007:247).

The San Dieguito Complex is a well-defined expression or cultural pattern of the Paleo-Indian Period in the California desert region. Originally named for the cultural sequence in western San Diego County (Rogers 1929), the complex now incorporates additional local patterns within the Colorado and Mojave Deserts and the western Great Basin (Rogers 1966; Warren 1967). Leaf-shaped points and knives, crescents, and scrapers characterize the artifact assemblages throughout the region. Moratto (1984:92) subsumed the numerous local patterns (including the Lake Mojave Period of Warren 1967) under the overarching Western Pluvial Lakes Tradition, first defined by Bedwell (1970). Current studies regarding the Colorado Desert, however, typically reference the Paleo-Indian Period or San Dieguito Complex, rather than the Western Pluvial Lakes Tradition (c.f., Schaefer and Laylander 2007).

## Early Archaic Period (6000–2000 BC)

As the pluvial conditions of the Pleistocene transitioned to the more arid Holocene climate, many of the lakes and wetlands present during the Paleo-Indian Period began to dry up. By the Early Archaic Period, many of the wetlands throughout the three deserts had disappeared (though brief periods of moister conditions do appear later as discussed below). Desert populations appear to have adapted to these more arid conditions by withdrawing to the margins of the desert or concentrating around the few oases still present within it (Warren 1984:413-414). A brief period of moister conditions may have led to a temporary reoccupation of the desert region between 4500 and 3500 BC, but evidence from the Mojave Desert and western Great Basin sites suggests that most Early Archaic sites were temporary, seasonal camps of small, highly mobile groups. Slab metates and hand stones (used to process hard seeds), shaped scrapers, and the Pinto-style projectile point characterize the artifact assemblages of the Pinto Basin Complex. In the Colorado Desert, the Indian Hill rockshelter is recognized as one of the best understood Archaic Period sites, with occupation extending back more than 4,000 years (Schaefer and Laylander 2007:247).

## Late Archaic Period (2000 BC–AD 500)

The onset of the Late Archaic coincides with the beginning of the Little Pluvial, a brief period of moister climatic conditions. By the second half of the Late Archaic, arid conditions returned. Desert peoples appear to have been well adapted to these conditions by this time, however, and no notable decrease in population appeared to have occurred. Late Archaic sites are characterized by a wider range of diagnostic projectile points, such as the Gypsum and Elko types, as well as split-twig figurines, the latter typically preserved in caves (Warren 1984:416–417). Hand stones and metates continued to be employed but were supplemented by the introduction of mortars and pestles during this period. Based on ethnographic analogy and site location, Warren (1984:419) suggests that mortars and pestles were used to process mesquite pods. The bow and arrow also appear to have been introduced near the end of this period. In addition, this period is marked by an increased presence of exotic trade goods, including shell ornaments from the Pacific coast.

Several large Late Archaic Period sites in the Colorado Desert indicate increased sedentism, particularly in the northern Coachella Valley (Love and Dahdul 2002; Schaefer and Laylander 2007). Late Archaic sites near the maximum shoreline of Lake Cahuilla indicate rabbits supplemented lacustrine food sources such as fish, shellfish, and migratory waterfowl (Schaefer and Laylander 2007). Long-distance trade is evidenced in these assemblages by the presence of obsidian from the Coso volcanic field in Inyo County and shell beads from the Gulf of California.

## Late Prehistoric Period (AD 500–Historic Contact)

The period from the end of the Archaic Period to European contact was a time of complex and ongoing change in material culture, burial practices, and subsistence focus. These changes most likely reflect both cultural influences from outside the region and in situ cultural adaptations in response to shifts in environmental conditions. The Late Prehistoric, commonly called the Patayan Period in the Colorado Desert, is identified by the introduction of pottery and marked by stronger regional differentiation. While the artifact assemblages are similar to those of the Late Archaic, notable differences exist. In addition to ceramics, cremation first appears in the archaeological record in the Colorado Desert at this time. In general, projectile points are smaller and triangular. Regional differentiation in the distribution of projectile point and pottery types was due, in part, to trade and influences of neighboring cultures in the Lower Colorado River and Great Basin. Such influence includes the major migration into southern California of Takic-speaking people (Uto-

Aztecan language group) from the Great Basin region (Nevada, Utah, and eastern California) (Warren 1968).

The Patayan sequence cultural pattern within the Colorado Desert region is divided into three periods with different pottery types and regional site distributions. Cottonwood Triangular and Desert-Side Notched projectile points, the change from extended inhumations to cremations, the introduction of pottery, networks of trail systems (with pot-drops and trail-side shrines), and the late introduction of small-scale agriculture characterize the Patayan period in general. Pottery is increasingly common throughout the period, including brown wares manufactured from upland clay sources (e.g., Tizon Brown Ware) and buff wares made from lowland sedimentary clays (e.g., Colorado Buff Ware). Material culture also included clay figurines and pipes, bedrock grinding slicks and mortars, worked bone tools, and rock art with an increasing progression toward distinctive Patayan symbolism (Schaefer and Laylander 2007:249). Interregional exchange goods include shell beads from the coast and Gulf of California; wonderstone from Rainbow Rock near today's Imperial City; and obsidian from Obsidian Butte near the southern end of today's Salton Sea, which at various times in the past was covered by the waters of Holocene Lake Cahuilla. The cyclical filling and desiccation of Lake Cahuilla appears to have dictated the settlement patterns in the Salton Trough and Coachella Valley during this period.

During Patayan I (ca. AD 800 – 1050), mobile groups settled seasonally along the Lower Colorado River, practicing a mixed hunter-gatherer and horticultural economy. Their tool kit included pottery and Cottonwood Triangular and Desert-Side Notched projectile points. The agricultural-based Hohokam on the upper Gila River likely influenced this cultural pattern. Patayan II (ca. AD 950 – 1500) is characterized by the spread of these cultural traits from the Colorado River into the Colorado and Mojave Deserts. It also coincides with the infilling of Lake Cahuilla, as well as locally manufactured new ceramic types, such as Tizon Brown Ware. Patayan III (AD 1500 to European contact) is marked by the ultimate recession of Lake Cahuilla, the occurrence of specific pottery types (Colorado Buff Ware and painted pottery), and the practice of small-scale agriculture.

## 3.3 Ethnographic Overview

### 3.3.1 Cahuilla

The APE is situated in a region historically occupied by a Native American group known as the Cahuilla (Bean 1978, Kroeber 1925). The term Cahuilla likely derived from the native word káwiya, meaning "master" or "boss" (Bean 1978:575). Traditional Cahuilla ethnographic territory extended west to east from the present-day city of Riverside to the central portion of the Salton Sea in the Colorado Desert, and south to north from the San Jacinto Valley to the San Bernardino Mountains.

The Cahuilla, like their neighbors to west, the Luiseño and Juaneño, and the Cupeño to the south, are speakers of a Cupan language. Cupan languages are part of the Takic linguistic subfamily of the Uto-Aztecan language family. It is thought that the Cahuilla migrated to southern California approximately 2,000 to 3,000 years ago, most likely from the southern Sierra Nevada mountain ranges of east-central California with other Takic speaking social groups (Moratto 1984:559).

Cahuilla social organization was hierarchical and contained three primary levels (Bean 1978:580). The highest level was the cultural nationality, encompassing everyone speaking a common language. The next level included the two patrimoieties of the Wildcats (tuktum) and the Coyotes ('istam). Every clan of the Cahuilla fell into one or the other of these moieties. The lowest level

consisted of the numerous political-ritual-corporate units called sibs, or a patrilineal clan (Bean 1978:580).

Cahuilla villages were usually located in canyons or on alluvial fans near a source of accessible water. Each lineage group maintained their own houses (kish) and granaries, and constructed ramadas for work and cooking. Sweat houses and song houses (for non-religious music) were also often present. Each community also had a separate house for the lineage or clan leader. A ceremonial house, or kíš ʔámnawet, associated with the clan leader was where major religious ceremonies were held. Houses and ancillary structures were often spaced apart, and a "village" could extend over a mile or two. Each lineage had ownership rights to various resource collecting locations, "including food collecting, hunting, and other areas. Individuals also owned specific areas or resources, e.g., plant foods, hunting areas, mineral collecting places, or sacred spots used only by shamans, healers and the like" (Bean 1990:2).

The Cahuilla hunted a variety of game, including mountain sheep, cottontail, jackrabbit, mice, and wood rats, as well as predators such as mountain lion, coyote, wolf, bobcat, and fox. Various birds were also consumed, including quail, duck, and dove, plus various types of reptiles, amphibians, and insects. The Cahuilla employed a wide variety of tools and implements to gather and collect food resources. For the hunt, these included the bow and arrow, traps, nets, slings and blinds for hunting land mammals and birds, and nets for fishing. Rabbits and hares were commonly brought down by the throwing stick, but when communal hunts were organized for these animals, the Cahuilla often utilized clubs and large nets.

Foodstuffs were processed using a variety of tools, including portable stone mortars, bedrock mortars and pestles, basket hopper mortars, manos and metates, bedrock grinding slicks, hammerstones and anvils, and many others. Food was consumed from woven and carved wood vessels and pottery vessels. The ground meal and unprocessed hard seeds were stored in large finely woven baskets, and the unprocessed mesquite beans were stored in large granaries woven of willow branches and raised off the ground on platforms to keep them from vermin. Pottery vessels were made by the Cahuilla and traded from the Yuman-speaking groups across the Colorado River and to the south.

The Cahuilla had adopted limited agricultural practices by the time Euro-Americans traveled into their territory. Bean (1978:578) has suggested that their "proto-agricultural techniques and a marginal agriculture" consisting of beans, squash and corn may have been adopted from the Colorado River groups to the east. By the time of the first Romero Expedition in 1823-24, they were observed growing corn, pumpkins, and beans in small gardens localized around springs in the Thermal area of the Coachella Valley (Bean and Mason 1962:104). The introduction of European plants such as barley and other grain crops suggest an interaction with the missions or local Mexican rancheros. Despite the increasing use and diversity of crops, no evidence indicates that this small-scale agriculture was anything more than a supplement to Cahuilla subsistence, and it apparently did not alter social organization.

By 1819, several Spanish mission outposts, known as *asistencias*, were established near Cahuilla territory at San Bernardino and San Jacinto. Cahuilla interaction with Europeans at this time was not as intense as it was for native groups living along the coast. This was likely due to the local topography and lack of water, which made the area less attractive to colonists. By the 1820s, European interaction increased as mission ranchos were established in the region and local Cahuilla were employed to work on them.

The Bradshaw Trail was established in 1862 and was the first major east-west stage and freight route through the Coachella Valley. Traversing the San Gorgonio Pass, the trail connected gold mines on the Colorado River with the coast. Bradshaw based his trail on the Cocomaricopa Trail, with maps and guidance provided by local Native Americans. Journals by early travelers along the Bradshaw Trail told of encountering Cahuilla villages and walk-in wells during their journey through the Coachella Valley. The continued influx of immigrants into the region introduced the Cahuilla to European diseases. The single worst recorded event was a smallpox epidemic in 1862-63. By 1891, only 1,160 Cahuilla remained within what was left of their territory, reduced from an estimated aboriginal population of 6,000–10,000 (Bean 1978:583-584). By 1974, approximately 900 people claimed Cahuilla descent, most of whom resided on reservations.

Between 1875 and 1891, the United States established ten reservations for the Cahuilla within their traditional territory. These reservations include Agua Caliente, Augustine, Cabazon, Cahuilla, Los Coyotes, Morongo, Ramona, Santa Rosa, Soboba, and Torres-Martinez (Bean 1978:585). Four of the reservations are shared with other groups, including the Chemehuevi, Cupeño, and Serrano.

## 3.4 History

The post-contact history of California is generally divided into three timespans: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present). Each of these periods is briefly described below.

### 3.4.1 Spanish Period (1769–1822)

Spanish exploration of California began when Juan Rodríguez Cabrillo led the first European expedition into the region in 1542. For more than 200 years after his initial expedition, Spanish, Portuguese, British, and Russian explorers sailed the California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). Spanish entry into what was to become Riverside County did not occur until 1774 when Juan Bautista de Anza led an expedition from Sonora, Mexico to Monterey in northern California (Lech 1998).

In 1769, Gaspar de Portolá and Franciscan Father Junípero Serra established the first Spanish settlement in what was then known as Alta (upper) California at Mission San Diego de Alcalá. This was the first of 21 missions erected by the Spanish between 1769 and 1823. The establishment of the missions marks the first sustained occupation of Alta California by the Spanish. In addition to the missions, four presidios and three pueblos (towns) were established throughout the state (State Lands Commission 1982).

During this period, Spain also granted ranchos to prominent citizens and soldiers, though very few in comparison to the subsequent Mexican Period. To manage and expand their herds of cattle on these large ranchos, colonists enlisted the labor of the surrounding Native American population, sometimes forcibly (Engelhardt 1927a; Reséndez 2017). The missions were responsible for administrating the local Indians and converting the population to Christianity (Engelhardt 1927b). The influx of European settlers brought the local Native American population in contact with European diseases, against which they had no immunity, resulting in catastrophic reduction in native populations throughout the state (McCawley 1996).

### 3.4.2 Mexican Period (1822–1848)

The Mexican Period commenced when news of the success of the Mexican War of Independence (1810-1821) against the Spanish crown reached California in 1822. This period saw the privatization of mission lands in California with the passage of the Secularization Act of 1833. This Act federalized mission lands and enabled Mexican governors in California to distribute former mission lands to individuals in the form of land grants. Successive Mexican governors made approximately 700 land grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Shumway 2007). About 15 land grants (ranchos) were in Riverside County, though none of those were in the vicinity of Mecca (Shumway 2007).

### 3.4.3 American Period (1848–Present)

The American Period officially began with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for conquered territory including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. Settlement of southern California increased dramatically in the early American Period. Many ranchos were sold or otherwise acquired by Americans, and most were subdivided into agricultural parcels or towns.

The discovery of gold in northern California in 1848 led to the California Gold Rush, though the first California gold found by settlers was discovered in Placerita Canyon in 1842 (Workman 1936; Guinn 1977). Southern California remained dominated by cattle ranches in the early American period, though droughts and increasing population resulted in farming and more urban professions supplanting ranching through the late nineteenth century. In 1850, California was admitted into the United States and by 1853, the population of California exceeded 300,000. Thousands of settlers and immigrants continued to move into the state, particularly after completion of the transcontinental railroad in 1869. Homesteading in the Coachella Valley began in the 1880s after the Desert Land Law opened public land for settlement in 1877 and non-railroad lands were opened to homesteaders in 1885. Agriculture and tourism increased in the valley due to deep well drilling, which began about 1894 (City of La Quinta 2011).

Near the Salton Trough, numerous natural materials have been extracted, including profitable ones such as gypsum. Though no gold exists in the Coachella Valley, gold discovered near the Colorado River spurred development of the Bradshaw Trail linking the San Gorgonio Pass and greater Los Angeles area with Arizona (Chandler et al. 2003). Two salt mining operations, the New Liverpool Salt Company and the Standard Company Salt, profitably mined the accumulation of salt from the Salton Trough (later the Salton Sea) in the 1890s but were inundated by the flood of 1905.

### 3.4.4 Local History

Nineteenth century proposals to irrigate the Colorado Desert for agricultural and residential development began in 1891 with the formation of the Colorado River Irrigation Company, which was then superseded in 1896 by the California Development Company. Funding was provided through a contract signed by George Chaffey in 1900 (Chandler et al. 2003). Using portions of the Alamo River, construction of the Imperial Canal commenced in spring of 1900, bringing irrigation into the Imperial Valley by 1902. Excessive precipitation during the winter of 1904-1905 resulted in discharge into the Colorado River that exceeded the canal intake. Diversion attempts to control the overwhelming flood waters proved unsuccessful. This allowed the entire flow of the Colorado River to fill the Salton Basin, creating the contemporary Salton Sea (Chandler et al. 2003). A branch of the Southern Pacific Railroad brought in rock and worked to construct levees and dams that ultimately

sealed the compromised canal on February 10, 1907. Precipitation, irrigation runoff, and inflow from the Alamo and New rivers prevent the current Salton Sea from evaporating entirely.

CVWD was organized in 1918 with the task of protecting local water sources in the Coachella Valley (CVWD 1968). To fulfill that aim, CVWD's first task was to acquire the water rights to the Whitewater River. It later established the Coachella Branch of the All-American Canal to supplement natural water supply to the valley. The work of CVWD provided the water necessary to establish the valley's numerous golf courses and resorts.

As America's military became involved in World War II, the War Plan Division of the United States War Department General Staff recognized the importance of providing military training for air and ground forces under environmental conditions similar to those anticipated in the North African campaign. After a survey of the Mojave Desert, General George S. Patton Jr., United States Army, selected the site of the Desert Training Center (DTC) in late March 1942 in an area that extended from Phoenix, Arizona in the east, to Pomona, California in the west, and from Boulder City, Nevada in the north to Yuma, Arizona in the south. The DTC exceeded 10,000 square miles of government-owned and private land. General Patton made his headquarters at Camp Young, near Shavers Summit (now Chiriaco Summit) approximately 40 miles east of the project area. Ten additional camps were established in the DTC, including Camp Coxcomb, Camp Iron Mountain, Camp Granite, Camp Essex, Camp Ibis, Camp Hyder, Camp Horn, Camp Laguna, Camp Pilot Knob, and Camp Bouse. In October 1943, the DTC was changed to the California-Arizona Maneuver Area (CAMA) to reflect the growing scale and purpose of the training facility. At that time, CAMA was the world's largest military installation in both size and population, where nearly one million American servicemen and women were trained. Army divisions trained near the Salton Sea, throughout the Coachella Valley, and the Mojave Desert (Chandler et al. 2003). On April 30, 1944, two years after its inception, the Army closed CAMA and the camps were abandoned.

## Mecca

Mecca is an approximately 6.96-square mile census-designated place in an unincorporated part of the eastern Coachella Valley of Riverside County, California, on the north shore of the Salton Sea. 2010 population estimates for the community record Mecca's population at 8,577 (United States Census Bureau 2020).

# 4 Background Research

## 4.1 Cultural Resources Records Search

On May 4, 2020, a CHRIS database search was conducted by in-house staff at the EIC, at the University of California, Riverside. The purpose of the search was to identify previously completed cultural resources studies, and previously recorded cultural resources in the project APE and a one-mile radius surrounding it. Rincon additionally reviewed the NRHP, the CRHR, the California Historical Landmarks and Points of Historical Interest lists, and the Built Environment Resources Directory for Riverside County to confirm the presence of known cultural resources in the vicinity of the APE. A summary of the CHRIS search results is included in Appendix A and described below.

## 4.2 Previously Conducted Cultural Resources Studies

The CHRIS search identified 25 previously conducted cultural resources studies within a 1.0-mile radius of the APE. Of the 25 studies, one includes a portion of the current APE (RI-09081). A summary of the cultural resources studies that have been previously conducted within a 1.0-mile radius of the current APE can be found in Table 1, followed by details related to report RI-09081.

**Table 1 Previously Conducted Cultural Resources Studies**

| Report Number | Author(s) | Year | Title | Relationship to APE |
|---|---|---|---|---|
| RI-03245 | Van Horn, David M., Laurie S. White, and Robert S. White | 1990 | *Cultural Resources Sensitivity Overview for the Coachella Valley Enterprise Zone* | Outside |
| RI-03415 | Rosen, Martin | 1991 | *Negative Archaeological Survey Report: Fourth Addendum, 11-RIV-86, PM R2.9-R22.0, 11208, 179800; Vicinity of Avenue 81 to Vicinity of Dillon Road* | Outside |
| RI-03953 | Brock, James | 1996 | *A Cultural Resources Assessment of Lots 5 and 6, Block 25 of the Amended Map of the Mecca Townsite, County of Riverside, California* | Outside |
| RI-04312 | Brock, James | 1999 | *Phase I Cultural Resources Assessment for the 13-acre Self Help Housing Project, Mecca, Riverside County, California* | Outside |
| RI-04423 | Brock, James | 2000 | *Phase I Cultural Resources Assessment for the Proposed Villas Oscar Romero Project, Mecca, Riverside County, California* | Outside |
| RI-04680 | Brock, James | 2003 | *Phase I Cultural Resources Assessment for Tentative Tract Map No. 31027, Mecca Area of Unincorporated Riverside County, California (APNs 727-112-003 and -10; Paseo de las Palmas Project)* | Outside |

| Report Number | Author(s) | Year | Title | Relationship to APE |
|---|---|---|---|---|
| RI-04772 | Brock, James | 2004 | *Phase I Cultural Resources Assessment for APN-727-112-015, Mecca Area of Unincorporated Riverside County, California (Paseo de los Heroes II Project)* | Outside |
| RI-05152 | Hudlow, Scott M. | 2005 | *A Phase I Cultural Resources Survey for Global Premiere, Mecca, Riverside County, California* | Outside |
| RI-05154 | Hudlow, Scott M. | 2004 | *A Phase I Cultural Resources Survey for Global Premiere, Mecca, Riverside County, California* | Outside |
| RI-06711 | Brock, James | 2006 | *Phase I Cultural Resources Assessment for Tentative Tract Map No. 34120, Mecca Area of Unincorporated Riverside County, California* | Outside |
| RI-07586 | Denniston, Elizabeth L., Vanessa Mirro, and David D. Earle | 2008 | *Phase I Cultural Resources Assessment of Approximately 4 miles for the Mecca Sewer Force Main Project Near the Community of Mecca, Unincorporated Riverside County, California* | Outside |
| RI-07793 | Encarnacion, Dierdre, Daniel Ballester, and Laura H. Shaker | 2008 | *Phase I Archaeological Assessment: San Cristobal Migrant Agricultural Workers Housing, Assessor's Parcel No. 729-050-002, near the Community of Mecca, Riverside County, California* | Outside |
| RI-07930 | CRM TECH | 2008 | *Phase I Historical/Archeological Assessment: Mecca Master Plan (SP377), near the Community of Mecca, Riverside County, California* | Outside |
| RI-08194 | George, Joan, David Earle, and Vanessa Mirro | 2009 | *Phase I Cultural Resources Assessment for the LA Pena Housing Facility Water Supply Project Near Mecca, Riverside County, California* | Outside |
| RI-08201 | Encarnacion, Diedre, Daniel Ballester, and Laura H. Shaker | 2009 | *Identification and Evaluation of Historical Properties: Plaza La Esperanza Project* | Outside |
| RI-08386 | George, Joan and Vanessa Mirro | 2010 | *Phase I Cultural Resources Assessment for the Lower Valley Irrigation System Expansion Project Near Mecca, Riverside County, California* | Outside |
| RI-08434 | Smallwood, Josh | 2010 | *Letter Report: Cultural Resources Monitoring at Site CA-RIV-3438H (Historical Walters/Mecca Railroad Station) for Construction of the Mecca Sewer Force Main Project near Mecca, Riverside County, California* | Outside |
| RI-09081 | Tang, Bai "Tom", Mariam Dahdul, Harry M. Quinn, and Daniel Ballester | 2014 | *Identification and Evaluation of Historic Properties: Desert Alliance for Community Empowerment, Sanitary Sewer and Agricultural Drainage Pipe and Domestic Pipe Improvement Project, near the Community of Mecca, Riverside County California* | **Partially Within** |

| Report Number | Author(s) | Year | Title | Relationship to APE |
|---|---|---|---|---|
| RI-09111 | Tang, Bai "Tom", Deirdre Encarnacion, Harry M. Quinn, and Daniel Ballester | 2014 | *Identification and Evaluation of Historic Properties: San Antonio del Desierto Disadvantaged Communities Sewer Extension, near the Community of Mecca, Riverside County, California* | Outside |
| RI-09137 | Segovia, Frances | 2014 | *Addendum to Cultural Resources Survey Results for the Mobile Home Park Paving Project in the Coachella Valley in Unincorporated Areas of Riverside County: Project Location #1 (LSA Project No. RCT1306A)* | Outside |
| RI-09139 | Segovia, Frances | 2014 | *Cultural Resource Survey Results for the Mobile Home Parks Paving Project in the Coachella Valley in Unincorporated Areas of Riverside County, California (LSA Project No. RCT1306)* | Outside |
| RI-09766 | Dunay, Amy | 2015 | *Supplemental Historic Property Survey Report for the Avenue 66 Grade Separation Project* | Outside |
| RI-09768 | Love, Bruce and Bai "Tom" Tang | 2000 | *Cultural Resource Element City of La Quinta General Plan* | Outside |
| RI-10373 | George, Joan and Kholood Abdo-Hintzman | 2018 | *Phase I Cultural Resource Assessment for the Dale Kiler Road Water Main Replacement Project, Community of Mecca, Riverside County, California* | Outside |
| RI-10451 | Mirro, Michael | 2010 | *Cultural Resources Records Search for Shot Points Located on Private Land for the U.S. Geological Survey (USGS) Salton Seismic Imaging Project (SSIP)* | Outside |

Source: EIC 2020

APN = Assessor's Parcel Number

### 4.2.1 RI-09081

RI-09081 (*Identification and Evaluation of Historic Properties Desert Alliance for Community Empowerment Sanitary Sewer and Agricultural Drainage Pipe and Domestic Pipe Improvement Project Near the Community of Mecca, Riverside County, California*) is a report authored by CRM Tech for the United States Department of Agriculture, Rural Development, and CVWD in 2014. The APE delineated for the study includes the Hammond Road ROW, a portion of which is within the current APE. The study included a CHRIS search, background research, Native American outreach, and a field survey of the APE. The study did not result in the identification of any cultural resources in the APE.

## 4.3 Previously Recorded Cultural Resources

The CHRIS search identified 29 previously recorded cultural resources within a 1.0-mile radius of the APE. These resources include 27 historic period resources (sites, buildings, and structures) and two prehistoric isolates (pottery sherds). These previously recorded resources, none of which are located within the current APE, are listed in Table 2.

## Table 2 Previously Recorded Resources Within 1-Mile of the APE

| Primary Number | Trinomial | Resource Type/Description | Recorder(s) and Year(s) | Relationship to APE |
|---|---|---|---|---|
| P-33-003438 | CA-RIV-003438 | Historic Site | 1988 (R.M. Apple, T. Wahoff, K. Norwood, Dames & Moore);<br>1990 (D. Van Horn, Archaeological Associates Ltd.);<br>1999 (S. Ashkar, M. Avina, J. Doty, E. Prendergast);<br>2008 (C. Bouscaren, J. Coats, Applied EarthWorks, Inc.);<br>2012 (Scott Kremkau, Statistical Research, Inc.) | Outside |
| P-33-005696 | N/A | Historic Building | 1983 (Cecelia Foulkes, Riverside County Historical Commission) | Outside |
| P-33-005697 | N/A | Historic Building | 1983 (Cecelia Foulkes, Riverside County Historical Commission) | Outside |
| P-33-005698 | N/A | Historic Building | 1983 (Cecelia Foulkes, Riverside County Historical Commission) | Outside |
| P-33-005699 | N/A | Historic Site | 1973 (Point of Historical Interest Form, Sacramento, CA);<br>1983 (Cecelia Foulkes, Riverside County Historical Commission, Riverside, CA);<br>2009 (Joan George, Applied Earthworks, Hemet, CA) | Outside |
| P-33-005700 | N/A | Historic Building | 1983 (Cecelia Foulkes, Riverside County Historical Commission) | Outside |
| P-33-005701 | N/A | Historic Building | 1983 (Cecelia Foulkes, Riverside County Historical Commission) | Outside |
| P-33-005702 | N/A | Historic Building | 1983 (Cecelia Foulkes, Riverside County Historical Commission) | Outside |
| P-33-005703 | N/A | Historic Building | 1983 (Cecelia Foulkes, Riverside County Historical Commission) | Outside |
| P-33-005704 | N/A | Historic Building | 1983 (Cecelia Foulkes, Riverside County Historical Commission) | Outside |
| P-33-005706 | N/A | Historic Building | 1983 (Cecelia Foulkes, Riverside County Historical Commission);<br>2012 (Scott Kremkau, Statistical Research, Inc.) | Outside |
| P-33-005709 | N/A | Historic Building | 1982 (Cecelia Foulkes, Riverside County Historical Commission) | Outside |

| Primary Number | Trinomial | Resource Type/Description | Recorder(s) and Year(s) | Relationship to APE |
|---|---|---|---|---|
| P-33-009498 | N/A | Historic Structure | 1966 (S. Ashkar, Jones & Stokes);<br>2003 (Carrie Chasteen, Myra L. Frank & Associates);<br>2005 (Christeen Taniguchi, Galvin & Associates);<br>2009 (S. Wilson and K. Chimel, ICF Jones & Stokes);<br>2012 (Scott Kremkau, Statistical Research, Inc.);<br>2015 (T. Baurley and J.M. Sanka, L&L Environmental, Inc.);<br>2016 (Daneil Leonard, HDR);<br>2017 (P. Moloney, R. Elder, W. Blodgett, Applied EarthWorks, Inc.) | Outside |
| P-33-012491 | N/A | Prehistoric Isolate (pottery sherd) | 2003 (Djuana Patterson and James Brock) | Outside |
| P-33-012492 | N/A | Prehistoric Isolate (pottery sherd) | 2003 (Djuana Patterson and James Brock) | Outside |
| P-33-017255 | N/A | Historic Building | 2008 (Daniel Ballester, CRM TECH) | Outside |
| P-33-020839 | CA-RIV-010763 | Historic Site | 2012 (Patrick Stanton, Statistical Research, Inc.) | Outside |
| P-33-020900 | CA-RIV-010824 | Historic Structure | 2012 (Patrick Stanton, Statistical Research, Inc.) | Outside |
| P-33-020901 | CA-RIV-010825 | Historic Site | 2012 (Patrick Stanton, Statistical Research, Inc.) | Outside |
| P-33-020919 | CA-RIV-010844 | Historic Site | 2012 (Patrick Stanton, Statistical Research, Inc.) | Outside |
| P-33-020920 | CA-RIV-010845 | Historic Site | 2012 (Patrick Stanton, Statistical Research, Inc.) | Outside |
| P-33-023896 | N/A | Historic Site and Building | 2014 (Riordan Goodwin, Casey Tibbet, LSA Associates, Inc.) | Outside |
| P-33-023987 | N/A | Historic Structure | 2014 (Jenna Kavhour, GPA Consulting) | Outside |
| P-33-023988 | N/A | Historic Structure | 2014 (Jenna Kavhour, GPA Consulting) | Outside |
| P-33-026685 | CA-RIV-012576 | Historic Site | 2016 (Amy Dunay, Dokken Engineering) | Outside |
| P-33-028086 | N/A | Historic Structure | 2014 (Evan Mills, Applied EarthWorks) | Outside |
| P-33-028087 | N/A | Historic Structure | 2014 (Evan Mills, Applied EarthWorks) | Outside |
| P-33-028088 | N/A | Historic Structure | 2014 (Evan Mills, Applied EarthWorks) | Outside |
| P-33-028820 | CA-RIV-012930 | Historic Site | 2019 (Jillian L. Hahnlen, Brian F. Smith & Associates, Inc.) | Outside |

## 4.4 Native American Outreach

Rincon contacted the NAHC on April 24, 2020 to request a search of the SLF for the APE. As part of the request, Rincon asked the NAHC to provide a list of Native American groups and/or individuals culturally affiliated with the area who may have knowledge of cultural resources in the APE or within its vicinity. The NAHC responded on April 29, 2020 stating that the results of the SLF search were negative. As requested, the NAHC provided a list of 23 Native American contacts who may have knowledge of cultural resources in the vicinity of the project area. Rincon prepared letters to each of the NAHC-listed contacts, requesting they contact Rincon if they have knowledge of any Native American cultural resources within or immediately adjacent to the project area. Due to the COVID-19 pandemic and statewide closure of offices, the letters were sent via email on May 8, 2020. Follow-up outreach attempts (by phone or email) were made to each contact throughout May and June 2020 (Appendix B).

To date, Rincon has received responses via a combination of telephone and email from the following tribes in response to the emailed letters: Jamul Indian Village, La Posta Band of Diegueño Mission Indians, Quechan Tribe of the Fort Yuma Reservation, Ramona Band of Cahuilla, Santa Rosa Band of Cahuilla Indians, and Viejas Band of Kumeyaay Indians. None of the tribes requested to formally consult on the project, nor did they offer any information regarding cultural resources in the vicinity of the project provided. Documentation of the consultation effort is included in Appendix B.

## 4.5 Local Interested Party Consultation

As part of Section 106 consultation, Rincon prepared and emailed letters to local interested parties on May 8, 2020 to request information pertaining to potential historic or other cultural resources located in or near the APE. Local parties included the County of Riverside Planning Department, the Coachella Valley Historical Society, Inc. and the Historical Society of Palm Desert. Due to COVID-19 considerations, no hard copy letters were mailed. Rincon received responses from all three parties in response to this outreach effort, summarized below.

Rincon received a response from the Historical Society of Palm Desert on May 10, 2020 stating that the undertaking is within a shallow aquifer area and noted it understood the undertaking may not require major excavation. The Historical Society of Palm Desert assigned the undertaking a low priority regarding potential cultural resource concerns because little new area may be disturbed. Rincon received a response from Coachella Valley Historical Society on May 11, 2020 stating the proposed undertaking is of no concern to the organization. In a telephone conversation conducted on May 15, 2020, the Riverside County Planning Department stated it is unaware of any potential cultural resource concerns associated with the proposed undertaking. Documentation of the outreach effort as described above, is included in Appendix C.

## 4.6 Historical Imagery Review

Rincon reviewed available historical aerial photographs to determine past land uses within the APE (NETRonline 1953-2016). Aerial imagery from 1953, 1972 and 1996 depict the APE as undeveloped. Aerial imagery from 2005 through 2016 depict the APE as it is today, developed with structures, tanks, compacted open areas for vehicle access, and a water blow off basin.

# 5 Field Survey

## 5.1 Methods

Rincon Archaeologist, Mark Strother, MA, RPA, conducted a pedestrian survey of the APE on April 30, 2020 by walking transects spaced no more than 10 meters apart. All exposed ground surfaces were visibly inspected for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, fire-affected rock), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics). Mr. Strother photographed all built environment features located in the APE and took notes describing their physical characteristics and construction to confirm that they do not date from the historic period.

## 5.2 Results

The APE is developed and contains structures, tanks, compacted gravel areas, a paved road and a water blow off basin (Figure 3 and Figure 4). Ground surface visibility throughout the APE ranged from 0 to 50 percent. Exposed soils consist of medium brown sandy loam, intermixed with gravel. No cultural resources were identified during the survey. As all built features in the APE were constructed after 1996, they were not formally evaluated as part of the current study.

**Figure 3 North-Facing View of the APE**

**Figure 4 South-Facing View of the APE**

# 6 Findings and Recommendations

Rincon prepared this cultural resources assessment to identify historic properties with the potential to be affected and/or historical resources with the potential to be impacted by the proposed IXTP 7991 Project, subject to CEQA and Section 106 of the NHPA. The assessment includes the delineation of the APE, searches of the CHRIS and NAHC SLF, Native American and local interested party outreach, background research, a field survey of the APE, and the preparation of this report.

The CHRIS search identified 25 previously conducted cultural resources studies within a 1.0-mile radius of the APE. Although one of these studies (RI-09081) includes a portion of the current APE, RI-09081 did not result in the identification of any cultural resources. The CHRIS search also identified 29 previously recorded cultural resources within a 1.0-mile radius of the APE. These resources include 27 historic period resources (sites, buildings, and structures) and two prehistoric isolates (pottery sherds), none of which are located within the current APE. The results of the NAHC SLF search requested by Rincon were negative. Additionally, outreach to 23 Native America tribal contacts and three local interested parties did not indicate the presence of cultural resources in the APE.

The background research conducted for this study indicated the built environment features in the APE were constructed after 1996 and the field survey confirmed they are contemporary buildings and structures. Due to their recent construction, a formal historical evaluation of these features was not completed, and as ubiquitous utilitarian structures, none of the built features in the APE appear to qualify for listing in the NRHP under Criteria Consideration G. The field survey conducted for this study did not identify any cultural resources in the APE.

Based on the results of this cultural resources assessment, no cultural resources were identified in the project's APE that will be impacted or adversely affected by the project. Therefore, Rincon recommends a finding of ***no impact to historical and archaeological resources*** under CEQA, and ***no effect to historic properties*** under Section 106 of the NHPA.

Rincon presents the following recommendation in case of unanticipated discovery of cultural resources during project development. The project is also required to adhere to regulations regarding the unanticipated discovery of human remains, detailed below.

## 6.1 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be eligible for the CRHR and/or NRHP, additional work such as data recovery excavation and Native American consultation and archaeological monitoring may be warranted to mitigate any significant impacts.

## 6.2 Unanticipated Discovery of Human Remains

If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an

unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a most likely descendant, who shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.

# 7 References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# Appendix A

CHRIS Search Summary Sheets

# Report List

| Report No. | Other IDs | Year | Author(s) | Title | Affiliation | Resources |
|---|---|---|---|---|---|---|
| RI-03245 | NADB-R - 1083836; Voided - MF-3477 | 1990 | David M. Van Horn, Laurie S. White, and Robert S. White | Cultural Resources Sensitivity Overview for the Coachella Valley Enterprise Zone | Achaeological Associates, Ltd. | 33-000135, 33-000148, 33-000676, 33-000795, 33-001634, 33-001637, 33-002982, 33-002983, 33-002984, 33-002985, 33-002986, 33-002987, 33-003438 |
| RI-03415 | NADB-R - 1084078; Voided - MF-3673 | 1991 | ROSEN, MARTIN | NEGATIVE ARCHAEOLOGICAL SURVEY REPORT: FOURTH ADDENDUM, 11-RIV-86, PM R2.9-R22.0, 11208, 179800; VICINITY OF AVENUE 81 TO VICINITY OF DILLON ROAD | CALTRANS DISTRICT 11, RIVERSIDE | |
| RI-03953 | NADB-R - 1084910; Other - TR 28216; Voided - MF-4324 | 1996 | BROCK, JAMES | A CULTURAL RESOURCES ASSESSMENT OF LOTS 5 AND 6, BLOCK 25 OF THE AMENDED MAP OF THE MECCA TOWNSITE, COUNTY OF RIVERSIDE, CALIFORNIA | ARCHAEOLOGICAL ADVISORY GROUP | |
| RI-04312 | NADB-R - 1085580; Voided - MF-4795 | 1999 | BROCK, JAMES | PHASE 1 CULTURAL RESOURCES ASSESSMENT FOR THE 13-ACRE SELF HELP HOUSING PROJECT, MECCA, RIVERSIDE COUNTY, CALIFORNIA. | ARCHAEOLOGICAL ADVISORY GROUP | |
| RI-04423 | NADB-R - 1085771; Submitter - 001021; Voided - MF-4932 | 2000 | BROCK, JAMES | PHASE I CULTURAL RESOURCES ASSESSMENT FOR THE PROPOSED VILLAS OSCAR ROMERO PROJECT, MECCA, RIVERSIDE COUNTY, CALIFORNIA | ARCHAEOLOGICAL ADVISORY GROUP | |
| RI-04680 | NADB-R - 1086042; Submitter - AAG Job No: 030305 | 2003 | BROCK, JAMES | PHASE I CULTURAL RESOURCES ASSESSMENT FOR TENTATIVE TRACT MAP NO. 31027, MECCA AREA OF UNINCORPORATED RIVERSIDE COUNTY, CALIFORNIA (APN'S 727-112-003, AND -10; PASEO DE LAS PALMAS PROJECT) | ARCHAEOLOGICAL ADVISORY GROUP | 33-012491, 33-012492 |
| RI-04772 | NADB-R - 1086134; Submitter - AAG Job No. 041026 | 2004 | BROCK, JAMES | PHASE I CULTURAL RESOURCES ASSESSMENT FOR APN-727-112-015, MECCA AREA OF UNINCORPORATED RIVERSIDE COUNTY, CALIFORNIA (PASEO DE LOS HEROES II PROJECT) | ARCHAEOLOGICAL ADVISORY GROUP, Pioneertown, CA | |
| RI-05152 | NADB-R - 1086515 | 2005 | HUDLOW, SCOTT M. | A PHASE I CULTURAL RESOURCE SURVEY FOR GLOBAL PREMIERE, MECCA, RIVERSIDE COUNTY, CALIFORNIA | HUDLOW CULTURAL RESOURCE ASSOCIATES | |
| RI-05154 | NADB-R - 1086517 | 2004 | HUDLOW, SCOTT | A PHASE I CULTURAL RESOURCE SURVEY FOR GLOBAL PREMIERE, MECCA, RIVERSIDE COUNTY, CALIFORNIA | HUDLOW CULTURAL RESOURCE ASSOCIATES | |

## Report List

| Report No. | Other IDs | Year | Author(s) | Title | Affiliation | Resources |
|---|---|---|---|---|---|---|
| RI-06711 | NADB-R - 1088078; Submitter - JOB NO. 060410 | 2006 | BROCK, JAMES | PHASE I CULTURAL RESOURCES ASSESSMENT FOR TENTATIVE TRACT MAP NO. 34120, MECCA AREA OF UNINCORPORATED RIVERSIDE COUNTY, CALIFORNIA | ARCHAEOLOGICAL ADVISORY GROUP | |
| RI-07586 | | 2008 | Denniston, Elizabeth L., Vanessa Mirro, and David D. Earle | Phase I Cultural Resources Assessment of Approximately 4 miles for the Mecca Sewer Force Main Project Near the Community of Mecca, Unincorporated Riverside County, California | Applied EarthWorks, Inc. and Earle and Associates | 33-003438, 33-009498 |
| RI-07793 | Submitter - Contract No. 2223 | 2008 | Encarnacion, Dierdre, Daniel Ballester, and Laura H. Shaker | PHASE I ARCHAEOLOGICAL ASSESSMENT: SAN CRISTOBAL MIGRANT AGRICULTURAL WORKERS HOUSING, ASSESSORS PARCEL NO. 729-050-002, NEAR THE COMMUNITY OF MECCA, RIVERSIDE COUNTY, CALIFORNIA | CRM TECH | |
| RI-07930 | Submitter - CRM TECH Contract No. 2246A | 2008 | CRM TECH | Phase I Historical/Archeological Assessment: Mecca Master Plan (SP377), near the Community of Mecca, Riverside County, California | CRM TECH | 33-017254, 33-017255, 33-017256 |
| RI-08194 | | 2009 | Joan George, David Earle, and Vanessa Mirro | Phase I Cultural Resources Assessment for the LA Pena Housing Facility Water Supply Project Near Mecca, Riverside County, California | Applied Earthworks, Inc., Hemet, CA | 33-005699 |
| RI-08201 | | 2009 | Diedre Encarnacion, Daniel Ballester, and Laura H. Shaker | Identification and Evaluation of Historical Properties: Plaza La Esperanza Project | CRM TECH, Colton, CA | |
| RI-08386 | | 2010 | Joan George and Vanessa Mirro | Phase I Cultural Resources Assessment for the Lower Valley Irrigation System Expansion Project Near Mecca, Riverside County, California. | Applied EarthWorks, Inc. | 33-005707 |
| RI-08434 | | 2010 | Josh Smallwood | Letter Report: Cultural Resources Monitoring at Site CA-RIV-3438H (Historical Walters/Mecca Railroad Station) for Construction of the Mecca Sewer Force Main Project near Mecca, Riverside County, California. | Applied EarthWorks, Inc. | 33-003438 |
| RI-09081 | | 2014 | Bai "Tom Tang, Mariam Dahdul, Harry M. Quinn, and Daniel Ballester | Identification and Evaluation of Historic Properties: Desert Alliance for Community Empowerment, Sanitary Sewer and Agricultural Drainage Pipe and Domestic Pipe Improvement Project, near the Community of Mecca, Riverside County California | CRM TECH | |

## Report List

| Report No. | Other IDs | Year | Author(s) | Title | Affiliation | Resources |
|---|---|---|---|---|---|---|
| RI-09111 | | 2014 | Bai "Tom" Tang, Deirdre Encarnacion, Harry M. Quinn, and Daniel Ballester | Identification and Evaluation of Historic Properties: San Antonio del Desierto Disadvantaged Communities Sewer Extension, near the Community of Mecca, Riverside County, California | CRM TECH | |
| RI-09137 | | 2014 | Frances Segovia | Addendum to Cultural Resources Survey Results for the Moblie Home Park Paving Project in the Coachella Vallley in Unincorporated Areas of Riverside County: Project Location #1 (LSA Project No. RCT1306A) | LSA Associates | |
| RI-09139 | | 2014 | Frances Segovia | Cultural Resource Suevey Results for the Mobile Home Parks Paving Project in the Coachella Valley in Unincorporated Areas of Riverside County, California (LSA Project No. RCT1306) | LSA Associates Inc | 33-023894, 33-023896 |
| RI-09766 | | 2015 | Amy Dunay | Supplemental Historic Property Survey Report for the Avenue 66 Grade Separation Project | Dokken Engineering | |
| RI-09768 | CRM Tech Contract # 538 | 2000 | Bruce Love and Bai "Tom" Tang | Cultural Resource Element City of La Quinta General Plan | CRM Tech | |
| RI-10373 | | 2018 | Joan George and Kholood Abdo-Hintzman | PHASE I CULTURAL RESOURCE ASSESSMENT FOR THE DALE KILER ROAD WATER MAIN REPLACEMENT PROJECT, COMMUNITY OF MECCA, RIVERSIDE COUNTY, CALIFORNIA | Applied Earth Works, Inc. | |
| RI-10451 | | 2010 | Michael Mirro | Cultural Resources Records Search for Shot Points Located on Private Land for the U.S. Geological Survey (USGS) Salton Seismic Imaging Project (SSIP) | Applied EarthWorks, Inc. | 33-000056, 33-001117, 33-011637 |

## Resource List

| Primary No. | Trinomial | Other IDs | Type | Age | Attribute codes | Recorded by | Reports |
|---|---|---|---|---|---|---|---|
| P-33-003438 | CA-RIV-003438 | Other - SRI-14188;<br>Other - Mecca Station;<br>Other - MCI Site #1 | Site | Historic | AH02; AH03; AH04; AH05; AH07 | 1988 (Apple, R.M., T. Wahoff, K. Norwood, Dames & Moore);<br>1990 (Van Horn, D., Archaeological Associates Ltd.);<br>1999 (Ashkar, S., M. Avina, J. Doty, E. Prendergast);<br>2008 (Bouscaren, C., J. Coats, Applied EarthWorks, Inc.);<br>2012 (Scott Kremkau, SRI) | RI-02350, RI-03245, RI-04430, RI-07586, RI-08434 |
| P-33-005696 | | Other - Mecca Elementary School | Building | Historic | HP14; HP15 | 1983 (Cecelia Foulkes, Riverside County Historical Commission) | |
| P-33-005697 | | Other - La Conchita Café | Building | Historic | HP06 | 1983 (Cecelia Foulkes, Riv Co Historical Comm) | |
| P-33-005698 | | Other - Dr. Johnson's Office;<br>Other - Randall Ranch | Building | Historic | HP39 | 1983 (Cecelia Foulkes, Riv. Co. Historical Commision) | |
| P-33-005699 | | Other - Date Industry Birthplace;<br>PHI - Riv-043;<br>Other - U.S. Experimental Date Station;<br>Other - Ser. No. 33-2254-4 | Site | Historic | HP30 | 1973 (Point of Historical Interest Form, Sacramento, CA);<br>1983 (Cecelia Foulkes, Riverside County Historical Commission, Riverside, CA);<br>2009 (Joan George, Applied Earthworks, Hemet, CA) | RI-08194 |
| P-33-005700 | | Other - Holtby Myer's Home;<br>Other - Ser. No. 33-2254-5 | Building | Historic | HP02 | 1983 (Cecelia Foulkes, Riv. Co. Historical Comission) | |
| P-33-005701 | | Other - Low Chaparral;<br>Other - Helen Bell's Home;<br>Other - Ser. No. 33-2254-6 | Building | Historic | HP02 | 1983 (Cecelia Foulkes, Riv. Co. Historical Comm.) | |
| P-33-005702 | | Other - Wes McGrath House;<br>Other - Ser. No. 33-2254-7 | Building | Historic | HP02 | 1983 (Cecelia Foulkes, Riv. Co. Historical Comm) | |
| P-33-005703 | | Other - Frank's Market;<br>Other - Hill's Hay Barn | Building | Historic | HP39 | 1983 (Cecelia Foulkes, Riv. Co. Hisotrical Commission) | |
| P-33-005704 | | Other - Reed's Home | Building | Historic | HP02 | 1983 (Cecelia Foulkes, Riv Co Historical Comm) | |
| P-33-005706 | | Other - Old Southern Pacific Water Tank;<br>Other - Southern Pacific Water Tank;<br>Other - SRI-14186 | Building | Historic | HP39 | 1983 (C. Foulkes, Riverside County Historical Commission);<br>2012 (Scott Kremkau, SRI) | |

## Resource List

| Primary No. | Trinomial | Other IDs | Type | Age | Attribute codes | Recorded by | Reports |
|---|---|---|---|---|---|---|---|
| P-33-005709 | | Other - Mecca Park | Building | Historic | HP39 | 1982 (C. Faulkes, Riverside County Historical Commission) | |
| P-33-009498 | CA-RIV-006381 | Other - Union Pacific Railroad, Southern Pacific Railroad;<br>Other - C-Los Angeles-A-1;<br>Other - UPRR, segment near Dillon Road and Grapefruit Blvd.;<br>Other - SRI-5670;<br>Other - S.P., L.A. and Salt Lake Railroad;<br>Other - CA-IMP-3424H | Structure | Historic | HP39 | 1966 (Ashkar, S., Jones & Stokes);<br>2003 (Carrie Chasteen, Myra L. Frank & Associates);<br>2005 (Taniguchi, Christeen, Galvin & Associates);<br>2009 (Wilson, S. and K. Chimel, ICF Jones & Stokes);<br>2012 (Scott Kremkau, SRI);<br>2015 (T. Baurley and J.M. Sanka, L&L Environmental, Inc.);<br>2016 (Daneil Leonard, HDR);<br>2017 (P. Moloney, R. Elder, W. Blodgett, Applied EarthWorks, Inc.) | RI-04427, RI-04430, RI-04771, RI-05452, RI-06258, RI-06259, RI-06583, RI-06615, RI-06707, RI-07288, RI-07586, RI-07770, RI-07802, RI-07970, RI-08012, RI-08374, RI-08491, RI-08538, RI-08581, RI-08844, RI-08861, RI-09151, RI-09167, RI-09734, RI-10040, RI-10374, RI-10435, RI-10652, RI-10798, RI-10806 |
| P-33-012491 | | Other - AAG Job No. 030305-Iso I | Other | Prehistoric | AP03 | 2003 (Djuana Patterson and James Brock, n/a) | RI-04680 |
| P-33-012492 | | Other - AAG Job No. 030305-Iso 2 | Other | Prehistoric | AP03 | 2003 (Djuana Patterson, James Brock, N/A) | RI-04680 |
| P-33-017255 | | Other - 91-748 Avenue 66;<br>Other - CRM TECH 2246-2 | Building | Historic | HP03 | 2008 (Ballester, Daniel, CRM TECH) | RI-07930 |
| P-33-020839 | CA-RIV-010763 | Other - SRI-12483 | Site | Historic | AH07; HP37 | 2012 (Patrick Stanton, Statistical Research, Inc.) | |
| P-33-020900 | CA-RIV-010824 | Other - SRI-12452 | | Historic | | 2012 (Patrick Stanton, Statistical Research, Inc.) | |
| P-33-020901 | CA-RIV-010825 | Other - SRI-12454 | Site | Historic | AH07; HP37 | 2012 (Patrick Stanton, Statistical Research, Inc.) | |
| P-33-020919 | CA-RIV-010844 | Other - SRI-14191 | Site | Historic | AH16; HP39 | 2012 (Patrick Stanton, Statistical Research, Inc.) | |
| P-33-020920 | CA-RIV-010845 | Other - SRI-14192 | Site | Historic | AH07; HP37 | 2012 (Patrick Stanton, Statistical Research, Inc.) | |
| P-33-023896 | | Other - U.S. Experimental Data Station/ Holtby Myer's Home | Building, Site | Historic | HP02; HP33 | 2014 (Riordan Goodwin, Casey Tibbet, LSA Associates, Inc.) | RI-09139 |
| P-33-023987 | | Other - SR 195;<br>Other - Grapefruit Boulevard;<br>Other - Avenue 66 west of SR 111 | Structure | Historic | HP37 | 2014 (Jenna Kavhour, GPA Consulting) | |

## Resource List

| Primary No. | Trinomial | Other IDs | Type | Age | Attribute codes | Recorded by | Reports |
|---|---|---|---|---|---|---|---|
| P-33-023988 | | Other - SR 111;<br>Other - Grapefruit Boulevard near SR 195;<br>Other - Avenue 66;<br>Other - APE Map Reference No. 2 | Structure | Historic | HP37 | 2014 (Jenna Kachour, GPA Consulting) | |
| P-33-026685 | CA-RIV-012576 | Other - Edna Cast Date Farm Complex;<br>Other - Palc Hands of Shali-Mart;<br>Other - Garden of the Setting Sun Date Farm | Site | Historic | AH02; AH03 | 2016 (Amy Dunay, Dokken Engineering) | |
| P-33-028086 | | Other - Segment of 7th Street | Structure | Historic | HP37 | 2014 (Evan Mills, Applied EarthWorks) | |
| P-33-028087 | | Other - Segment of 6th Street | Structure | Historic | HP37 | 2014 (Evan Mills, Applied EarthWorks) | |
| P-33-028088 | | Other - Segment of Dale Kiler Road | Structure | Historic | HP37 | 2014 (Evan Mills, Applied EarthWorks) | |
| P-33-028820 | CA-RIV-012930 | Other - Family Dollar Mecca Temp-1 | Site | Historic | AH04 | 2019 (Jillian L. Hahnlen, Brian F. Smith & Associates, Inc.) | |

# Appendix B

SLF Search Results and Native American Outreach Documentation

# NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
**Laura Miranda**
*Luiseño*

VICE CHAIRPERSON
**Reginald Pagaling**
*Chumash*

SECRETARY
**Merri Lopez-Keifer**
*Luiseño*

PARLIAMENTARIAN
**Russell Attebery**
*Karuk*

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**Marshall McKay**
*Wintun*

COMMISSIONER
**William Mungary**
*Paiute/White Mountain Apache*

COMMISSIONER
[**Vacant**]

COMMISSIONER
**Julie Tumamait-Stenslie**
*Chumash*

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
**Christina Snider**
*Pomo*

**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

April 29, 2020

Rachel Perzel
Rincon Consultants, Inc.

Via Email to: rperzel@rinconconsultants.com

**Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Coachella Valley Water District Ion Exchange Treatment Plant 7991 Construction Project, Riverside County**

Dear Ms. Perzel:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

*Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.*

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measures.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
*Cultural Resources Analyst*

Attachment

**Native American Heritage Commission**
**Tribal Consultation List**
**Riverside County**
**4/29/2020**

***Agua Caliente Band of Cahuilla Indians***
Jeff Grubbe, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919

***Augustine Band of Cahuilla Mission Indians***
Amanda Vance, Chairperson
P.O. Box 846 — Cahuilla
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com

***Cabazon Band of Mission Indians***
Doug Welmas, Chairperson
84-245 Indio Springs Parkway — Cahuilla
Indio, CA, 92203
Phone: (760) 342 - 2593
Fax: (760) 347-7880
jstapp@cabazonindians-nsn.gov

***Cahuilla Band of Indians***
Daniel Salgado, Chairperson
52701 U.S. Highway 371 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net

***Campo Band of Diegueno Mission Indians***
Ralph Goff, Chairperson
36190 Church Road, Suite 1 — Diegueno
Campo, CA, 91906
Phone: (619) 478 - 9046
Fax: (619) 478-5818
rgoff@campo-nsn.gov

***Ewiiaapaayp Band of Kumeyaay Indians***
Michael Garcia, Vice Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
michaelg@leaningrock.net

***Ewiiaapaayp Band of Kumeyaay Indians***
Robert Pinto, Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
wmicklin@leaningrock.net

***Jamul Indian Village***
Lisa Cumper, Tribal Historic Preservation Officer
P.O. Box 612 — Diegueno
Jamul, CA, 91935
Phone: (619) 669 - 4855
lcumper@jiv-nsn.gov

***Jamul Indian Village***
Erica Pinto, Chairperson
P.O. Box 612 — Diegueno
Jamul, CA, 91935
Phone: (619) 669 - 4785
Fax: (619) 669-4817
epinto@jiv-nsn.gov

***La Posta Band of Diegueno Mission Indians***
Gwendolyn Parada, Chairperson
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
LP13boots@aol.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Coachella Valley Water District Ion Exchange Treatment Plant 7991 Construction Project, Riverside County.

***La Posta Band of Diegueno Mission Indians***
Javaughn Miller, Tribal Administrator
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
jmiller@LPtribe.net

***Los Coyotes Band of Cahuilla and Cupeño Indians***
Shane Chapparosa, Chairperson
P.O. Box 189 — Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712

***Manzanita Band of Kumeyaay Nation***
Angela Elliott Santos, Chairperson
P.O. Box 1302 — Diegueno
Boulevard, CA, 91905
Phone: (619) 766 - 4930
Fax: (619) 766-4957

***Mesa Grande Band of Diegueno Mission Indians***
Michael Linton, Chairperson
P.O Box 270 — Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 782 - 3818
Fax: (760) 782-9092
mesagrandeband@msn.com

***Morongo Band of Mission Indians***
Robert Martin, Chairperson
12700 Pumarra Road — Cahuilla, Serrano
Banning, CA, 92220
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

***Quechan Tribe of the Fort Yuma Reservation***
Jill McCormick, Historic Preservation Officer
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com

***Ramona Band of Cahuilla***
Joseph Hamilton, Chairperson
P.O. Box 391670 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
admin@ramona-nsn.gov

***Santa Rosa Band of Cahuilla Indians***
Steven Estrada, Chairperson
P.O. Box 391820 — Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
mflaxbeard@santarosacahuilla-nsn.gov

***Soboba Band of Luiseno Indians***
Scott Cozart, Chairperson
P. O. Box 487 — Cahuilla, Luiseno
San Jacinto, CA, 92583
Phone: (951) 654 - 2765
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

***Sycuan Band of the Kumeyaay Nation***
Cody Martinez, Chairperson
1 Kwaaypaay Court — Kumeyaay
El Cajon, CA, 92019
Phone: (619) 445 - 2613
Fax: (619) 445-1927
ssilva@sycuan-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Coachella Valley Water District Ion Exchange Treatment Plant 7991 Construction Project, Riverside County.

***Torres-Martinez Desert Cahuilla Indians***
Thomas Tortez, Chairperson
P.O. Box 1160
Thermal, CA, 92274
Phone: (760) 397 - 0300
Fax: (760) 397-8146
tmchair@torresmartinez.org

Cahuilla

***Twenty-Nine Palms Band of Mission Indians***
Darrell Mike, Chairperson
46-200 Harrison Place
Coachella, CA, 92236
Phone: (760) 863 - 2444
Fax: (760) 863-2449
29chairman@29palmsbomi-nsn.gov

Chemehuevi

***Viejas Band of Kumeyaay Indians***
John Christman, Chairperson
1 Viejas Grade Road
Alpine, CA, 91901
Phone: (619) 445 - 3810
Fax: (619) 445-5337

Diegueno

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Coachella Valley Water District Ion Exchange Treatment Plant 7991 Construction Project, Riverside County.

## IXTP 7991 Project: Native Americans Consulted

| Tribal Contact | Rincon Outreach Efforts | Response to Outreach Efforts |
|---|---|---|
| ***Agua Caliente Band of Cahuilla Indians***<br>Jeff Grubbe, Chairperson<br>5401 Dinah Shore Drive<br>Palm Springs, CA, 92264<br>Phone: (760) 699 - 6800<br>Fax: (760) 699-6919<br>laviles@aguacaliente.net | **05/08/20:** Emailed outreach letter<br><br>**1/4/20:** Performed follow-up telephone call; left message requesting call back. | No response received |
| ***Augustine Band of Cahuilla Mission Indians***<br>Amanda Vance, Chairperson<br>P.O. Box 846<br>Coachella, CA, 92236<br>Phone: (760) 398 - 4722<br>Fax: (760) 369-7161<br>hhaines@augustinetribe.com | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Performed follow-up telephone call; left message requesting call back. | No response received |
| ***Cabazon Band of Mission Indians***<br>Doug Welmas, Chairperson<br>84-245 Indio Springs Parkway<br>Indio, CA, 92203<br>Phone: (760) 342 - 2593<br>Fax: (760) 347-7880<br>jstapp@cabazonindians-nsn.gov | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Performed follow-up telephone call; left message requesting call back. | No response received |
| ***Cahuilla Band of Indians***<br>Daniel Salgado, Chairperson<br>52701 U.S. Highway 371<br>Anza, CA, 92539<br>Phone: (951) 763 - 5549<br>Fax: (951) 763-2808<br>Chairman@cahuilla.net | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Performed follow-up telephone call; left message requesting call back. | No response received |
| ***Campo Band of Diegueno Mission Indians***<br>Ralph Goff, Chairperson<br>36190 Church Road, Suite 1<br>Campo, CA, 91906<br>Phone: (619) 478 - 9046<br>Fax: (619) 478-5818<br>rgoff@campo-nsn.gov | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Performed follow-up telephone call; left message requesting call back. | No response received |

| Tribal Contact | Rincon Outreach Efforts | Response to Outreach Efforts |
|---|---|---|
| ***Ewiiaapaayp Band of Kumeyaay Indians***<br>Michael Garcia, Vice Chairperson<br>4054 Willows Road<br>Alpine, CA, 91901<br>Phone: (619) 445 - 6315<br>Fax: (619) 445-9126<br>michaelg@leaningrock.net | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Performed follow-up telephone call; mailbox not set up and was unable to leave a message. | No response received |
| ***Ewiiaapaayp Band of Kumeyaay Indians***<br>Robert Pinto, Chairperson<br>4054 Willows Road<br>Alpine, CA, 91901<br>Phone: (619) 445 - 6315<br>Fax: (619) 445-9126<br>wmicklin@leaningrock.net | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Performed follow-up telephone call; mailbox not set up and was unable to leave a message. | No response received |
| ***Jamul Indian Village***<br>Lisa Cumper, Tribal Historic Preservation Officer<br>P.O. Box 612<br>Jamul, CA, 91935<br>Phone: (619) 669 - 4855<br>lcumper@jiv-nsn.gov | **05/08/20:** Emailed outreach letter | **05/08/20:** Erica M. Pinto responded to Rincon via email stating: "…we kindly defer to Cabazon, Agua Caliente, Morongo, 29 Palms Band, and other Tribes in the location." |
| ***Jamul Indian Village***<br>Erica Pinto, Chairperson<br>P.O. Box 612<br>Jamul, CA, 91935<br>Phone: (619) 669 - 4785<br>Fax: (619) 669-4817<br>epinto@jiv-nsn.gov | **05/08/20:** Emailed outreach letter | **05/08/20:** Erica M. Pinto responded to Rincon via email stating: "…we kindly defer to Cabazon, Agua Caliente, Morongo, 29 Palms Band, and other Tribes in the location." |
| ***La Posta Band of Diegueno Mission Indians***<br>Gwendolyn Parada, Chairperson<br>8 Crestwood Road<br>Boulevard, CA, 91905<br>Phone: (619) 478 - 2113<br>Fax: (619) 478-2125<br>LP13boots@aol.com | **05/08/20:** Emailed outreach letter | **6/12/2020:** Tribal office responded via email and stated that responses would come from Ms. Parada if there was comment on the project.<br><br>No further response received |
| ***La Posta Band of Diegueno Mission Indians***<br>Javaughn Miller, Tribal Administrator<br>8 Crestwood Road<br>Boulevard, CA, 91905<br>Phone: (619) 478 - 2113<br>Fax: (619) 478-2125<br>jmiller@LPtribe.net | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Conducted follow-up telephone call; tribal office stated that Javaughn Miller was no longer the tribal administrator; requested future notification letters be sent to Gwendolyn Parada; stated that response would come from Ms. Parada. | No response received |

| Tribal Contact | Rincon Outreach Efforts | Response to Outreach Efforts |
|---|---|---|
| ***Los Coyotes Band of Cahuilla and Cupeño Indians*** Shane Chapparosa, Chairperson<br>P.O. Box 189<br>Warner Springs, CA, 92086-0189<br>Phone: (760) 782 - 0711<br>Fax: (760) 782-0712 | **05/08/20:** Emailed outreach letter; email was returned undeliverable. Received kickback,<br><br>**06/11/20:** Performed follow-up call and spoke to receptionist; she requested that letter be sent to Jacob Norte, Director at jnorte2@gmail.com**.**<br><br>**06/11/20**: Sent email to Jacob Norte as requested. | No response received |
| ***Manzanita Band of Kumeyaay Nation***<br>Angela Elliott Santos, Chairperson<br>P.O. Box 1302<br>Boulevard, CA, 91905<br>Phone: (619) 766 - 4930<br>Fax: (619) 766-4957 | **05/08/20:** Email was not included on NAHC-provided list; conducted telephone call to obtain email address; call did not go through.<br><br>**06/11/20:** Same as above. | No response received |
| ***Mesa Grande Band of Diegueno Mission Indians***<br>Michael Linton, Chairperson<br>P.O Box 270<br>Santa Ysabel, CA, 92070<br>Phone: (760) 782 - 3818<br>Fax: (760) 782-9092<br>mesagrandeband@msn.com | **05/08/20:** Emailed outreach letter<br><br>**06/11/20:** Conducted follow-up telephone call; left message with Jamie requesting a call back. | No response received |
| ***Morongo Band of Mission Indians***<br>Robert Martin, Chairperson<br>12700 Pumarra Road<br>Banning, CA, 92220<br>Phone: (951) 849 - 8807<br>Fax: (951) 922-8146<br>dtorres@morongo-nsn.gov | **05/08/20:** Emailed outreach letter<br><br>**06/12/20:** Conducted follow-up telephone call; phone number provided changed or disconnected | No response received |
| ***Quechan Tribe of the Fort Yuma Reservation***<br>Jill McCormick, Historic Preservation Officer<br>P.O. Box 1899<br>Yuma, AZ, 85366<br>Phone: (760) 572 - 2423<br>historicpreservation@quechantribe.com | **05/08/20:** Emailed outreach letter | **5/11/20:** Rincon received email response stating that the tribe did not wish to comment and that they defer to local tribes, supporting their determinations regarding the project. |

| Tribal Contact | Rincon Outreach Efforts | Response to Outreach Efforts |
|---|---|---|
| ***Ramona Band of Cahuilla***<br>Joseph Hamilton, Chairperson<br>P.O. Box 391670<br>Anza, CA, 92539<br>Phone: (951) 763 - 4105<br>Fax: (951) 763-4325<br>admin@ramona-nsn.gov | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Emailed outreach letter to John Gomez, as requested. | **6/12/2020:** Rincon received an email from Susan Becker stating that outreach should be sent to John Gomez (jgomez@ramona-nsn.gov). She stated that offices are still closed due to executive order; however, the tribe is teleworking and the best way to contact is by email.<br><br>No further response received. |
| ***Santa Rosa Band of Cahuilla Indians***<br>Steven Estrada, Chairperson<br>P.O. Box 391820<br>Anza, CA, 92539<br>Phone: (951) 659 - 2700<br>Fax: (951) 659-2228<br>adminassist@santarosacahuilla-nsn.gov | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Conducted follow-up telephone call. | **6/12/20**: Spoke to Jamie; she stated that if there was no response to the letters/email then there is no response and the tribe has no comment on the project. |
| ***Soboba Band of Luiseno Indians***<br>Scott Cozart, Chairperson<br>P. O. Box 487<br>San Jacinto, CA, 92583<br>Phone: (951) 654 - 2765<br>Fax: (951) 654-4198<br>jontiveros@soboba-nsn.gov | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Conducted follow-up telephone call; no answer, no ability to leave message. | No response received |
| ***Sycuan Band of the Kumeyaay Nation***<br>Cody Martinez, Chairperson<br>1 Kwaaypaay Court<br>El Cajon, CA, 92019<br>Phone: (619) 445 - 2613<br>Fax: (619) 445-1927<br>ssilva@sycuan-nsn.gov | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Performed follow-up telephone call; left message requesting call back. | No response received |
| ***Torres-Martinez Desert Cahuilla Indians***<br>Thomas Tortez, Chairperson<br>P.O. Box 1160<br>Thermal, CA, 92274<br>Phone: (760) 397 - 0300<br>Fax: (760) 397-8146<br>tmchair@torresmartinez.org | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Conducted follow-up telephone call; no answer, no ability to leave message. | No response received |

| Tribal Contact | Rincon Outreach Efforts | Response to Outreach Efforts |
|---|---|---|
| ***Twenty-Nine Palms Band of Mission Indians***<br>Darrell Mike, Chairperson<br>46-200 Harrison Place<br>Coachella, CA, 92236<br>Phone: (760) 863 - 2444<br>Fax: (760) 863-2449<br>29chairman@29palmsbominsn.gov | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Conducted follow-up telephone call; spoke with Sara Bliss who stated that she would check on review status and send a follow up email. | No response received |
| ***Viejas Band of Kumeyaay Indians***<br>John Christman, Chairperson<br>1 Viejas Grade Road<br>Alpine, CA, 91901<br>Phone: (619) 445 - 3810<br>Fax: (619) 445-5337<br>*jchristman@viejas-nsn.gov* | **05/08/20:** Emailed outreach letter<br><br>**6/12/20:** Conducted follow-up telephone call; no answer, left message requesting call back. | **6/12/20:** Rincon received a telephone call from Rich who stated that he would review the letters and be in contact if they have comment(s) on the project.<br><br>No further response received |

SAMPLE LETTER

**Rincon Consultants, Inc.**

301 9th Street, Suite 109
Redlands, California 92374

909 253 0705 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

May 8, 2020

Viejas Band of Kumeyaay Indians
John Christman, Chairperson
1 Viejas Grade Road
Alpine, California 91901
Via email: jchristman@viejas-nsn.gov

**Subject: Cultural Resources Study for Ion Exchange Treatment Plant 7991 Construction Project, Unincorporated Riverside County, California**

Dear Chairperson Christman:

Rincon Consultants, Inc. (Rincon) was retained by Woodard & Curran on behalf of the Coachella Valley Water District to conduct a cultural resources study for the Ion Exchange Treatment Plant (IXTP) 7991 Construction Project (proposed undertaking), located in the unincorporated community of Mecca in Riverside County. The proposed undertaking will replace the existing IXTP 7991 with a new 1,800 to 2,000 gallon per minute adsorption treatment system, new sulfuric acid and caustic soda systems within new buildings on site, backwash pumps and piping, pre-filters, backwash tank, and demolition of the existing IXTP. Ground disturbance is anticipated to reach a maximum depth of 15 feet for booster suction cans. The attached map depicts the Area of Potential Effect (APE) that has been defined for the undertaking.

The purpose of this letter is to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by implementation of the proposed undertaking. On April 24, 2020, Rincon contacted the Native American Heritage Commission (NAHC) to request a Sacred Lands File (SLF) search of the area of the undertaking. Rincon received a response from the NAHC on May 1, 2020 stating the results of the SLF search were negative. Additionally, a California Historical Resources Information System records search at the Eastern Information Center and a cultural resource survey did not identify any Native American cultural resources within the project APE; although, two prehistoric isolates are located within a one-mile search radius.

If you or your organization has any knowledge or specific concerns regarding cultural resources in the project area, please respond by telephone at (213) 788-4842 x3011, or by email at kknabb@rinconconsultants.com. Please note, due to the circumstances surrounding COVID-19, we are submitting this letter digitally and will not be sending hard copies via U.S. mail. Thank you for your assistance.

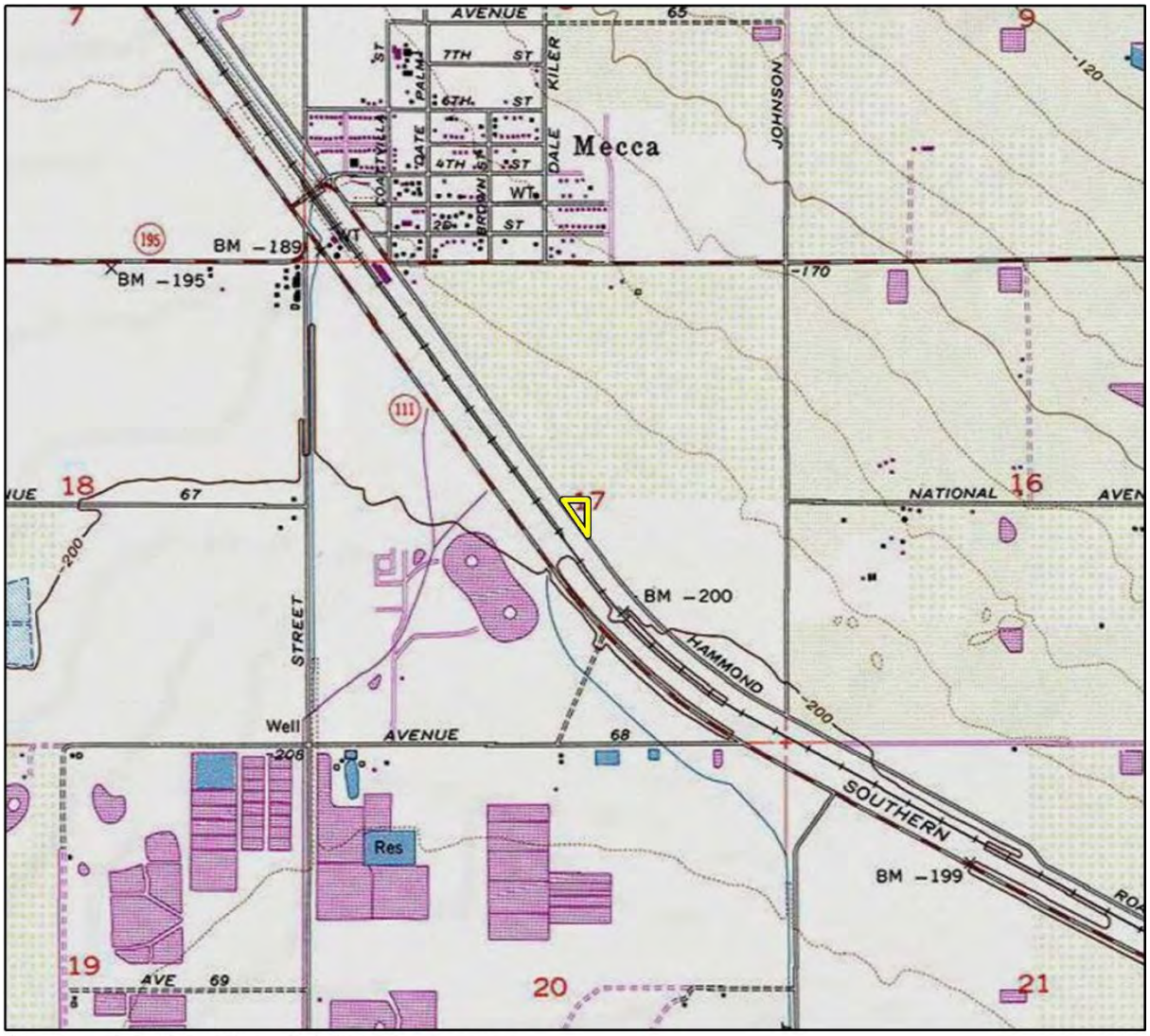
Sincerely,

**Rincon Consultants, Inc.**

Kyle A. Knabb

Kyle Knabb, PhD, RPA
Senior Archaeologist

*Attached: Project Area of Potential Effects Map*

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Project Location

0 1,000 2,000 Feet

N

## Courtney Montgomery

**From:** Erica M. Pinto <epinto@jiv-nsn.gov>
**Sent:** Friday, May 8, 2020 7:25 PM
**To:** Courtney Montgomery
**Cc:** Hannah Haas; Lisa Cumper; Carlene Chamberlain; Frances Amado; Stephen Rosene
**Subject:** [EXT] Re: Rincon Consultants Projects

**CAUTION:** This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .

Dear Courtney,

Thank you for the email. I have included my Tribal Historic Preservation Officer in the email. After carefully reviewing the location of the proposed project we kindly defer to Cabazon, Agua Caliente, Morongo, 29 Palms Band, and other Tribes in the location.

Thank you.
EMP

On Fri, May 8, 2020 at 7:18 PM Courtney Montgomery <cmontgomery@rinconconsultants.com> wrote:

> Dear Chairperson Pinto,
>
> Please find Rincon Consultants' Section 106 outreach letters attached. Due to COVID-19 we are submitting these letters digitally and will not be sending hard copies via U.S. Mail.
>
> **Courtney Montgomery, Archaeologist**
>
> Rincon Consultants, Inc.
>
> Environmental Scientists | Planners | Engineers
>
> 805-644-4455 x3005
>
> 559-558-5875 Direct
>
> rinconconsultants.com
>
> ***Note on COVID-19**: I'm available and working remotely to employ social distancing. Additionally, our work systems remain operational and we continue to perform work for our clients. Feel free to e-mail me or reach me directly at 209-662-3807.*

## Rachel Perzel

**From:** Quechan Historic Preservation <historicpreservation@quechantribe.com>
**Sent:** Monday, May 11, 2020 10:26 AM
**To:** Courtney Montgomery; Kyle Knabb
**Cc:** Hannah Haas
**Subject:** [EXT] RE: Rincon Consultants Projects - Ion Treatment Plant 7991 Construction Project

**CAUTION:** This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .

We do not wish to provide comments on this project. We defer to the more local Tribe(s) and support their determinations on the project.

---

**From:** Courtney Montgomery [mailto:cmontgomery@rinconconsultants.com]
**Sent:** Friday, May 8, 2020 7:14 PM
**To:** historicpreservation@quechantribe.com
**Cc:** Hannah Haas
**Subject:** Rincon Consultants Projects

Dear Historic Preservation Office McCormick,

Please find Rincon Consultants' Section 106 outreach letters attached. Due to COVID-19 we are submitting these letters digitally and will not be sending hard copies via U.S. Mail.

**Courtney Montgomery, Archaeologist**
Rincon Consultants, Inc.
Environmental Scientists | Planners | Engineers
805-644-4455 x3005
559-558-5875 Direct
rinconconsultants.com

***Note on COVID-19**: I'm available and working remotely to employ social distancing. Additionally, our work systems remain operational and we continue to perform work for our clients. Feel free to e-mail me or reach me directly at 209-662-3807.*

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Please consider the environment before printing this email.

---

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# Appendix C

Local Interested Party Outreach Documentation

**Table 1 Interested Parties Consulted**

| Local Group/ Government Contact | Rincon Coordination Efforts | Response to Coordination Efforts |
|---|---|---|
| County of Riverside<br>Planning Department<br>Valentina Lopez<br>4080 Lemon Street, 12th Floor<br>Riverside, CA 92501<br>(951) 955-8632<br>vslopez@rivco.org | **5/8/20:** Letter sent via email (due to COVID-19 response effort).<br>**5/15/2020:** Rincon conducted followed-up call to Ms. Lopez. | **5/15/2020:** Ms. Lopez stated that the County received the emailed letter and that the letter and project information were reviewed by County staff. She stated that the County had no cultural resource concerns regarding the proposed undertaking. |
| Coachella Valley Historical Society, Inc. (CVHS)<br>Attn: President of the Board<br>82616 Miles Avenue<br>Indio CA, 92201<br>(760) 342-6651<br>info@cvhm.org | **5/8/20:** Letter sent via email (due to COVID-19 response effort). | **5/10/2020:** Received email response from CVHS stating: *"This is a replacement of an ion exchange Treatment Facility. It ranges between -190' and -200', is well within the shallow aquafer area. However, this project may not require major excavation, though a few pipeline trenches may be needed. This project id given a low priority because little new area may be disturbed, however, if a monitor is in the area, they should give it a look."* |
| Historical Society of Palm Desert (HSPD)<br>P.O. Box 77<br>Att: Brett Romer, Past President<br>Palm Desert CA, 92261-0077<br>(760) 346-6588<br>Info.hspd@verizon.net<br>Cc: hmquinn@hotmail.com | **5/8/20:** Letter sent via email (due to COVID-19 response effort). | **5/11/2020:** Received email response from HSPD stating that the proposed undertaking is of no concern to the organization. |

Rincon Consultants, Inc.

301 9th Street, Suite 109
Redlands, California 92374

909 253 0705 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

May 8, 2020
Rincon Project No: 20-09339

County of Riverside Planning Department
Att: Valentina Lopez
4080 Lemon Street, 12th Floor
Riverside, CA 92501
Via email: vslopez@rivco.org

**Subject: Interested Party Consultation for the Ion Exchange Treatment Plant 7991 Construction Project, Unincorporated Riverside County, California**

Dear Ms. Lopez:

Rincon Consultants, Inc. (Rincon) was retained by Woodard & Curran on behalf of the Coachella Valley Water District to perform a Cultural Resources Study for the Coachella Valley Water District's Ion Exchange Treatment Plant 7991 Construction Project, located on an approximately 1-acre site south of the unincorporated Riverside County community of Mecca, California (proposed undertaking). The proposed undertaking involves the demolition of the site's existing 1,100-gallon per minute (gpm) ion exchange treatment system and its replacement with an 1,800- to 2,000-gpm treatment system. The undertaking will additionally consist of the reuse of the existing sodium hypochlorite system and the replacement of sulfuric acid and caustic soda systems with new systems in new buildings/enclosures on site.

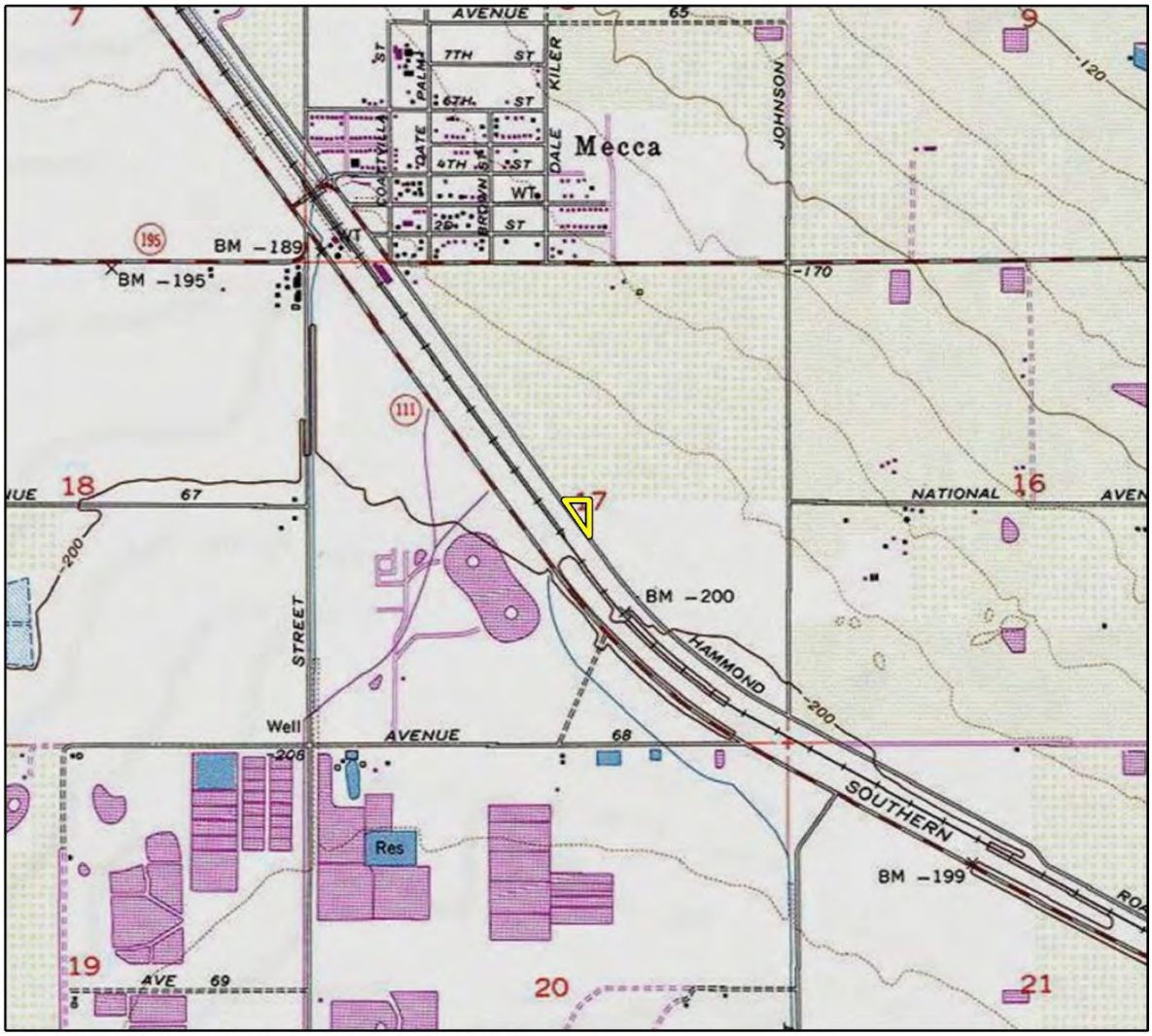
As a component of the Cultural Resources Study, in compliance with Section 106 of the National Historic Preservation Act (Section 106), Rincon is consulting interested parties to request input on potential or known historic resources or other cultural resources in the vicinity of the undertaking. In conformance with Section 106, we are in the initial phase, "identify[ing] historic properties potentially affected by the undertaking"[1] and are writing to provide you with an opportunity to be involved in the Section 106 process as a consulting party. A project location map is enclosed with this letter for your reference. Note, due to the circumstances surrounding COVID-19, we are submitting this letter digitally and will not be sending hard copies via U.S. mail. If you or your organization/agency has any knowledge of, or specific concerns regarding cultural resources in the area of the undertaking, please respond by telephone at 805-644-4455 ext. 138 or by email to rperzel@rinconconsultants.com. Thank you for your assistance.

Sincerely,
**Rincon Consultants, Inc.**

Rachel Perzel, MA
Architectural Historian

Enclosure: Project Location Map

[1] 36 Code of Federal Regulations Part 880.1 a

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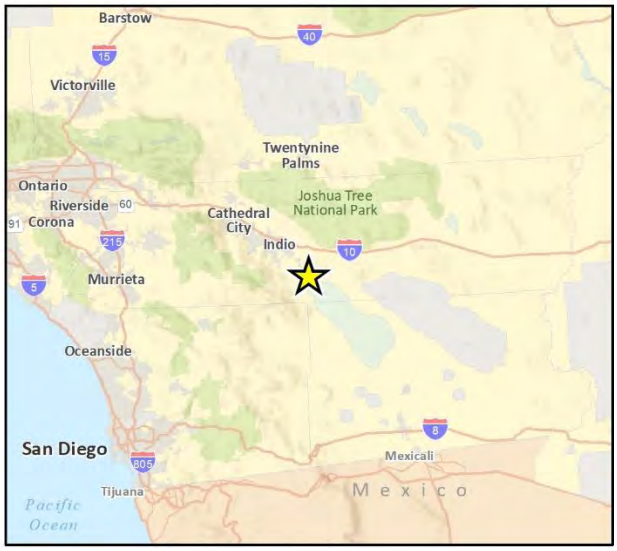
Project Location

0 1,000 2,000 Feet

N



Rincon Consultants, Inc.

301 9th Street, Suite 109
Redlands, California 92374

909 253 0705 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

May 8, 2020
Rincon Project No: 20-09339

Coachella Valley Historical Society, Inc.
Attn: President of the Board
82616 Miles Avenue
Indio CA, 92201
Via email: info@cvhm.org

**Subject: Interested Party Consultation for the Ion Exchange Treatment Plant 7991 Construction Project, Unincorporated Riverside County, California**

Dear President of the Board:
Rincon Consultants, Inc. (Rincon) was retained by Woodard & Curran on behalf of the Coachella Valley Water District to perform a Cultural Resources Study for the Coachella Valley Water District's Ion Exchange Treatment Plant 7991 Construction Project, located on an approximately 1-acre site south of the unincorporated Riverside County community of Mecca, California (proposed undertaking). The proposed undertaking involves the demolition of the site's existing 1,100-gallon per minute (gpm) ion exchange treatment system and its replacement with an 1,800- to 2,000-gpm treatment system. The undertaking will additionally consist of the reuse of the existing sodium hypochlorite system and the replacement of sulfuric acid and caustic soda systems with new systems in new buildings/enclosures on site.

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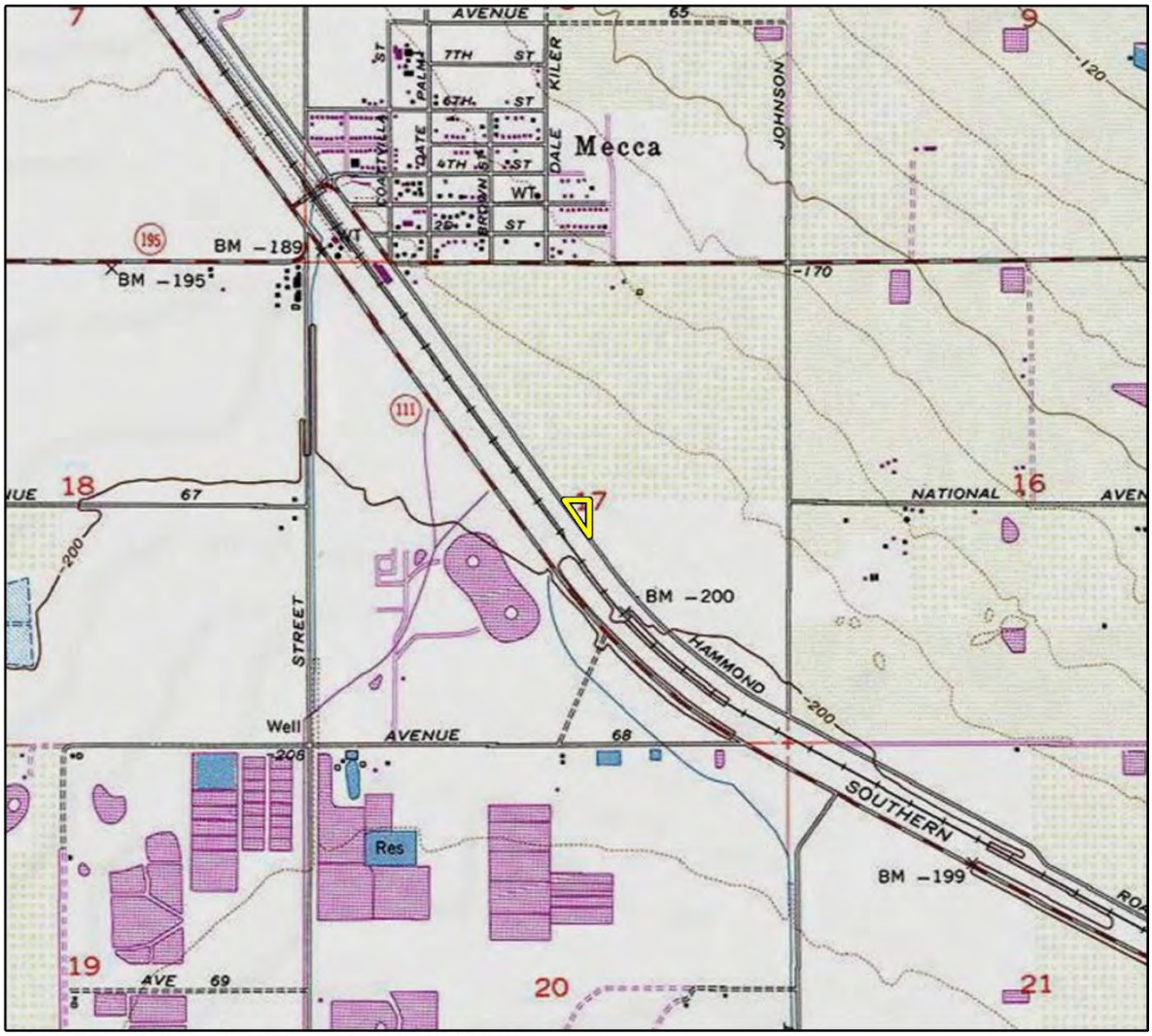
Sincerely,
**Rincon Consultants, Inc.**

Rachel Perzel, MA
Architectural Historian

Enclosure: Project Location Map

[1] 36 Code of Federal Regulations Part 880.1 a

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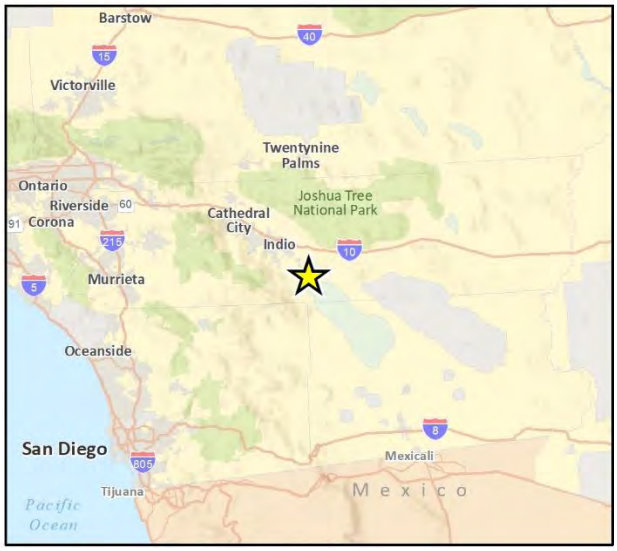
Project Location

0 1,000 2,000 Feet

N



Rincon Consultants, Inc.

301 9th Street, Suite 109
Redlands, California 92374

909 253 0705 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

May 8, 2020
Rincon Project No: 20-09339

Historical Society of Palm Desert
P.O. Box 77
Att: Brett Romer, Past President
Palm Desert CA, 92261-0077
Via email: Info.hspd@verizon.net Cc: hmquinn@hotmail.com

**Subject: Interested Party Consultation for the Ion Exchange Treatment Plant 7991 Construction Project, Unincorporated Riverside County, California**

Dear Mr. Romer:
Rincon Consultants, Inc. (Rincon) was retained by Woodard & Curran on behalf of the Coachella Valley Water District to perform a Cultural Resources Study for the Coachella Valley Water District's Ion Exchange Treatment Plant 7991 Construction Project, located on an approximately 1-acre site south of the unincorporated Riverside County community of Mecca, California (proposed undertaking). The proposed undertaking involves the demolition of the site's existing 1,100-gallon per minute (gpm) ion exchange treatment system and its replacement with an 1,800- to 2,000-gpm treatment system. The undertaking will additionally consist of the reuse of the existing sodium hypochlorite system and the replacement of sulfuric acid and caustic soda systems with new systems in new buildings/enclosures on site.

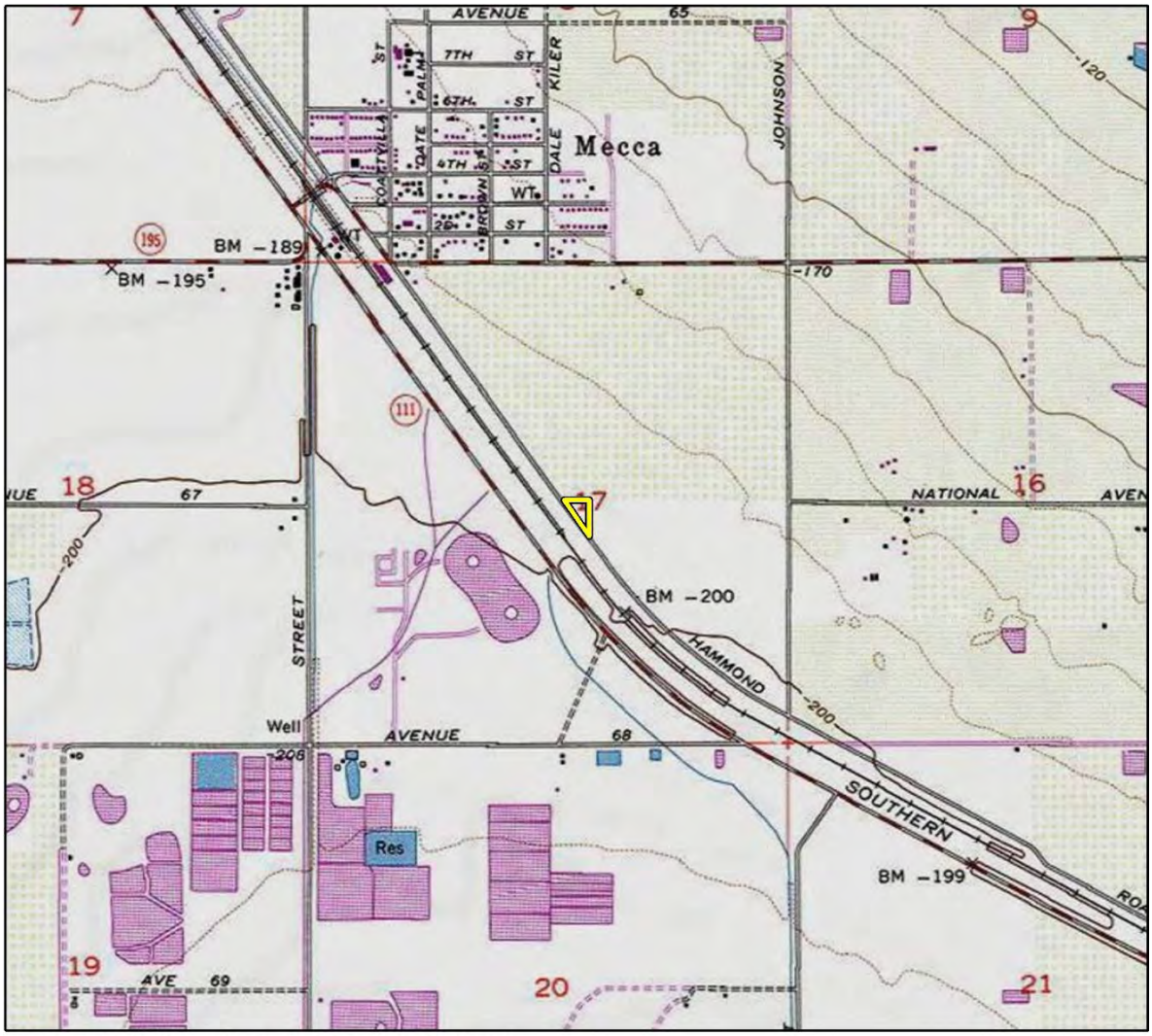
As a component of the Cultural Resources Study, in compliance with Section 106 of the National Historic Preservation Act (Section 106), Rincon is consulting interested parties to request input on potential or known historic resources or other cultural resources in the vicinity of the undertaking. In conformance with Section 106, we are in the initial phase, "identify[ing] historic properties potentially affected by the undertaking"[1] and are writing to provide you with an opportunity to be involved in the Section 106 process as a consulting party. A project location map is enclosed with this letter for your reference. Note, due to the circumstances surrounding COVID-19, we are submitting this letter digitally and will not be sending hard copies via U.S. mail. If you or your organization/agency has any knowledge of, or specific concerns regarding cultural resources in the area of the undertaking, please respond by telephone at 805-644-4455 ext. 138 or by email to rperzel@rinconconsultants.com. Thank you for your assistance.

Sincerely,
**Rincon Consultants, Inc.**

Rachel Perzel, MA
Architectural Historian

Enclosure: Project Location Map

[1] 36 Code of Federal Regulations Part 880.1 a

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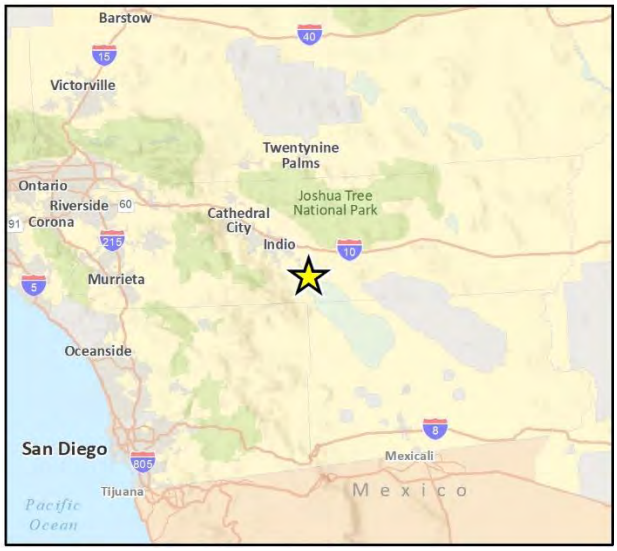
Project Location

0 1,000 2,000 Feet

N



## Rachel Perzel

**From:** Janice <janice@cvhm.org>
**Sent:** Monday, May 11, 2020 11:43 AM
**To:** Rachel Perzel
**Subject:** [EXT] RE: Dale Kiler Phase 1 and 2 Project

**CAUTION:** This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .

*Hi Rachel,*

*I forwarded your emails to our Board President and she responded that none of these areas (4 emails) concern us in any way. Thanks for checking!*

*Regards,*

*Janice Woodside*
*CVHM Office Manager*
*760-342-6651*

---

**From:** Rachel Perzel <rperzel@rinconconsultants.com>
**Sent:** Friday, May 8, 2020 6:13 PM
**To:** info@cvhm.org
**Subject:** FW: Dale Kiler Phase 1 and 2 Project

Good Afternoon,
Please see the attached outreach letter regarding the Dale Kiler Phase 1 and 2 Project, in Riverside County.
If you are aware of any potential cultural resource concerns that you would like to discuss in relation to the proposed project, please feel free to reach out any time.
Thank you and have a nice weekend.

**Rachel Beth Perzel, Architectural Historian**
Rincon Consultants, Inc.
Environmental Scientists | Planners | Engineers
805-644-4455 x 138
732-233-3997 Mobile
rinconconsultants.com

Note on COVID-19: I'm available and working remotely to employ social distancing.
Additionally, our work systems remain operational and we continue to perform work for our clients.
Feel free to e-mail me or reach me directly at 805-947-4817.

# SITE REVIEWS
# FOR
# RINCON CONSULTANTS, INC.

**By**
**Harry M. Quinn**
**For**
**The Historical Society of Palm Desert (HSPD)**

One of the most important things controlling the location and size of a Desert Cahuilla village was a usable water source. Water sources appear to have been limited to three types, lake water when Holocene Lake Cahuilla was present and still fresh, springs both when the lake was present and after the lake dried up, and hand dug wells excavated into the lake bed after the lake had dried up. The hand dug wells were mainly located within the old lakebed region after the lake had dried up and most were probably charged by lake waters, the well at Kavinish (Pozo Hondo) being one of the few exceptions.

Miller (1957, p. 248) shows when full, Ancient Lake Cahuilla had a height of about 40-feet above sea level. Based on this elevation, all four of the projects are within the old lakebed. The Cahuilla living along the lakes shore followed it down as it evaporated until it became too saline for domestic use. At any lake stand some people may have been camping along the shoreline.

By some process, fresh water was stored in some of the subsurface sand lenses and the Cahuilla were able to dig wells into these sand aquifers after the lake had receded to develop villages withing the lower portion of the valley. The villages of Torres and Martinez were developed in this manner.

## PROJECTS

All four of these projects are replacement/expansion projects, which means that most of the areas involved have already been disturbed. However, these earlier projects were probably done before Environmental Monitoring was required. If so, these areas have not been properly monitored/surveyed.

1. Dale Kiler__Rincon.

This is a pipeline replacement within the community of Mecca. It is well down in the old lakebed, ranging from -150’ to -190’ so may be within the shallow aquifer area. The new trenching may not be a perfect match to the old one so some new areas may be exposed. This area is considered to have a chance to contain unknow archaeological sites and periodic monitoring is recommended.

2. North Shore Project.

This is another pipeline replacement, connecting to the above project. In runs from +10’ to -200’. Only the extreme west end of this project is within the central portion of the basin. Again,

this new trenching may not follow the old exactly so some new areas may be exposed. The western end of this project is considered to have a chance to contain unknown archaeological sites and periodic monitoring is recommended.

3. Outreach – IXTP 7991Project.

This is a replacement of an ion exchange Treatment Facility. It ranges between -190' and -200', is well within the shallow aquafer area. However, this project may not require major excavation, though a few pipeline trenches may be needed. This project id given a low priority because little new area may be disturbed, however, if a monitor is in the area, they should give it a look.

4. Tank 7102-2 Project.

This is the replacement of an existing Water Tank Facility. It ranges between 0' to +10'. This is well out of the lower valley area and is given a low priority. Again, if a monitor is in the area, they could give it a look.

## PALEONTOLOGY

While none of the excavations should pass through the lake beds, the Ancient Lake Cahuilla Lake beds are not old enough to be considered as fossil beds. However, some interesting freshwater remains may be encountered, both invertebrate and vertebrate.

## REFERENCES

Miller, William J, 1957, CALIFORNIA THROUGH THE AGES, THE GEOLOGIC STORY OF A GREAT STATE., WESTERNLORE PRESS, LOS ANGELES, CALIFORNIA.

# APPENDIX E: USDA FORM RD 2006-0038: RURAL DEVELOPMENT ENVIRONMENTAL JUSTICE AND CIVIL RIGHTS IMPACT ANALYSIS CERTIFICATION

Form RD 2006-38
(Rev. 07-07)

Rural Development
Environmental Justice (EJ) and Civil Rights Impact Analysis (CRIA)
Certification

1 . Applicant's name and proposed project description: Coachella Valley Water District;Replace an existing ion exchange treatment plant with a new 2,000 GPM absorption treatment sys

2. Rural Development's loan/grant program/guarantee or other Agency action: Water and Environmental Program; Water & Waste Disposal Loan and Grants.

3. ☑ Attach a map of the proposal's area of effect identifying location or EJ populations, location of the proposal, area of impact or

☐ Attach results of EJ analysis from the Environmental Protection Agency's (EPAs) EnviroMapper with proposed project location and impact footprint delineated.

4. Does the applicant's proposal or Agency action directly, indirectly or cumulatively affect the quality and/or level of services provided to the community?
☑ Yes ☐ No ☐ N/A

5. Is the applicant's proposal or Agency action likely to result in a change in the current land use patterns (types of land use, development densities, etc)?
☐ Yes ☑ No ☐ N/A

6. Does a demographic analysis indicate the applicant's proposal or Agency's action may disproportionately affect a significant minority and/or low-income populations?
☐ Yes ☑ No ☐ N/A

If answer is no, skip to item 12. If answer is yes, continue with items 7 through 12.

7. Identify, describe, and provide location of EJ population Unincorporated communities of Mecca, located in Riverside County, CA, and Bombay Beach located in Imperial County, CA.

8. If a disproportionate adverse affect is expected to impact an EJ population, identify type/level of public outreach implemented. No adverse affect is expected; EJ populations will benefit from the construction of the proposed project as it will improve water supply reliability.

9. Identify disproportionately high and adverse impacts on EJ populations. No disproportionately high and adverse impacts are expected on EJ populations.

10. Are adverse impacts appreciably more severe or greater in magnitude than the adverse impacts expected on non-minority/low-income populations?
☐ Yes ☑ No ☐ N/A

11. Are alternatives and/or mitigation required to avoid impacts to EJ populations?
☐ Yes ☑ No ☐ N/A

If yes, describe _____

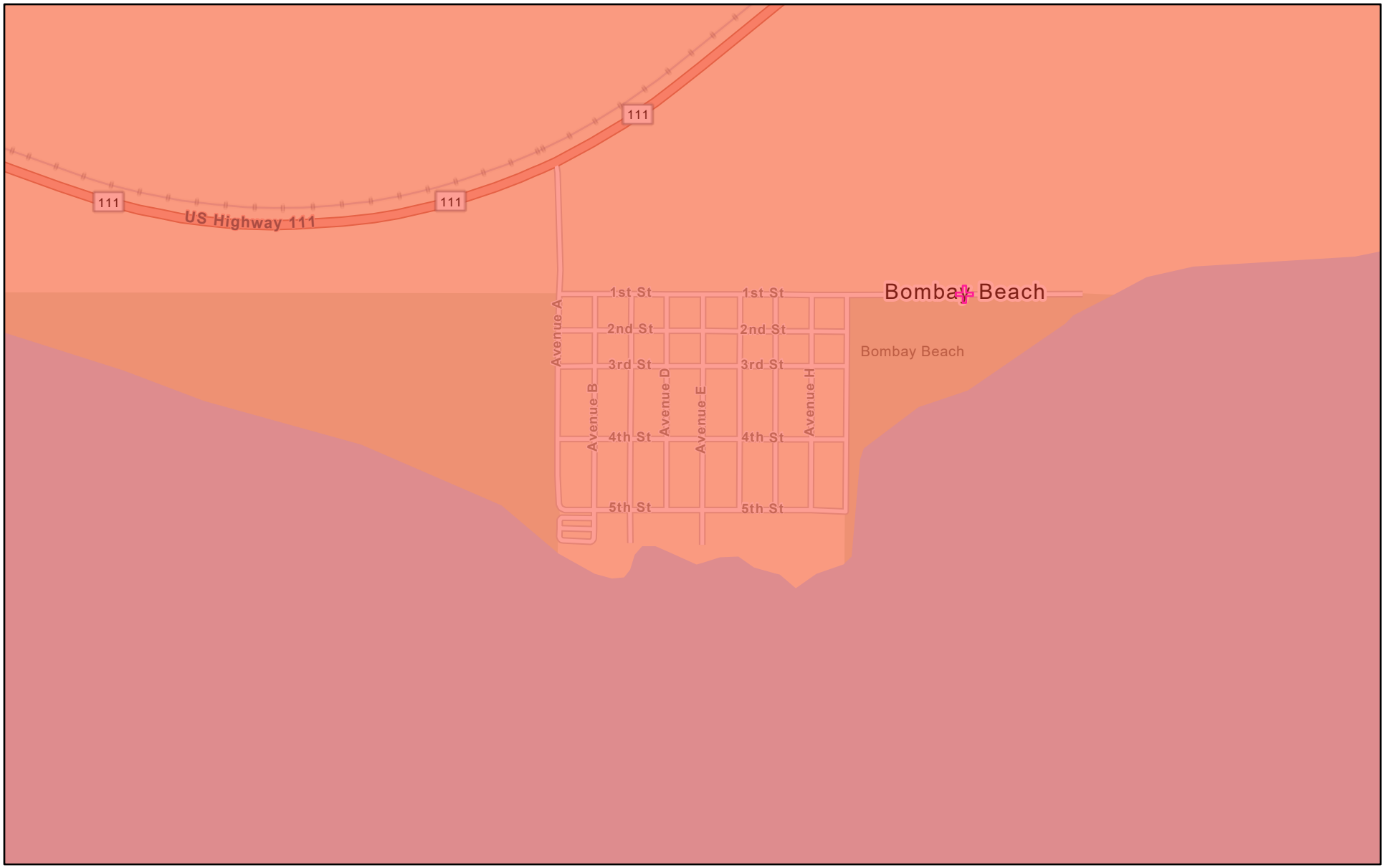
12. I certify that I have reviewed the appropriate documentation and have determined that:
☑ No major EJ or civil rights impact is likely to result if the proposal is implemented.
☐ A major EJ or civil rights impact is likely to result if the proposal is implemented.

Luis Andrade, CP Specialist
Name and Title of Certifying Official

06-03-2021
Date

LUIS ANDRADE Digitally signed by LUIS ANDRADE
Date: 2021.06.03 16:04:07 -07'00'

# CVWD IXTP7991- Pct. Population Below Poverty Level (Bombay Beach, CA)




6/3/2021

by Tract

- 0 – 5.6
- > 5.6 – 9.7
- > 9.7 – 15
- > 15 – 23.9
- > 23.9 – 100
- Search Result (point)

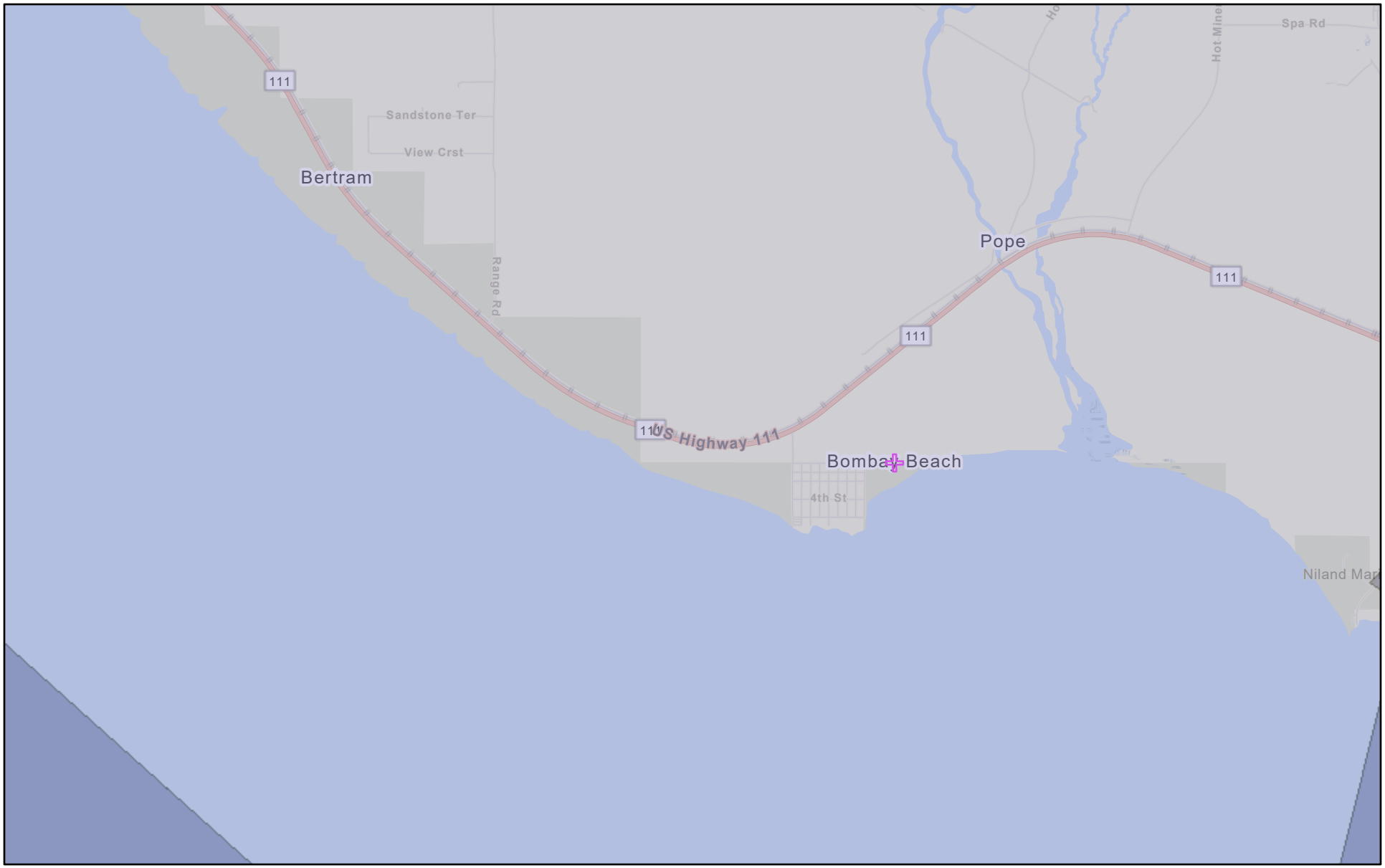
1:18,056

0 0.13 0.25 0.5 mi

0 0.2 0.4 0.8 km

EPA, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

# CVWD IXTP7991- Pct. People Of Color Population (Bombay Beach, CA)




6/3/2021

by Block Group

- 0 – 8.8
- > 8.8 – 20.3
- > 20.3 – 39.7
- > 39.7 – 73
- > 73 – 100
- Search Result (point)

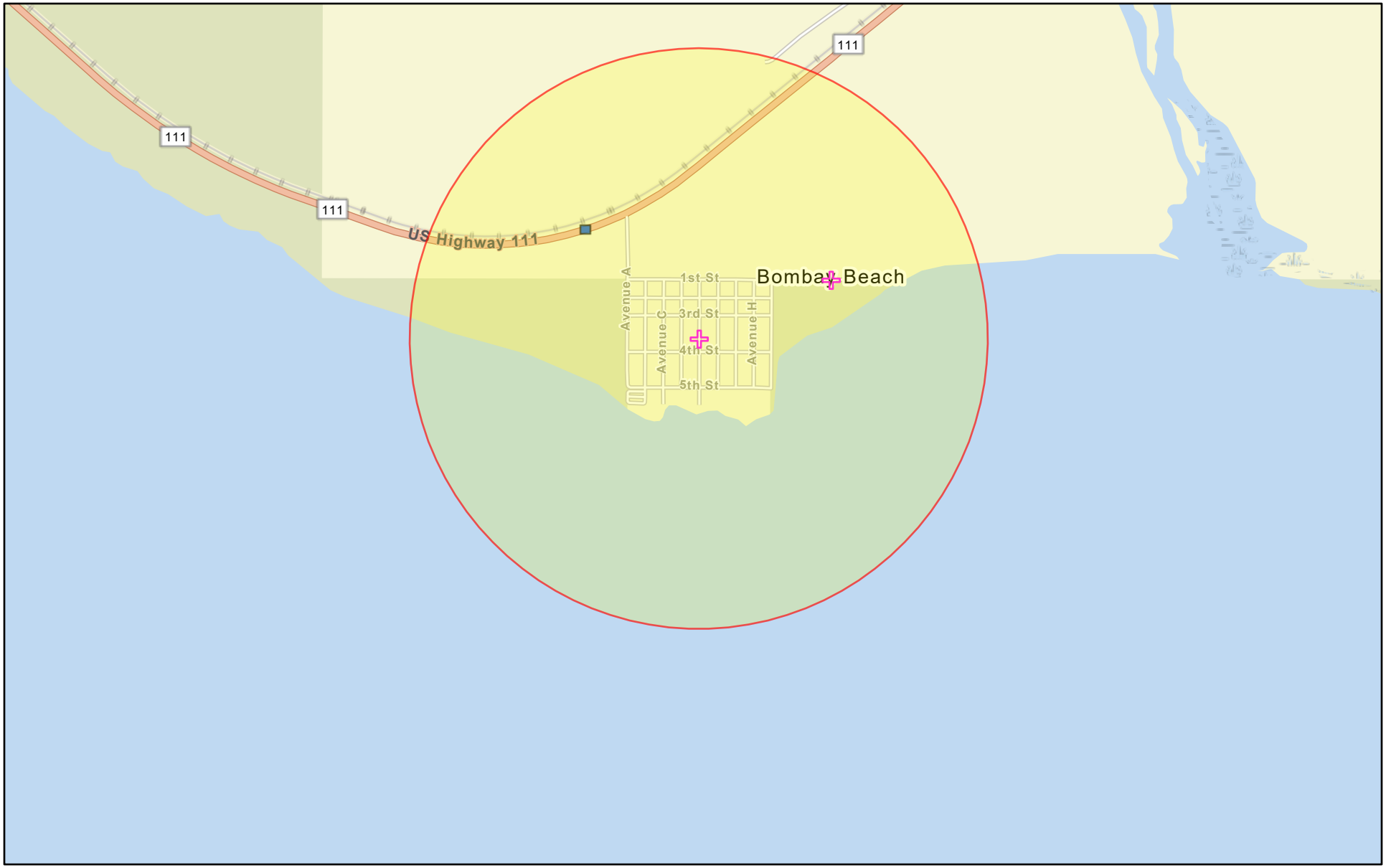
1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

EPA OEI, OEJ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

# CVWD IXTP7991- Sites Reporting to EPA (Bombay Beach, CA)




6/3/2021

1:36,112

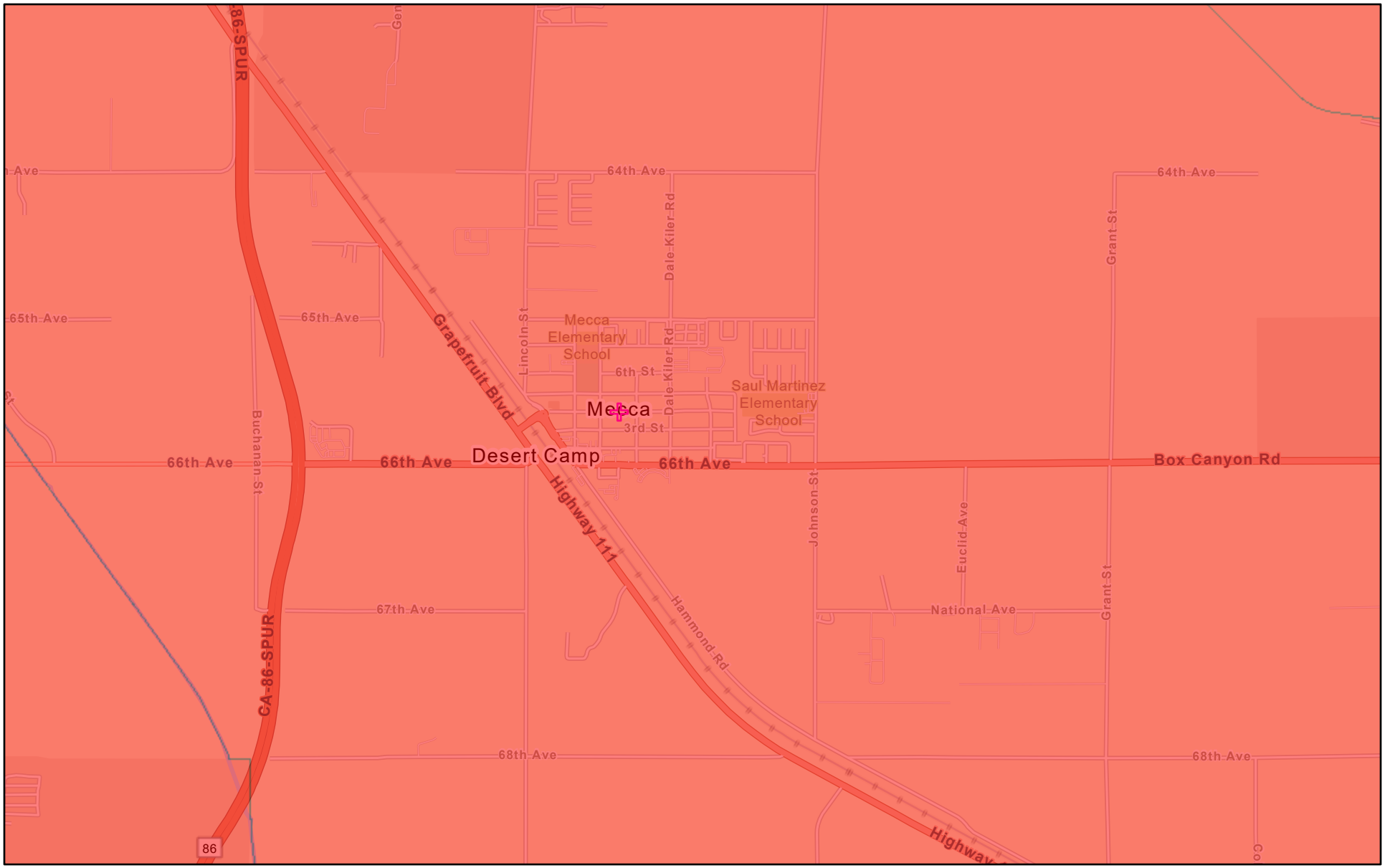
0 0.25 0.5 1 mi

0 0.4 0.8 1.6 km

- Superfund
- Toxic releases
- Water dischargers
- Air pollution
- Brownfields
- Bombay Beach, CA
- Search Result (point)

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, EPA OEI

# CVWD IXTP7991- Pct. Population Below Poverty Level (Mecca, CA)




6/3/2021

by Tract

- 0 – 5.6
- > 5.6 – 9.7
- > 9.7 – 15
- > 15 – 23.9
- > 23.9 – 100
- Search Result (point)

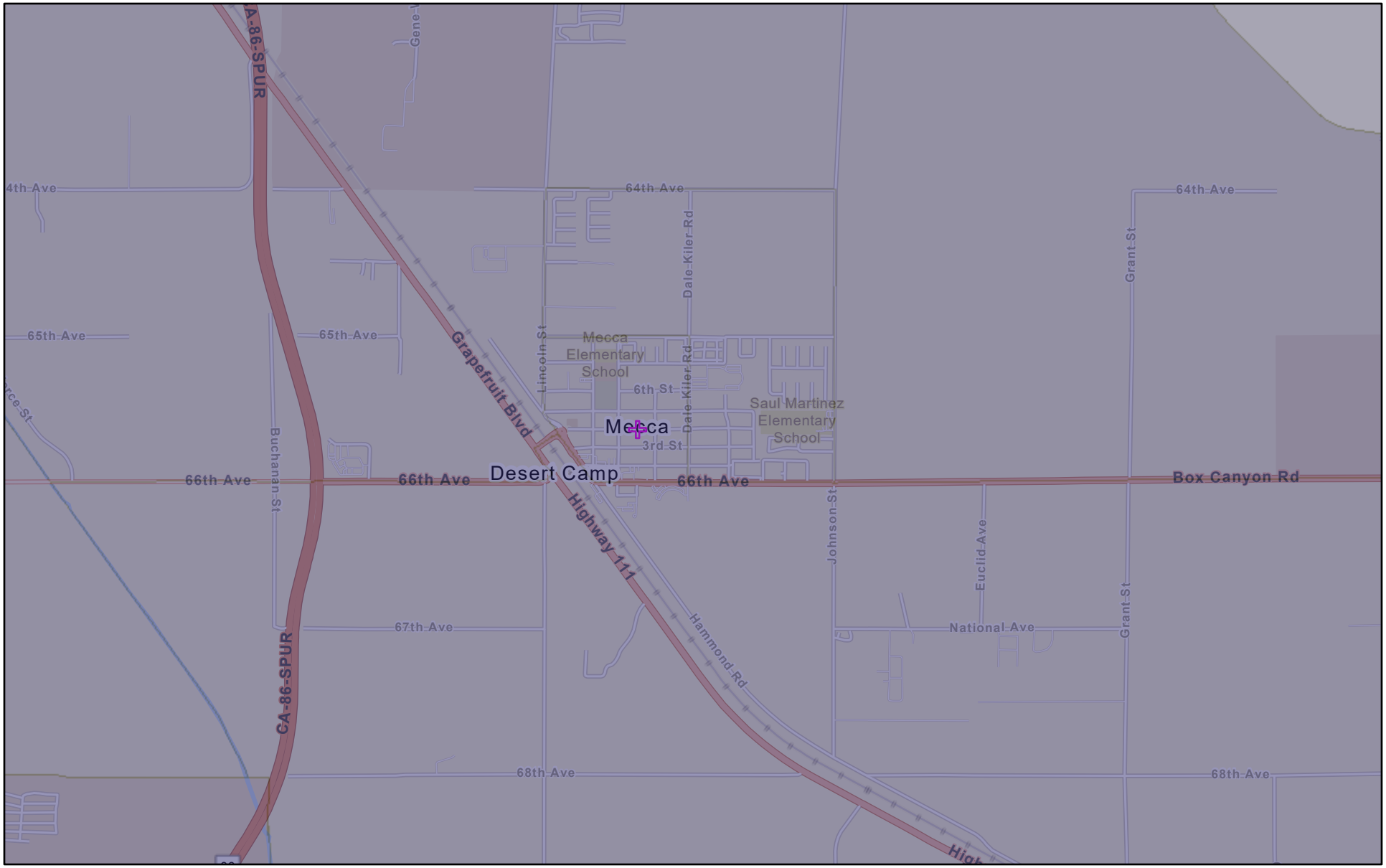
1:36,112

0 0.25 0.5 1 mi

0 0.4 0.8 1.6 km

EPA, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

# CVWD IXTP7991- Pct. People of Color Population (Mecca, CA)




6/3/2021

by Block Group

- 0 – 8.8
- > 8.8 – 20.3
- > 20.3 – 39.7
- > 39.7 – 73
- > 73 – 100
- Search Result (point)

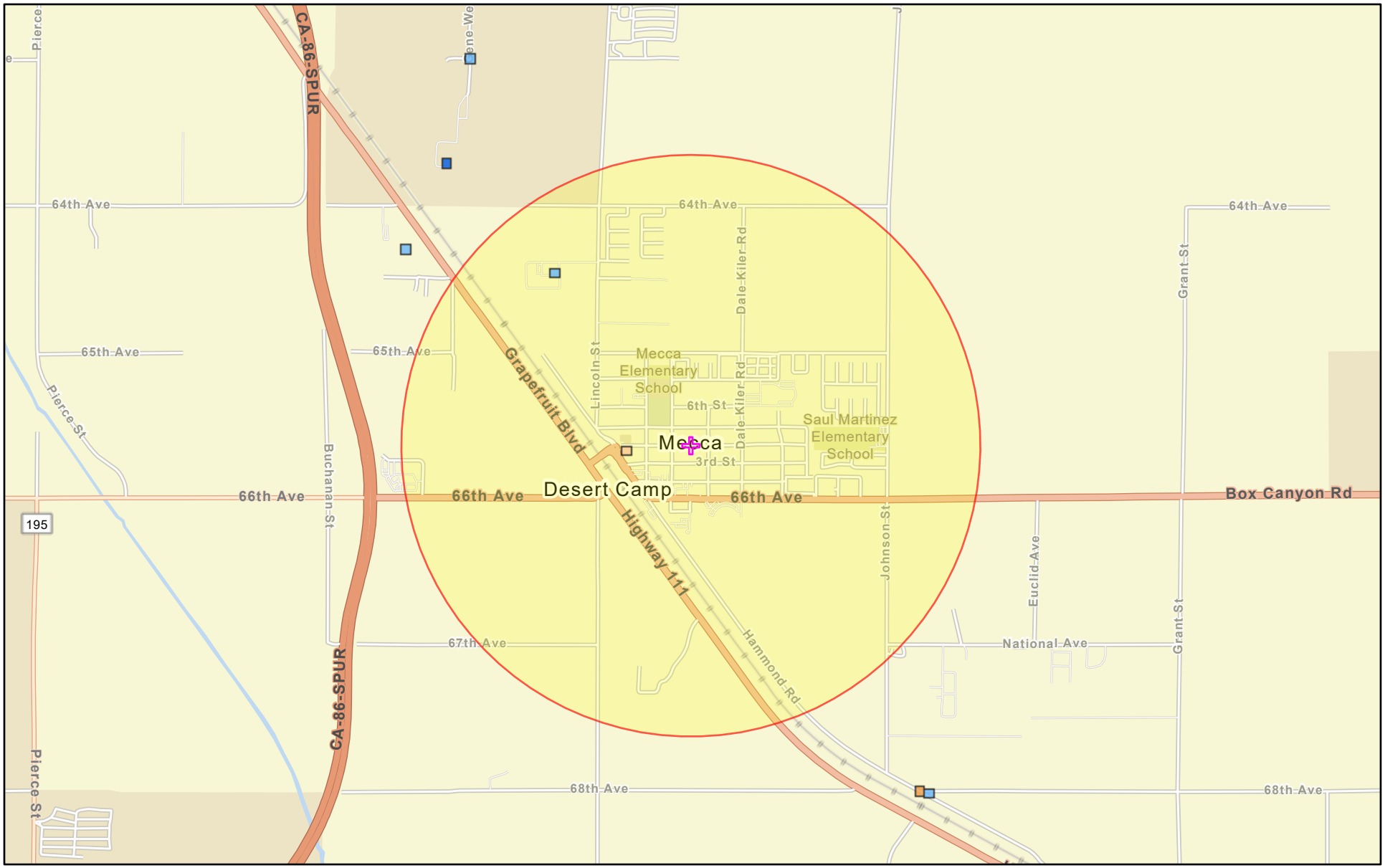
1:36,112

0 0.25 0.5 1 mi

0 0.4 0.8 1.6 km

EPA OEI, OEJ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

# CVWD IXTP7991- Sites Reporting to EPA (Mecca, CA)




6/3/2021

1:36,112

0 0.25 0.5 1 mi

0 0.4 0.8 1.6 km

Superfund

Water dischargers

Brownfields

Toxic releases

Air pollution

Mecca, CA

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, EPA OEI