



## CALIFORNIA PUBLIC UTILITIES COMMISSION

# CALIFORNIA AMERICAN WATER COMPANY MONTEREY PENINSULA WATER SUPPLY PROJECT

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## Mitigation Monitoring, Compliance, and Reporting Program

September 2019



Photo credit: Karen Grimmer

CPUC Proceeding No. A.12-04-019  
State Clearinghouse No. 2006101004

Prepared for:  
California Public Utilities Commission

Prepared by:  
Environmental Science Associates





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# ACRONYMS

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APM	Applicant Proposed Measures
ASR	aquifer storage and recovery
CalAm	California American Water Company
CCSD	Castroville Community Services District
CEII	Critical Energy Infrastructure Information
CEQA	California Environmental Quality Act
CPCN	Certificate of Public Convenience and Necessity
CPM	Compliance Project Manager
CPUC PM	CPUC Project Manager
CPUC	California Public Utilities Commission
CSIP	Castroville Seawater Intrusion Project
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EM	environmental monitors
FS	Field Supervisor
G.O.	General Order
M1W	Monterey One Water
MBMH	Monterey Bay Military Housing
MBNMS	Monterey Bay National Marine Sanctuary
MMCRP	Mitigation Monitoring, Compliance, and Reporting Program
MMRP	Mitigation Monitoring and Reporting Program
MPWSP	Monterey Peninsula Water Supply Project
NCR	Non-Compliance Report
NEPA	National Environmental Policy Act
NTP	Notices to Proceed
OSHA	Occupational Safety and Health Administration
PFM	Petition for Modification
PM	Project Manager
Project	Monterey Peninsula Water Supply Project

PTC	Permits to Construct
PU Code	Public Utilities Code
RFNTP	Request for NTP
RO	reverse osmosis
ROW	right-of-way
SCADA	Supervisory Control and Data Acquisition
SM	Site Managers
SWPPP	Storm Water Pollution Prevention Plan
TAMC	Transportation Agency for Monterey County
TEWS	Temporary Extra Work Space
WEAP	Worker Environmental Awareness Program



# CHAPTER 1

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## Introduction

### 1.1 Project Overview

The Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) for the Monterey Peninsula Water Supply Project (MPWSP or Project), was certified by the California Public Utilities Commission (CPUC) on September 13, 2018. Appendix D to CPUC Decision 18-09-017 is the adopted Mitigation Monitoring and Reporting Program (MMRP), and includes procedures for preparing and implementing a Mitigation Monitoring, Compliance, and Reporting Program (MMCRP). The MMCRP is meant to ensure compliance with mitigation measures identified in the Final EIR/EIS and approved in Decision 18-09-017, as well as with any terms and conditions associated with Monterey Bay National Marine Sanctuary (MBNMS) authorizations. The CPUC is the Lead Agency under the California Environmental Quality Act (CEQA). MBNMS is the Lead Agency under the National Environmental Policy Act (NEPA).

### 1.2 Project Description

**Figure 5.4-5** from the FEIR presents an overview of the Project and **Table 5.4-9** from the FEIR (see FEIR Figures and Tables provided herein as Appendix A) provides a detailed list of the Project facilities, which include:

- A source water intake system, consisting of seven subsurface slant wells (five active and two on standby) located at the CEMEX site and a source water pipeline.
- A 6.4 mgd desalination plant and appurtenant facilities, including source water receiving tanks; pretreatment, reverse osmosis (RO), and post-treatment systems; backwash supply and filtered water equalization tanks; treated water storage tanks; chemical feed and storage facilities; brine storage facilities; and other associated non-process facilities.
- Desalinated water conveyance facilities, including pipelines and a stand-alone pump station.
- An expanded aquifer storage and recovery (ASR) system, including two additional injection/extraction wells (ASR-5 and ASR-6 Wells), two parallel ASR Conveyance Pipelines to convey water to and from the ASR-5 and ASR-6 Wells and California American Water Company's (CalAm's) distribution system, and an ASR Pump-to-Waste System.

#### 1.2.1 Source Water Intake System

The seven (7) subsurface slant wells are to be located in the city of Marina, about 2 miles south of the Salinas River, in the retired mining area of the CEMEX sand mining facility (see **Figure 3-3a** from the FEIR). The slant wells would be built south of the existing CEMEX access road and

each well would have a wellhead and mechanical piping vault (meter, valves, and gauges); each of the five well sites would have one electrical enclosure, and one pump-to-waste basin.

The 2.2-mile-long, 42-inch-diameter buried Source Water Pipeline would convey the source water from the well sites to the MPWSP Desalination Plant at Charles Benson Road. From the slant wells, the proposed Source Water Pipeline would generally follow the CEMEX access road and would run parallel to the M1W existing outfall pipeline for approximately 0.7 mile (see **Figure 3-3a** from the FEIR). Two hydraulic surge tanks would be located near the source water pipeline connection point with the slant well collector pipe. Approximately 500 feet east of Highway 1, the Source Water Pipeline would veer northeast along a dirt path for roughly 1,000 feet to Lapis Road. There, a jack and bore method would be used to install the pipeline under the existing railroad tracks. The alignment would continue north within the Transportation Agency for Monterey County (TAMC) right-of-way (ROW), along Lapis Road for about 0.5 mile. Just south of where Lapis Road meets Del Monte Boulevard, the pipeline would turn east across Del Monte Boulevard and continue east for 0.8 mile to the MPWSP Desalination Plant site at the east end of Charles Benson Road. This 0.8-mile-long segment of pipe would be installed parallel to, and north of, the Charles Benson Road right-of-way (i.e., outside of the paved road). The pipeline would be installed east-to-west along the north side of the row of trees and along the southern boundary of the agricultural land (see **Figures 3-4** and **3-5a** from FEIR).

## 1.2.2 Desalination Plant

The Desalination Plant would be located in unincorporated Monterey County, on the upper terrace (approximately 25 acres) of a 46-acre vacant parcel on Charles Benson Road, northwest of the Regional Wastewater Treatment Plant and the Monterey Regional Environmental Park (see **Figure 3-5a from the FEIR**). The site would include the desalination treatment facilities, administrative building, a laboratory facility, driveways, parking, and maintenance areas. The brine storage and disposal system would also be located at the Desalination Plant site, and consist of an uncovered 3-million-gallon brine storage basin with impermeable liners. Brine would be conveyed through the 1-mile-long, 36-inch-diameter Brine Discharge Pipeline to a proposed Brine Mixing Box to be installed immediately within the Regional Wastewater Treatment Plant and maintained by Monterey One Water (M1W) as a new upstream connection with its existing M1W ocean outfall.

## 1.2.3 Desalinated Water Conveyance

Desalinated product water would exit the Desalination Plant through a series of pipelines (i.e., the new Desalinated Water Pipeline and the new Transmission Main), including surface equipment such as valves and blowoffs, to connect with the existing CalAm water distribution system in Seaside. Desalinated water would also be conveyed via a proposed pipeline to the CSIP pond at the south end of the Regional Wastewater Treatment Plant and via a proposed Castroville Pipeline to the Castroville Seawater Intrusion Project (CSIP) recycled water system used for crop irrigation via the Castroville Community Services District (CCSD) Well #3. Trenchless methods of pipeline installation would be required at the following locations:

- Castroville Pipeline under Tembladero Slough.

- Castroville Pipeline under the TAMC ROW and the Dole Driveway adjacent to Monte Road, south of the Salinas River.
- Source Water Pipeline beneath the TAMC ROW at Lapis Road, just north of the CEMEX Lapis Plant access road.
- New Desalinated Water Pipeline beneath the TAMC ROW near the southern intersection of Lapis Road and Del Monte Boulevard.
- New Transmission Main beneath the TAMC ROW near Seaside Avenue and Del Monte Boulevard.
- New Transmission Main beneath the TAMC ROW and Reservation Road.
- New Transmission Main beneath the TAMC ROW near Marina Drive, Del Monte Boulevard, and Reindollar Avenue in the City of Marina.
- New Transmission Main beneath the spur railroad line west of Highway 1 and north of 1st Street in Seaside, CA.
- New Transmission Main at Highway 1 and Lightfighter Drive.

## 1.2.4 New Desalinated Water Pipeline

Starting from the Desalination Plant site, the 3.3-mile-long, 36-inch-diameter buried new Desalinated Water Pipeline would extend west for approximately 0.8 mile, parallel to the row of trees on the north side of the Charles Benson Road right-of-way, and alongside the Source Water Pipeline. At Del Monte Boulevard, the new Desalinated Water Pipeline would turn north on Del Monte Boulevard for approximately 800 feet to Lapis Road, and continue south within TAMC right-of-way along Lapis Road for approximately 1.3 mile to another Lapis Road/Del Monte Boulevard intersection. From this intersection of Lapis Road and Del Monte Boulevard, the new Desalinated Water Pipeline would be built under the Monterey Peninsula Recreational Trail and TAMC right-of-way using trenchless construction, then continue south along the west side of the Monterey Peninsula Recreational Trail and TAMC right-of-way for approximately 1.4 mile to Reservation Road (see **Figures 3-4** through **3-7** from the FEIR). South of Reservation Road, this pipeline is referred to as the new Transmission Main.

## 1.2.5 New Transmission Main

At Reservation Road, water in the new Desalinated Water Pipeline would enter the 6-mile-long, 36-inch-diameter new Transmission Main and continue south within the TAMC right-of-way. At a point approximately 750 feet north of Highway 1, it would continue south on the west side of Del Monte Boulevard and beneath the Highway 1 overpass within the TAMC right-of-way for approximately 2 miles. At approximately 1,000 feet north of the Lightfighter Drive overpass, the new Transmission Main would cross under Highway 1 and continue southeast for approximately 1,400 feet, making two turns before reaching the south side of Lightfighter Drive, just east of the intersection of Lightfighter Drive and 1st Avenue. The new Transmission Main would continue east along Lightfighter Drive for approximately 0.4 mile to General Jim Moore Boulevard, turn south along the east side of General Jim Moore Boulevard to Normandy Road. South of Normandy Road the pipeline would be located along the west side of General Jim Moore

Boulevard for approximately 1.9 miles, ending at the existing Phase I ASR Facilities (see **Figures 3-7 through 3-9a** from the FEIR) where it would connect to CalAm's existing water supply distribution system at the General Jim Moore Boulevard/Coe Avenue intersection.

### 1.2.6 Carmel Valley Pump Station

The Carmel Valley Pump Station would be enclosed in a 764-square-foot, single-story building on a site located approximately 240 feet south of Carmel Valley Road near the intersection of Rancho San Carlos Road (see **Figure 3-10c** from the FEIR).

### 1.2.7 Castroville Pipeline

The 4.5-mile-long, 12-inch-diameter Castroville Pipeline would convey desalinated water from the MPWSP Desalination Plant to the Castroville Community Services District (CCSD) Well #3. The Castroville Pipeline would connect to the Desalinated Pipeline at Lapis Road near to Del Monte Boulevard, at which point the pipeline would head north within the TAMC right-of-way and briefly along Monte Road, where it would cross over the Salinas River attached to the Monte Road Bridge. On the north side of the bridge, the pipeline would continue northeast and reenter the TAMC right-of-way. A pipe connection stub would be provided at the northern end of Monte Road where it meets Nashua Road to allow for any future connection to the CSIP distribution system. The Castroville Pipeline would continue north along a dirt agricultural road, crossing under Tembladero Slough, within the TAMC ROW past Highway 183 (Salinas Road). From Highway 183, the pipeline would continue north and turn west across Del Monte Avenue to connect to CCSD Well #3 at the north corner of Del Monte Avenue and Merritt Street (see **Figures 3-4, 3-5a, 3-11, and 3-12** from the FEIR).

### 1.2.8 Pipeline to CSIP Pond

The 1.2-mile-long, 12-inch-diameter Pipeline to CSIP Pond would connect the Desalination Plant to the existing CSIP pond at the southern end of the M1W Regional Wastewater Treatment Plant (see **Figures 3-4 and 3-5a** from the FEIR).

### 1.2.9 Interconnections with Highway 68 Satellite Systems

The Project would also improve existing interconnections at three satellite water systems in the unincorporated communities of Ryan Ranch, Bishop, and Hidden Hills, which are located along the Highway 68 corridor (see **Figure 3-10** from the FEIR).

#### **Ryan Ranch–Bishop Interconnection Improvements**

A 1.1-mile-long, 8-inch-diameter pipeline would connect the main CalAm's distribution system with the Ryan Ranch and Bishop systems at Highway 68 and Ragsdale Drive. The pipeline would be installed within the rights-of-way of Ragsdale Drive, Lower Ragsdale Drive, Blue Larkspur Lane and Wilson Drive.

## Main System–Hidden Hills Interconnection Improvements

The 1,200 feet of 6-inch-diameter pipeline along Tierra Grande Drive would improve the existing interconnection between the main CalAm distribution system and the Hidden Hills system. The existing pump capacity of the Middle Tierra Grande Booster Station, located on lower Casiano Drive, would be upgraded by adding a new 350 gpm pump.

### 1.2.10 ASR Facilities

CalAm would build two additional injection/extraction wells (ASR-5 and ASR-6 Wells) on two United States Army-owned parcels located east of General Jim Moore Boulevard and south of its intersection with Ardennes Circle, in the c area (see **Figure 3-9a** from the FEIR). Each well would have a permanent 500 hp multi-stage vertical turbine pump, Supervisory Control and Data Acquisition (commonly called SCADA)<sup>1</sup> controls for remote operation, and various pipes and valves. Each well pump and electrical control system would be housed in a 900-square-foot concrete pump house. An electrical transformer would be installed at each well site to power the electrical control system. Security fencing would encompass an approximately 0.4- and 0.5-acre area around the ASR-5 and ASR-6 Wells, respectively.

Three parallel 0.9-mile-long, 16-inch-diameter ASR pipelines – the ASR Recirculation Pipeline, the ASR Conveyance Pipeline, and the ASR Pump-to-Waste Pipeline – would extend along General Jim Moore Boulevard between the proposed ASR-5 and ASR-6 Wells at the Fitch Park Monterey Bay Military Housing (MBMH) area and the intersection of Coe Avenue and General Jim Moore Boulevard.

### 1.2.11 Staging Areas

Construction equipment and materials would be stored within the construction work areas to the extent feasible. Construction staging for the subsurface slant wells at CEMEX, the MPWSP Desalination Plant, and the ASR-5 and ASR-6 Wells would be accommodated entirely within the project area boundary. For construction of all other facilities and pipelines, construction workers would use strategically located staging areas in the project area vicinity. With the exception of the staging area at M1W, the designated staging areas are primarily paved, gravel, or dirt parking lots located in highly disturbed areas. **Table 1-1** summarizes the staging area locations and current site conditions.

**TABLE 1-1**  
**CONSTRUCTION STAGING AREAS**

Location	Site Description
Monte Road/Neponset Road in unincorporated Monterey County	Paved parking lot (semi-trucks) at Dole Vegetable Processing Plant
M1W Property	In open area to the east of the proposed Brine Mixing Box
2nd Avenue, between Lightfighter Drive and Divarty Street, in Seaside	Paved parking lot at the Cal State University at Monterey Bay Athletic Fields

<sup>1</sup> SCADA (Supervisory Control and Data Acquisition) is a system for remote monitoring and operations of water supply facilities.

Location	Site Description
2nd Avenue/Lightfighter Drive in Seaside	Paved parking lot
West side of General Jim Moore Boulevard, near Gigling Road, in Seaside	Paved parking lot
East side of General Jim Moore Boulevard, near Gigling Road, in Seaside	Paved parking lot
West side of General Jim Moore Boulevard, near Seaside Middle School, in Seaside	Paved driveway

## 1.3 Monitoring Program

### 1.3.1 Authority

The CPUC has broad regulatory authority under Article XII of the California Constitution and Section 702 of the Public Utilities Code (PU Code) mandates that every public utility obeys and complies with every order, decision, direction or rule made by the Commission. Public utilities are subject to enforcement action and fines pursuant to PU Code Sections 2102-2105, 2107, 2108, and 2114. In 2013, the CPUC established a CEQA Citation Program authorizing Staff to fine public utilities for non-compliance with Permits to Construct (PTCs) and Certificates of Public Convenience and Necessity (CPCNs). MMCRPs are adopted as part of PTCs and CPCNs and are enforced as such.

Monitoring of mitigation measures to be implemented by a project is required by CEQA. Section 21081.6 of the California Public Resources Code requires a public agency to adopt a mitigation monitoring and reporting program when it approves a project that is subject to preparation of an EIR or Mitigated Negative Declaration and where significant adverse environmental effects have been identified. CEQA Guidelines Section 15097 clarifies requirements for mitigation monitoring or reporting.

Mitigation measures to be implemented as part of the MPWSP (Application No. A.12-04-019) were identified in the Final EIR/EIS prepared for the Project. The Final EIR was certified by the CPUC on September 13, 2018, in Decision D.18-09-017. Appendix D to the Decision is the adopted MMRP, and includes procedures for preparing and implementing a MMCRP to ensure compliance with mitigation measures approved in the EIR/EIS. In addition, Applicant Proposed Measures (APMs) were also included in the EIR/EIS, and they are therefore, included in the MMRP. The MMRP provides the framework for this MMCRP.

### 1.3.2 Purpose

The MMCRP provides guidelines and procedures for environmental compliance of the Project. The MMCRP was developed by the CPUC in coordination with CalAm and CPUC Environmental Compliance Monitors, and defines the reporting relationships, provides information regarding the roles and responsibilities of the Project's environmental compliance personnel, sets out compliance reporting procedures, and establishes a communication protocol.

The communication information as listed in the MMCRP will be updated throughout construction.

The purpose of this MMCRP is to ensure effective implementation of the mitigation measures and APMs identified in the EIR/EIS, as imposed by the CPUC and MBNMS. It describes the logistics of the monitoring process and establishes protocols to be followed by CalAm and its subcontractors, and the CPUC Third-party Compliance Monitors. This MMCRP includes:

- Procedures for approving minor project changes
- Procedures for dispute resolution
- Mitigation Measures and APMs that CalAm must implement as part of the Project
- Actions required to implement these measures
- Monitoring requirements
- Timing of implementation for each measure

### 1.3.3 Implementation of MMCRP

Implementation of the MMCRP will end when the CPUC determines there is no further need for CPUC monitoring of the Project. CalAm is required to perform post-construction monitoring for the Project to satisfy mitigation measure requirements that are listed in the MMRP. It is expected that post-construction monitoring and implementation of the MMCRP will continue for an appropriate amount of time (estimated 3 to 5 years) to verify that post-construction requirements (i.e., revegetation) have been met.

## 1.4 Construction Schedule

The estimated overall construction schedule for the project and duration of work for key construction activities are presented in **Table 1-2**. The estimated start date for construction is September 2019 with the project operational by September 2021. The actual construction schedule may vary based upon many factors, including the timeline for additional agency approvals and land acquisition, environmental conditions, and any necessary changes to the project design due to unexpected physical conditions. Construction of the various project segments and project components will occur intermittently throughout the overall project duration.

Project-related construction activities (beyond such pre-construction activities as engineering, design, studies, and permitting) will not begin until the CPUC's Project Manager has issued one or more Notices to Proceed (NTPs) covering the planned activities.

**TABLE 1-2  
ESTIMATED OVERALL CONSTRUCTION SCHEDULE**

Task Name	2019				2020				2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Construction Activity Regions</b>																
<b>#1 - Desal Plant</b>																
Preconstruction and Site Preparation																
Construction																
Brine and Salinas Valley Return																
<b>#2 - Slant Wells</b>																
Slant Well Civil (on-site only Cemex)																
Slant Well Drilling New Wells (6)																
Test Well Conversion																
<b>#3 - Major Pipelines (Feed, Treated, &amp; Castroville)</b>																
Treated Water Phase I (Seaside)																
Castroville Pipeline																
Treated Water Phase II (Marina, County)																
Feed Water (Cemex to Desal)																
<b>#4 - ASR Facilities</b>																
ASR Pipelines																
ASR Wells and Civil																
<b>#5 - Hidden Hills, Ryan Ranch, CV Pump Station</b>																
CPUC NTP																
Main System-Hidden Hills Interconnection Improvements																
Ryan Ranch-Bishop Interconnection Improvements																
Carmel Valley Pump Station																
<b>#6 - M1W Activities (Outfall, Mixing Chamber, Diffusers)</b>																
Diffuser Modifications																
Mixing Chamber																
Outfall Lining																



CalAm’s anticipated Request for NTP (RFNTP) to implement construction activities, is provided in **Table 1-3**.

**IMPORTANT:** Before work can proceed on a work package, a RFNTP must be made by CalAm and approved by the CPUC Project Manager (see Section 4.3, Notice to Proceed Process). The mitigation measures and APMs listed in Section 6 include the locations where these requirements apply and which must be implemented prior to the commencement of construction. CalAm will work closely with its contractors to ensure that site-specific mitigation measures are clearly identified and implemented. CPUC Third-Party Compliance Monitors will verify the implementation of mitigation measures prior to and during construction.

**TABLE 1-3  
CONSTRUCTION RFNTPs**

<b>RFNTP</b>	<b>MPWSP Component</b>	<b>General Location</b>
#1	Treated Water Pipelines, Phase 1	City of Seaside
	Treated Water Pipelines, Phase 2	City of Marina
	Treated Water Pipelines, Phase 3	U.S. Army
	Desalination Plant	Unincorporated Monterey County
	Source Water Intake	City of Marina

# CHAPTER 2

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## Scope of Program

### 2.1 Mitigation Measures and Applicant Proposed Measures

The Project is subject to mitigation measures and APMs identified in the Final EIR/EIS that are collectively referred to as mitigation measures, and are included in the approved Mitigation Monitoring and Reporting Program. All mitigation measures included in the Final EIR/EIS are assumed to be applicable to the approved Project, unless advised otherwise, are the core components of the MMCRP (included as Appendix E). Each RFNTP will provide the CPUC with mitigation measures applicable to the phase of work and organized by each of the various implementation phases (pre-construction, construction, post-construction, and operation and maintenance).

### 2.2 Permits and Authorizations

The CPUC and MBNMS are the Lead Agencies for the Project. However, the Project facilities cross lands, affects resources, or require activities that are under the jurisdiction of or regulated by other agencies. Agencies that may require separate permits or approvals, and relevant contact information are to be provided with the applicable RFNTP.

All required permits applicable to an RFNTP are to be secured and their terms and conditions implemented prior to undertaking any work that requires such permits. All permits acquired for a RFNTP shall be provided to the CPUC prior to undertaking work authorized by any permits. CalAm will provide notice to the CPUC of agency contacts, direction, and resolutions. Independently, and under their own authority and discretion, permitting agencies may implement their own monitoring and reporting schemes and undertake whatever enforcement actions they are authorized to pursue.

**IMPORTANT:** The status of required permits will be included in each request for an NTP. Copies of permits, including any permit requirements and stipulations, shall be provided to the CPUC.

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# CHAPTER 3

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## Roles and Responsibilities

### 3.1 Introduction

CalAm is responsible for implementing and maintaining all mitigation measures, and for obtaining and complying with all required permits. CalAm is responsible for ensuring that its agents and contractors comply with the MMCRP. CalAm also is responsible for satisfying requests from jurisdictional agencies and will notify and copy the CPUC on all correspondences related to final approvals and verifications for the Project if not otherwise copied on the correspondence.

Standards for successful mitigation are implicit in some mitigation measures, such as obtaining non-discretionary permits or avoiding a specific impact entirely. Additional resource avoidance or impact minimization conditions may be imposed by applicable agencies with jurisdiction through their discretionary permit processes.

**IMPORTANT:** CalAm will inform the CPUC Project Manager (CPUC PM) in writing of mitigation measures that are not, or cannot be successfully implemented. While the CPUC recognizes the need for flexibility post-decision in response to changed circumstances, it believes changes should be the exception to the rule, and it intends to ensure that any proposed change is subject to rigorous standards. Consequently, some requested changes may qualify for the process set forth in the MMCRP for minor project changes; others may require the submittal of a Petition for Modification pursuant to CPUC Rules of Practice & Procedure, Rule 16.4(a).

The CPUC, as the CEQA Lead Agency, is responsible for ensuring that all mitigation measures are implemented in a timely fashion as specified, and that the CPUC PM verifies CalAm's compliance with mitigation measures. Other jurisdictional agency representatives may visit construction areas at any reasonable and safe time, and may require information regarding the status of compliance with particular mitigation measures or permits. All visitors, including regulatory agency personnel, must sign-in with the job site safety representative and receive the site safety briefing before entering work sites. Site visits to active work sites will be coordinated with the CalAm Compliance Project Manager and/or site representative ahead of time. Additional information on communication protocols is presented in Section 4, Procedures.

This section describes specific CalAm and CPUC roles and responsibilities for the Project, and titles that will be assigned to personnel in these roles. A Roles and Responsibilities Organizational Chart is provided in Appendix B.

In addition, a list of designated personnel who will perform these and other monitoring roles, including their organization and contact information, will be included in Appendix C. These personnel and their contact information will be updated as necessary throughout implementation of the MMCRP to reflect personnel changes.

## 3.2 CalAm Compliance Personnel

CalAm project personnel and CalAm’s contractors are responsible for implementing all project mitigation measures and the MMCRP. It is CalAm’s responsibility to comply with project requirements, plan construction activities in a manner that meets these requirements, document compliance activities and the results of mitigation, and implement the MMCRP. The compliance personnel titles, and roles and responsibilities presented below represent a preliminary approach to the Project. The titles for Project personnel and their associated roles and responsibilities are subject to change. The Project organization chart included in Appendix B, present personnel assigned to the roles, and relationships between the roles. If/when the organization structure changes, the organization charts will be updated. In the descriptions that follow, the prefix “CalAm” may refer to CalAm employees or CalAm contractors such as third-party consultants.

### 3.2.1 CalAm Project Manager

The CalAm Project Manager (PM) is identified in Appendix B and shall be the owner’s representative, with the lead and ultimate responsibility for implementing environmental requirements and compliance with the MMCRP. The CalAm PM will be responsible for managing subcontractors that are providing construction services, as well as environmental services such as compliance monitoring. The CalAm PM’s responsibilities include:

- Managing all onsite contractors.
- Directing the development and implementation of preconstruction environmental mitigation, planning, permitting, and compliance activities; environmental inspection program; and environmental training.
- Ensuring compliance with and monitoring compliance of mitigation and other environmental requirements during construction.
- Monitoring and reporting post-construction restoration and compensation requirements.
- Communicating environmental requirements to the CalAm Compliance Team and Construction Managers
- Communicating with the CPUC Compliance Monitoring Team regarding environmental requirements, construction needs, and construction schedule changes
- Reporting the effectiveness of mitigation and regularly submitting required documentation and notifications to CPUC
- Providing leadership to correct any issues with environmental compliance

### 3.2.2 CalAm Compliance Project Manager

The CalAm Compliance Project Manager (CPM) is identified in Appendix B and will be responsible for overseeing compliance with the MMRP, and other project requirements. The CPM will also act as a liaison between environmental and construction staff. The CPM's responsibilities include:

- Ensuring compliance with mitigation and other environmental requirements during construction.
- Communicating environmental requirements to Construction Project Managers, Project Engineers, Superintendents, and Construction Foremen
- Communicating with the CPUC Monitoring Team regarding environmental requirements, construction needs, and construction schedule changes
- Providing oversight of environmental monitoring
- Coordinating with construction management personnel
- Monitoring and reporting post-construction restoration and compensation requirements
- Resolving compliance issues
- Providing leadership to correct any issues with environmental compliance
- Identifying project changes requiring GIS updates to address work new work areas

### 3.2.3 CalAm Field Supervisor

The CalAm Field Supervisor (FS) is identified in Appendix B and will oversee the day-to-day environmental monitoring activities during construction. In addition, the FS will provide day-to-day direction to the Field Monitors and serve as the liaison between CalAm construction management personnel and Field Monitors. Roles and responsibilities for the CalAm FS include:

- Providing oversight of applicable mitigation requirements
- Coordinating with CPUC and compliance personnel
- Coordinating with CalAm construction management personnel
- Resolving compliance issues
- Scheduling field staff to support anticipated construction
- Providing day-to-day direction, oversight, and mentoring of Field Monitors and specialty monitors
- Clarifying mitigation requirements and CPUC conditions to field staff
- Reviewing and providing QA/QC of daily monitoring reports
- Preparing weekly summary reports

- Communicating with the CPUC and regulatory agency personnel in the field, in coordination with subject matter experts, CLs, and ECs
- Conveying work stoppage information such as delay time
- Participating in tailboard meetings to focus construction and monitors on issues or resources

### 3.2.4 CalAm Site Managers

CalAm has designated Compliance Site Managers (SMs) identified in Appendix B who will assist with implementation of the environmental requirements and implementing the MMCRP. The roles and responsibilities of the SMs consist of those that are delegated by the CalAm PM, and in addition to sharing the delegated roles and responsibilities of the CalAm PM, the roles and responsibilities of the SMs may include:

- Providing oversight of applicable mitigation requirements
- Coordinating with CPUC and compliance personnel
- Providing oversight of environmental monitoring
- Coordinating with subject matter experts
- Coordinating with field leads
- Coordinating with construction management personnel
- Communicating and resolving elevated compliance issues with CalAm and the CPUC Monitoring Team in the form of Temporary Work Space Requests, Minor Project Refinement Requests, and Project Modifications
- Coordinating mitigation plan changes with CalAm, appropriate agencies, and the CPUC Monitoring Team
- Coordinating and preparing Compliance Documentation Tables

### 3.2.5 CalAm Lead Biologist

The Lead Biologist identified in Appendix B will be responsible for compliance with the biological mitigation measures, other biological project requirements, and mitigation plan implementation. The Lead Biologist will be responsible for managing all biological staff and will provide project history and subject matter expertise. The Lead Biologist will provide support and oversight for the Field Supervisor and Field Monitors. The Lead Biologist will also be responsible for making recommendations regarding the monitoring approach and mitigation measure implementation. The Lead Biologist will be a point of contact for agency staff and responsible for working to resolve disputes. Other Lead Biologist responsibilities include:

- Providing oversight of applicable mitigation requirements
- Coordinating with CPUC, appropriate wildlife agencies, and compliance personnel
- Providing oversight of biological monitoring

- Coordinating with subject matter experts
- Coordinating with field leads
- Coordinating with construction management personnel
- Resolving compliance issues in coordination with CPUC, CalAm PM, CalAm CPM, and regulatory agencies
- Developing recommendations for compliance processes and protocols

### 3.2.6 CalAm Field Monitors

CalAm Field Monitors (FMs) are tentatively identified in Appendix C and may change over the course of the project. FMs shall work closely with construction personnel in the field to implement mitigation and perform, or oversee, required monitoring tasks. The FMs shall be the primary field employees responsible for monitoring day-to-day environmental compliance. CalAm FMs will primarily be biological monitors trained to monitor compliance with biological mitigation measures, as well as measures addressing other resources (e.g., storm water pollution prevention plan [SWPPP], fugitive dust) with the ability to coordinate with specialty monitors (e.g., cultural, tribal, paleontological) when needed. The FM's responsibilities include:

- Understanding environmental project requirements and construction needs
- Taking direction from the CalAm CPM, FS, and SMs
- Conducting or overseeing monitoring activities specified in project mitigation measures
- Implementing the MMCRP
- Participating in daily tailboards
- Conducting preconstruction surveys/sweeps of the construction site and areas around equipment
- Verifying staking, flagging, or marking sensitive resources in the field
- Relocating biological resources under direction of qualified biologists/specialty monitors
- Placing 1-hour holds on construction, as needed
- Providing mitigation guidance, as needed
- Documenting non-compliance issues
- Coordinating with the FS, SMs, CalAm CPM, and construction management, as needed
- Preparing daily monitoring reports
- Determining the effectiveness of mitigation and reporting whether adjustments need to be made to the Compliance Team



### 3.2.7 CalAm Construction Contractors

Under the direction of CalAm, subcontracted construction crews are responsible for complying with mitigation measure requirements and the MMCRP. Appendix B presents the Roles and Responsibilities Organizational Chart, which includes the primary contractors that will be used on the project.

## 3.3 CPUC Monitoring Team

### 3.3.1 CPUC Project Manager

The CPUC PM has overall responsibility for ensuring that the MMRP is implemented as adopted by the CPUC. The CPUC PM will determine the effectiveness of the MMCRP based on the implementation of the processes prescribed in the MMCRP and measures included in the applicable MMRPs provided as tables in an appendix to each RFNTP. The CPUC PM delegates field monitoring and reporting responsibilities to third-party compliance monitors during construction and will oversee their work through telephone calls and review of daily and weekly status reports. The CPUC PM will be notified of all noncompliance situations and may suggest measures to help resolve the issue(s).

**IMPORTANT:** The CPUC PM will issue NTPs for construction of each work package identified by CalAm. However, the CPUC's NTP does not authorize construction to start if additional approvals are required from other agencies and such approvals have not been obtained at the time of issuance of an NTP. No construction requiring a permit may occur on other jurisdictional lands without specific approval by those agencies.

### 3.3.2 CPUC Monitoring Manager

The overall monitoring program will be administered under the direction and oversight of the CPUC PM. The CPUC will delegate monitoring and reporting responsibilities to a third-party monitor (ESA). The number of monitors and the frequency of site inspections will depend on the number of concurrent construction activities and their locations with respect to sensitive resources and land uses, and compliance with Project mitigation measures.

The CPUC Monitoring Manager's responsibilities include:

- Managing the CPUC Monitoring Supervisor and communicating regularly with the CPUC PM
- Reviewing CPUC monitoring reports and discussing non-compliance issues with the CPUC PM
- Reviewing reports and other documentation provided by CalAm for MMRP compliance
- Reviewing NTP Requests, MPRs, and Temporary Extra Work Space requests and submitting to CPUC PM for approval and sign-off
- Acting as project liaison on the CPUC's behalf to work with CalAm public affairs staff and address community issues and concerns if and when they arise

- Working with CalAm Compliance Personnel to resolve any issues and incidents
- Coordinating with other jurisdictional agencies as needed

### 3.3.3 CPUC Monitoring Supervisor

The CPUC Monitoring Supervisor will support the CPUC PM and CPUC Monitoring Manager by overseeing the day-to-day mitigation monitoring efforts. The CPUC Monitoring Supervisor shall perform the delegated duties of the CPUC Monitoring Manager. The responsibilities of the CPUC Monitoring Supervisor include:

- Providing oversight of the CPUC Environmental Monitors (field staff), including training, orienting, scheduling, coordinating and conducting routine monitoring activities described in the MMCRP on behalf of the CPUC
- Implementing CPUC's responsibilities for MMCRP procedures, and verifying CalAm fulfills its responsibilities
- Reviewing all pre-construction mitigation plans and preparing draft review memoranda for the CPUC PM, and keeping a record of MMCRP procedures
- Determining the appropriate frequency of site visits for CPUC environmental monitors (EMs)
- Conducting regular visits at beginning of construction, with frequency adjusted as appropriate
- Verifying and documenting CalAm's compliance with all project requirements prior to, during, and following construction, and creating an independent record of project compliance
- Documenting any incidents with compliance, reporting them to the CPUC PM, and tracking the project compliance record
- Reviewing all CPUC and CalAm daily and weekly monitoring reports
- Preparing MMCRP weekly compliance reports and submitting to the CPUC
- Reviewing RFNTPs for Monitoring Manager's review and CPUC's review and sign-off
- Reviewing CalAm's compliance reports for consistency with field observations and identifying and reconciling any inconsistencies
- Coordinating all aspects of the project with CalAm Compliance Personnel
- Communicating directly with CalAm Compliance Personnel regarding notification of CPUC site visits, schedule updates, MMCRP procedures, and any compliance incidents observed during site inspections
- Working with the CPUC Monitors and CalAm Compliance Personnel to resolve any compliance incidents.

### 3.3.4 CPUC Environmental Monitors

CPUC EMs shall be the primary field personnel for the CPUC, and are responsible for verifying compliance with project requirements at the project sites as directed by the CPUC Monitoring Supervisor. The CPUC EMs will be the primary point of contact with in-field agency personnel

on behalf of the CPUC. CPUC EMs will be an integral part of the project team and will stay apprised of construction activities and schedule changes, and will monitor construction activities for compliance with project mitigation measures. The CPUC EMs will document compliance through field notes and will prepare weekly reports documenting construction activities, progress, and compliance. The CPUC EMs shall note any issues or problems with implementation of mitigation, notify the appropriate designated project members, and report problems to the CPUC PM. The responsibilities of the CPUC EMs include:

- Inspecting the project sites, documenting construction and compliance activities, and reporting any potential compliance incidents
- Preparing and submitting daily monitoring reports to the CPUC Monitoring Supervisor, and relaying any important information about the project delivered in the field

**IMPORTANT:** The enforcement authority of the CPUC EM in the field is limited to conditions posing imminent safety or resource endangerment concerns at a work location. The CPUC EM is authorized to work with project personnel to temporarily stop work under these conditions if it is safe to do so. CalAm will address the identified issues. Only the CPUC PM has authority to shut down the project completely.

### 3.4 Jurisdictional Agencies

Personnel from jurisdictional agencies (e.g., Monterey Bay National Marine Sanctuary) may periodically visit the Project site to verify compliance or to request information from CalAm regarding compliance with laws, regulations, and Project permits identified in Appendix D. All visitors, including regulatory agency personnel, must sign-in with the job site safety representative and receive the site safety briefing before entering work sites. Site visits to active construction sites will be coordinated with the CalAm CPM and/or site representative ahead of time. CalAm is responsible for responding to requests from jurisdictional agencies and submitting permits and authorizations to CPUC per applicable mitigation measures described in the MMRP. CalAm shall provide CPUC with documentation (i.e., email correspondence, letters, and/or memoranda) related to final agency approvals for the Project if CPUC is not directly involved with the coordination effort and the agency approval is tied to mitigation measures. CalAm shall also provide any copies of permit amendments or modifications to the CPUC and notify the CPUC of any proposed changes in permit conditions. In addition, CPUC may contact jurisdictional agencies at any time regarding the Project and to clarify agency requirements, permit conditions, or approvals relating to their jurisdiction, as needed. Prior to CPUC communicating with jurisdictional agencies, CPUC will notify the CalAm PM or CalAm CPM of the CPUC's questions regarding the jurisdictional agency's requirements, permit conditions, or approval and the intention to contact the agency. If appropriate, the CPUC may request that CalAm seek the requested clarification or invite CalAm to participate in the discussion in a manner that is mutually convenient with all parties; however, the CPUC retains the authority to coordinate directly with other agencies regarding the Project and permit conditions or plan review comments.

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# CHAPTER 4

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## Procedures

This section addresses MMCRP procedures for personnel identified in Section 3 that shall be implemented prior to, during, and following construction to facilitate successful implementation and documentation of Project requirements. Procedures in this section include general communication guidelines, standard CPUC practices, and documentation tools developed from experience with past CPUC projects that involved mitigation monitoring oversight.

### 4.1 Communication Guidelines

Good communication is essential to successful implementation of an environmental mitigation compliance program. To avoid Project delays, CPUC and CalAm environmental and construction representatives will interact regularly and maintain professional, responsive communications at all times. CalAm environmental representatives will coordinate closely with CPUC EMs throughout the monitoring effort to ensure that issues are addressed and resolved in a timely manner. To that end, this section provides a communication protocol for the timely and accurate dissemination of information to all levels of the Project regarding surveys, plans, mitigation measures, construction activities, non-compliance incidents, and planned or upcoming work.

A list of current construction monitoring personnel and managers, identified by title, and with contact information is provided in Appendix C. An updated list will be distributed as needed to keep all parties informed of monitor and staff additions/changes, as well as construction scheduling changes. This list of personnel, subsequent updates, and construction schedule changes will be distributed to all persons on the list throughout the construction process.

#### 4.1.1 Pre-Construction Compliance Coordination

CalAm is required by the terms of the mitigation measures and the permitting requirements of various other regulating agencies to prepare plans and obtain approval of these documents, in addition to performing various surveys and studies prior to construction. During this pre-construction process, CalAm will conduct meetings, conference calls, and site visits with technical representatives of the CPUC and other agencies, and CalAm's environmental representatives as appropriate. The purpose of the pre-construction coordination process is to discuss document submittal status, document the findings of data reviews and jurisdictional agency approvals, review CalAm submittals, and document the status of mitigation measures as they apply to the Project. The goal of the pre-construction process is to complete all required actions so the CPUC and other agencies, as appropriate, can issue NTP authorizations.

## 4.1.2 Communication Protocol During Construction

### **Daily Communication During Construction**

Many of the problems that come up during construction can be resolved in the field through regular communication between CPUC EMs, CalAm, and construction contractors. Field staff will be equipped with cell phones and will be available to receive phone calls at all times during regular construction hours. A project contact list has been included in Appendix C. The organization chart in Appendix B illustrates the lines of communication to be used during construction. The following provides additional guidelines to ensure effective communication in the field.

#### ***CPUC Environmental Monitors***

The CPUC EM's primary points of contact in the field are CalAm's FS and SMs. The CPUC EMs will contact CalAm's FS and SMs if an activity is observed that conflicts with one or more of the mitigation measures, so that the situation can be corrected. If the CPUC EM cannot immediately reach CalAm's FS and SMs, CalAm's CPM will be contacted to address the problem. Similarly, the CPUC EM will contact CalAm's FS and SMs for information on where construction crews are working, the status of mitigation measures, and schedule forecasts. The CPUC EM may discuss construction procedures directly with the construction contractors as long as a representative from CalAm's Compliance Personnel is present during the discussion. The CPUC EM will contact the designated CalAm representative if a problem is noted that requires action from the contractor. The CPUC EM will not direct the contractor; however, the CPUC EM has the authority to stop work, assuming it is safe to do so, if an activity poses an imminent threat to resources or puts a sensitive resource at undue risk.

#### ***CalAm***

CalAm will provide the CPUC Monitoring Supervisor and EM with a list of construction monitoring personnel and construction supervisory staff to contact regarding compliance incidents. The contact list will include each person's title, responsibility, contact information, and whether their position is segment-specific. The contact list will be updated as new project personnel are assigned to the project and redistributed as necessary. CalAm will prepare and distribute a Weekly Compliance Report for distribution to key project members, including the CPUC. The CPUC Monitoring Supervisor will review the weekly report to ensure that the status of mitigation measures is consistent with observations in the field. Any questions regarding the status of mitigation measures will be directed to the CalAm PM. The Weekly Compliance Report will also be a tool to keep all parties informed of construction progress. Note that Daily Compliance Reports will be prepared by CPUC EMs and Weekly Compliance Reports will be prepared by the CPUC Monitoring Supervisor as described below.

### **Weekly Progress Meetings During Construction**

The CalAm CPM will conduct weekly meetings with construction managers, supervisors, environmental representatives, CPUC EMs, and other appropriate staff to discuss work completed, work anticipated for the following period, and the status of mitigation measures. The meetings also will provide a forum for discussing environmental compliance issues or concerns.

## Site Visit Coordination

Field personnel from both CalAm and CPUC shall coordinate site visits with the CalAm SMs who is familiar with authorized construction activities, project requirements, and any restricted areas (i.e., dangerous conditions, unauthorized work areas or work areas within private properties, or the presence of sensitive resources). Conditions in the field may change rapidly and CalAm field personnel must ensure that all field personnel are adequately informed of restricted areas, parking locations, communication procedures, and site-specific safety risks on an ongoing basis.

CPUC EMs and the Monitoring Supervisor shall conduct routine site inspections. At a minimum, CPUC EMs will notify a designated CalAm FS and SMs prior to visiting the site. If contact cannot be made, CPUC monitoring personnel will inspect open areas of the project site on foot. CPUC field personnel shall at no time enter active construction project boundaries unless authorized or escorted by a member of the CalAm Compliance Team.

### 4.1.3 CalAm Reportable Events

Unanticipated events may occur that impact project personnel, public safety, or resources and may not be observed by the CPUC EM. While these events may not result in a deviation from or violation of a mitigation measure or permit condition, it is important that these events be reported to the appropriate agencies and the CPUC so they are in a position to respond to questions or concerns from the public or managers. Accordingly, the CalAm CPM will immediately report these events to the CPUC EM and to CPUC and other regulatory agencies. The CalAm EPM will submit to the appropriate agency, if any, and to CPUC a final electronic notification characterizing the event, actions taken, and outcomes. Any event that affects, or could potentially affect, Project personnel or public health and safety is immediately reportable and would include the following examples:

- An occurrence that posed or could have posed a risk to public health and safety
- Any event requiring emergency response (police or fire)
- A “near miss” event involving construction equipment and, in the CalAm CPM’s reasonable judgment, had the potential to result in serious bodily harm or death.
- Any fire caused by construction activities
- Inadequate traffic control resulting in an accident
- Any toppled piece of equipment

Any event that impacts, or poses an imminent risk to, a sensitive resource is immediately reportable and would include the following examples:

- Any event a mitigation measure failed to address
- A violation of a permit condition
- Any resource buffer incursion by construction personnel or significant non-compliance incident

- Any directed work stoppage or construction holds
- Discovery of unanticipated resources such as archaeological artifacts outside of known cultural sites

#### 4.1.4 Questions and Clarifications

Questions and the need to clarify project requirements will periodically arise throughout the implementation process. Both CalAm and CPUC shall submit important questions and clarifications in writing via email. Resolutions and any CPUC determinations shall be documented in compliance and monitoring reports, and/or in email correspondence. Questions and clarifications that take an extended period of time to resolve shall be tracked by the CPUC Monitoring Team until a resolution has been reached.

#### 4.1.5 Requests for Documentation

The CPUC Monitoring Team may periodically request written documentation and confirmations from the CalAm Compliance Personnel that will be entered into the project record. Requests for documentation and confirmations shall be submitted via email. If the information will take an extended period of time to gather, both CalAm and CPUC shall agree upon a timeframe to respond, and the request shall be tracked by the CPUC Monitoring Personnel until a resolution has been reached.

#### 4.1.6 Construction Schedule

CalAm shall inform the CPUC Monitoring Team immediately of any delays in the construction schedule as laid out in each approved RFNTP that may affect the Project and implementation of the approved RFNTP.

#### 4.1.7 Dispute Resolution

Disputes or complaints may develop between CalAm and CPUC if there are conflicting interpretations of Project requirements and procedures. It is expected that the MMCRP will reduce or eliminate the potential for disputes; however, disputes may occur even with the best preparation. Any disputes or complaints shall first be addressed informally at the field level between the CPUC EM and CalAm FS and SMs, or during Project progress meetings. Questions may be directed to other members of the CalAm Compliance Personnel and the CPUC Monitoring Team as needed.

If the dispute cannot be resolved informally in the field, the following procedures will be observed for dispute resolution between CPUC staff and the Applicant: Disputes and complaints should be directed to the CPUC PM for resolution. Should this informal process fail, the CPUC PM may initiate enforcement or compliance action to address deviations from the approved project.



## 4.2 Pre-Construction Compliance Verification

Prior to beginning construction, CalAm is required by the terms of the mitigation measures and the permitting requirements of various other regulating agencies to prepare plans and obtain approval of these documents, in addition to performing various surveys and studies prior to construction. The plans, surveys, studies, and other documentation required to be completed by CalAm before construction are listed in the mitigation measure in Section 6.

Other agencies may review documents prior to or concurrent with the CPUC if required by the mitigation measures or permitting requirements. Compliance with all pre-construction mitigation measures presented will be verified prior to construction.

The CPUC third-party monitors, Monitoring Manager, Monitoring Supervisor, and technical experts will review all mitigation plans and reports and provide comments, as applicable. As required by the mitigation measures, resource agencies will also be involved in the review of applicable plans and reports and will provide comments. Comments on these documents will be provided to CPUC to ensure that they adequately accomplish the intended mitigation for impacts and meet the mitigation measure or permit requirements. Based on CalAm's construction plans, CPUC may authorize construction to begin on a phased basis and the CPUC third-party monitors will handle pre-construction compliance review accordingly. CPUC may issue NTPs for construction of each phase separately, as soon as preconstruction compliance is satisfactorily accomplished for that phase.

**IMPORTANT:** Compliance with all pre-construction mitigation measures will be verified prior to construction, and construction may not start on any work package before CalAm receives a written NTP from the CPUC PM and other necessary approvals, if any. In addition, demarcation of approved disturbance areas and any resource exclusion areas must be validated in the field by the CPUC EM prior to any construction activities authorized by the NTP. In general, the CPUC will not issue an NTP until all pre-construction requirements have been fulfilled for a given phase. To save time, CalAm should identify all required additional work space needs for each phase of construction prior to the start of active construction, so that the locations and their use can be included in the NTP.

## 4.3 Notice to Proceed Process

CalAm is required to obtain CPUC authorization prior to initiating project activities through the NTP process. The NTP process involves the CalAm Compliance Personnel submitting an NTP request package to the CPUC Monitoring Team, and the CPUC PM issuing a NTP Authorization Letter. The CPUC will not authorize construction to begin until all pre-construction requirements have been fulfilled for a given phase. To save time, CalAm should identify extra work space needs required for each phase of construction prior to the start of active construction, so that the locations and their use can be included in the NTP. Project activities may be authorized through one or more NTPs for separate project phases as determined necessary by the CalAm Compliance Personnel and the CPUC Monitoring Team. In general, an NTP request must include the following information:

- NTP request number; dated submitted to CPUC; requested approval dated
- Anticipated start and end date for the proposed actions
- Detailed description of the proposed actions requested in the NTP
- Detailed description of the location, including maps, GIS data, photos, and/or other supporting documents. Maps showing all proposed work areas, access roads, and staging areas will be provided.
- Estimate of total new land disturbance associated with the Project
- Anticipated equipment required for construction
- Verification that all mitigation measures have been met, apply, or do not apply to the work covered by the NTP request
- If compliance with some requirements cannot be met prior to NTP issuance, the reasons will be identified and noted in the NTP request
- Up-to-date resource surveys or a commitment to conduct surveys and submit results prior to construction
- Summary list of any previously authorized actions (if applicable) as detailed in NTP Authorization Letters

The CPUC Monitoring Team shall review NTP requests to ensure the proposed actions are consistent with the Final EIR/EIS and final CPUC decision, and to verify compliance with all pre-construction requirements applicable to a given NTP request. The CPUC Monitoring Team may request additional information during the NTP review process as needed. Once it has been determined that all applicable pre-construction requirements have been completed and documented to the satisfaction of CPUC, the CPUC PM will submit an NTP Authorization Letter to the CalAm PM. The NTP Authorization Letter will address any conditions of approval, and include applicable documentation as necessary for the authorized actions.

## **4.4 Compliance Reporting During Construction**

The CPUC EMs will perform compliance inspections throughout construction to ensure compliance with all applicable mitigation measures, plans, and conditions of approval from CPUC. The CPUC EM will document observations in the project area through field notes and digital photography. The photographs will be incorporated in weekly reports and related to a discussion of specific construction or compliance activity. In addition, daily field logs documenting compliance of specific crews, construction activities, or resource protection measures will be maintained. Field logs will be used to prepare weekly reports and to track and update the status of mitigation measures listed in Section 6.

Site visits by CPUC may be coordinated with the CalAm CPM and/or SMs ahead of time, or be unannounced. All visitors, including regulatory agency personnel, must sign-in with the job site safety representative and receive the site safety briefing before entering work sites. .  
Supplemental information provided by CalAm, including pre-construction submittals, survey

reports, weekly reports, and agency correspondence also will be used to verify compliance. Compliance documents and reports will be posted on the CPUC public website, accessible at:

[https://www.cpuc.ca.gov/Environment/info/esa/mpwsp/construction\\_status.html](https://www.cpuc.ca.gov/Environment/info/esa/mpwsp/construction_status.html)

Project documents available on the CPUC public website will include approved NTPs, Minor Project Changes, and plans; Temporary Extra Work Space approvals; and the CPUC weekly reports.

#### 4.4.1 CalAm Weekly Compliance Reports and Checklists

The CalAm compliance team will prepare and distribute a weekly environmental compliance status report for distribution to key team members, including the CPUC. The CPUC EM will review the weekly report to ensure that the status of mitigation measures is consistent with observations in the field. Questions regarding the status of mitigation measures will be directed to the CalAm CPM and/or FS. The weekly environmental compliance status report also will be a tool to keep all parties informed of construction progress.

Prior to the start of monitoring activities, CalAm shall provide a proposed format describing content and organization of Weekly Compliance Reports for CPUC review and approval. The Weekly Compliance Report shall be a condensed, singular report that includes, but is not limited to the following components:

- Clear and specific description of weekly construction activities and work locations
- Current Project completion status
- Monitoring reports describing construction activities monitored with specific Project locations and any findings or compliance incidents
- All non-compliance incidents reported during the subject week, including date, detailed description, and corrective actions implemented
- Summary including locations of preconstruction or focused surveys conducted
- All new sensitive resources identified during surveys or construction monitoring for the subject week
- Update of bird nesting activities and buffer distances
- Summary of special status wildlife or plant relocations
- Any SWPPP-related corrective actions or maintenance observations identified during the subject week, including date, location, description, and resolution
- Any hazardous materials spills defined as reportable by Project mitigation measures and/or plans
- List of personnel trained under the Worker Environmental Awareness Program (WEAP), including names and dates

## 4.4.2 CPUC Compliance Reporting

The CPUC EM will determine whether the observed construction activities are consistent with mitigation measures and project parameters as identified in the Final EIR/EIS. All observations and communications will be noted in a logbook, including photos. Deviations from mitigation measures, or approved plans will be considered non-compliant events and will be documented. Supplemental information provided by CalAm, including pre-construction submittals, survey reports, weekly reports, and agency correspondence also will be used to verify compliance.

## 4.4.3 Incident Reports

Incident Reports for Level 1-3 Incidents shall be prepared by the observing party (either CalAm or CPUC) and submitted to the alternate party within one business day of the observation. Level 1 Incidents will be reported through a brief email from the observing party. Level 2 Incidents will be reported through a Project Memorandum. Level 3 Incidents require preparation of a Non-Compliance Report (NCR). At a minimum, Incident Reports must include the following information:

- Incident Category
- Compliance Level (if applicable)
- Incident Start Date (i.e., date event began, if known, or initial observation date)
- Summary of Incident (i.e., description of the event or observation, personnel present, and actions taken to resolve the issue)
- Resolution Date (if known)

All incidents (Levels 1-3) shall be addressed in MMCRP reports prepared by both CalAm and CPUC (e.g., Daily, Weekly, and Post-Construction Reports), and Incident Reports shall be attached to the MMCRP reports for the applicable period. In addition to Incident Reports, incidents rising to the level of Noncompliance may require preparation of memoranda describing the event in greater detail and corrective actions necessary to bring the project back into compliance.

## 4.5 Incidents and Stop Work Orders

The goal of this MMCRP is to plan for and avoid any non-compliance incidents that could occur during implementation; nonetheless, there is a potential for compliance incidents to arise due to a variety of factors. For the purposes of this MMCRP, compliance incident levels are defined in **Table 4-1** below. This section addresses incidents that may occur and procedures that shall be followed to document them.

### 4.5.1 Incident Categories

Incident categories for the Project include compliance level incidents, Occupational Safety and Health Administration (OSHA)-recordable health and safety incidents, vehicle accidents that are related to Project traffic closures, and public complaints.

## Compliance Level Incidents

CalAm and CPUC are responsible for evaluating compliance and addressing any inadequacies throughout implementation of the MMCRP. Compliance incidents will be documented by assigning one of three compliance levels and associated terms. If all Project requirements are observed being followed adequately, then the Project will be at an acceptable compliance level and no further actions are required. A description of compliance levels that will be used for the Project and examples of compliance level incidents are listed in Table 4-1.

When documenting compliance level incidents, the reporting party shall assign an initial compliance level that appropriately represents the severity of the incident based on factors including, but not limited to, the following:

- Scope of the deviation or violation
- Risk of impact to resources
- Actual impact to resources
- Number of repeated incidents
- How the incident could have been prevented

**TABLE 4-1  
COMPLIANCE LEVELS**

<b>Incident Level, Reporting Term, and Severity</b>	<b>Examples</b>	<b>Action</b>	<b>Follow-up</b>
<p><b>Level 0: Unanticipated Event</b> <i>Definition:</i> An event that is outside the Project's control.</p>	<p>Discovery of previously unknown cultural (archeological resource or feature) or significant paleontological resources.</p> <p>Identification of a special status species not anticipated based on analysis in the FEIR.</p> <p>Encountering previously undocumented subsurface hazardous substances during excavation activities.</p>	<p>The CalAm FS, SMs, or FMs onsite will stop work. CalAm's CPM or assigned designee will inform the CPUC Monitoring Supervisor and any other relevant resource agencies. CalAm CPM will work with the agencies to develop and implement an appropriate solution. The event will be documented in the Daily Report and included in the Weekly Compliance Report.</p>	<p>The CalAm Compliance Team and Contractor staff will implement the solutions as developed in cooperation with the appropriate agencies. Ultimately, the efficacy of the solutions will be documented by the FS, SMs, and FMs as construction activities resume.</p>
<p><b>Level 1: Minor Incident</b> <i>Definition:</i> An event or observation that slightly deviates from project requirements, but does not put a resource at unpermitted risk.</p>	<p>Project personnel used an unapproved access road or turnaround area, but the site was previously disturbed and the action did not put a sensitive resource at risk.</p> <p>Soil or construction material was placed outside of an approved work area, but the material was removed at the end of the day.</p>	<p>An oral warning shall be provided by the CPUC Monitoring Supervisor to CalAm's CPM (or assigned designee). Corrective action shall begin by the next construction day. CPUC Monitoring Supervisor will also briefly document the incident in a follow-up email. A Minor Incident will be included in the Weekly Compliance Report.</p>	<p>If corrective action is not initiated by the next construction day, the CPUC Monitoring Supervisor will elevate the incident to the CPUC Monitoring Manager who will review courses of action available and will notify the CPUC PM if necessary. If allowed to continue, this non-compliance incident could result in a serious impact over time, and result in a Project Memorandum or Non-Compliance Report (NCR).</p>
<p><b>Level 2: Moderate Incident</b> <i>Definition:</i> An event or observation that deviates from project requirements and puts a resource at risk, but is corrected without impacting the resource.</p>	<p>A fuel tank was stored overnight within specified limits of a water body without secondary containment, but did not result in release of hazardous materials.</p> <p>Mobilization of equipment or materials to a previously disturbed work site prior to receiving NTP authorization from CPUC.</p> <p>A diesel-powered vehicle not in use was observed idling for an extended period of time.</p>	<p>A verbal notice shall be given by the CalAm FS, SMs or FMs, followed immediately by written documentation of the incident in a Project Memorandum sent by the CPUC Monitoring Supervisor to CalAm's CPM (or assigned designee). Corrective action shall begin immediately if feasible.</p>	<p>If corrective action is not taken immediately or the corrective action is insufficient, the CPUC EM shall notify the CPUC PM, Monitoring Manager, and Monitoring Supervisor, who will review courses of action available, potentially including issuance of a Project Memorandum, NCR, a Project Stop Work Order, and/or action under the CPUC's CEQA Citation Program.</p>
<p><b>Level 3: Major Incident</b> <i>Definition:</i> An event or observation that violates project requirements and impacts a resource. Repeated Compliance Deviations left unaddressed may also rise to a Level 3 incident.</p>	<p>Vegetation clearing and grading of a work site prior to receiving NTP authorization from CPUC.</p> <p>Soil or construction material was placed outside of an approved work area in an environmentally sensitive area.</p> <p>Erosion control BMPs failed during a storm and sediment was discharged into a sensitive area.</p> <p>Project vehicles entered a sensitive resource exclusion area and damaged a resource.</p>	<p>A verbal notice shall be given to the CalAm FS, SMs, or FMs, followed immediately by a written NCR from the CPUC Monitoring Manager to CalAm's CPM (or assigned designee). Corrective action shall begin immediately. Based on the severity of a given infraction or pattern of noncompliant activity, the CPUC may direct that all or some portion of the work be stopped. The CPUC may also exercise the CEQA Citation Program.</p>	<p>If a shutdown of construction or an activity is ordered, the construction or activity shall not resume until authorized by the CPUC PM in writing. If corrective action is not taken immediately or the corrective action is insufficient, the CPUC EM shall notify the CPUC PM, Monitoring Manager, and Monitoring Supervisor, who will review courses of action available, potentially including a project Stop Work Order and/or action under the CPUC's CEQA Citation Program.</p>

The need to change initially reported compliance levels may arise if the incident level was over or under-reported. The CPUC PM shall make final determinations regarding the appropriate compliance level for each incident as needed, and the CPUC Monitoring Team shall maintain a record of all incidents for the Project that will be analyzed in the CPUC Post-Construction and Final Monitoring Reports. In addition to the levels of compliance described in Table 4-1, the CPUC may note events or observations that, if left unaddressed, could have the potential to affect compliance and become a compliance incident. The CPUC will typically inform CalAm Compliance Personnel of such observations in the field. If such events or observations continue to occur following CPUC's field notification to the CalAm Compliance Personnel, and corrective action is not taken within the stated period, a Project Memorandum (written warning) or Non-Compliance Report (NCR) may be issued by the CPUC. A non-compliant event regarding environmental resources may involve other agencies, in which case, the CPUC EM will:

- Confirm that CalAm has informed the applicable resource agency when non-compliant actions have the potential to harm an environmental resource or species (outside the reporting process associated with incidental takes as permitted by the resource agency).
- If timely notification is not made by CalAm, the CPUC EM will contact the applicable resource agency.

If permit or resources issues are involved, the CPUC and/or resource agencies may order work stoppages and the development of strategies for successful resource/species protection, consistent with the applicable permit or mitigation measure.

## Health and Safety Incidents

CalAm's and CPUC's most important responsibility is maintaining safe working conditions and protecting the public, including workers from exposure to hazards related to the Project. Accordingly, health and safety incident reporting by CalAm will be conducted consistent with the "self-identified potential violation" requirements of the CPUC's Safety Citation Program<sup>2</sup> and the Accident Reporting Requirements.<sup>3</sup> Specific types of health and safety incidents to be reported under these programs are described below:

- A potential violation that poses a significant safety threat to the public and/or utility staff, contractors, or subcontractors.
- Any instance of fraud, sabotage, falsification of records and/or any other instances of deception by CalAm's personnel, contractors, or subcontractors that caused or could have caused a potential violation, regardless of the outcome.
- Incidents that (a) result in fatality or personal injury rising to the level of in-patient hospitalization and attributable or allegedly attributable to utility owned facilities; or (b) are the subject of significant public attention or media coverage and are attributable or allegedly attributable to utility facilities; (c) involve damage to property of the utility or others estimated to exceed \$20,000 that are attributable or allegedly attributable to utility owned facilities.

<sup>2</sup> See D.16-09-055, Appendix A, at p. 8, Section G.3.b, criteria 1 and 3, <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M167/K781/167781364.PDF>

<sup>3</sup> See [http://docs.cpuc.ca.gov/PUBLISHED/FINAL\\_DECISION/55906-05.htm#TopOfpage](http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/55906-05.htm#TopOfpage)

CalAm CPM will notify the CPUC PM of these types of health and safety incidents within one business day of learning about the incident and provide an incident report with the Weekly Compliance Report for the Project unless additional time is needed and the CPUC agrees to an extension for submitting the final incident report. CalAm will also notify the CPUC about traffic accidents within construction traffic control areas. In addition to the incidents described above, the CPUC may request that CalAm report on other health and safety incidents that do not fall into one of the above-listed categories if the CPUC determines that such reporting is necessary to ensure construction is completed in a safe manner. Health and safety incidents will not reflect negatively on CalAm's environmental compliance record unless a specific project requirement or plan requirement was violated.

## **Public Complaints**

The public may take issue with one or more aspects of the Project. CalAm will maintain a Project Information Line during construction and will assign a dedicated Public Liaison to the Project that will be responsible for tracking and handling public complaints. Public complaints may be submitted formally to CalAm or CPUC through email or the Project Information Line. Members of the public that have questions, concerns, or complaints on the Project will be directed to the CalAm Public Affairs Manager and Project Information Line, and contact information will be supplied as requested. Complainants who approach field personnel at the Project site will be referred to the Project Information Line to formally submit their complaint. CalAm shall work with the CPUC on best practices for handling public complaints that are received. The Public Liaison will respond to public complaints within 24 hours upon receipt. CPUC shall notify CalAm of public complaints received by the CPUC to facilitate CalAm's timely response to these complaints and CalAm will add these to the electronic complaint log. CalAm shall make every reasonable effort to work with members of the public and correct actions leading to complaints, as feasible. CalAm shall also provide monthly summaries of the public complaints and how each complaint was addressed. The CPUC PM will coordinate with the CalAm CPM on the adequacy of corrective actions or additional measures to be implemented, as needed. Public complaints will not reflect negatively on CalAm's environmental compliance record unless a specific project requirement or plan requirement was violated.

### **4.5.2 Identifying Incidents**

The CalAm FS, SMs, FM, and CPUC EMs are primarily responsible for identifying and initially reporting incidents during inspection of the Project site; however, compliance incidents may also be observed by other personnel in the field or during review of project reports. The CPUC Monitoring Team may also identify compliance incidents through review of CalAm's compliance reporting. CalAm shall make every attempt to self-report any compliance incidents that occur.

### **4.5.3 Notification**

CalAm and CPUC shall notify one another of compliance incidents within one business day of the initial observation so compliance can be adequately addressed. Response procedures do not need to be finalized when initial notification is provided. Jurisdictional agencies may also require notification if incidents are documented that relate to their jurisdiction over the Project. The



CalAm CPM or designee shall make all such notifications to each jurisdictional agency and will provide copies to the CPUC of official notifications and submittals provided to other agencies or advise CPUC of notifications that were made to other agencies, as necessary. If CPUC believes additional notifications are required, the CPUC may direct CalAm to provide those notifications or make those notifications in coordination with CalAm Compliance Personnel.

#### 4.5.4 Stop Work Orders

When it is safe to do so, any CalAm Compliance Personnel or the CPUC Monitoring Team has the authority to issue Stop Work Orders to temporarily halt or redirect project activities if a sensitive resource is put in undue risk beyond previously authorized levels. In addition, the CPUC Monitoring Team may also stop or redirect work if unauthorized project activities are observed, such as use of work area that has not been approved or if significant compliance risks remain unresolved. The CPUC PM will make any final determinations regarding Stop Work Orders for the project.

#### 4.5.5 CEQA Citation Program

CPUC may exercise the CEQA Citation Program adopted by the CPUC in Resolution E-4550. The program delegates authority to CPUC staff to draft and issue citations and levy fines for non-compliance with a PTC or CPCN. The Resolution allows CPUC staff to efficiently issue fines when needed to quickly address non-compliance incidents that are occurring in the field.

### 4.6 Project Changes

At various times throughout project construction (following approval of final design plans), changes to the Project requirements may be needed to facilitate construction or provide more effective protection of resources. When changes are necessary for specific field situations, CalAm and CPUC, in consultation with the applicable resource agencies, will work together to find solutions that avoid conflicts with adopted mitigation measures.

#### 4.6.1 Minor Project Refinements

The CPUC PM, along with the CPUC Monitoring Team, will ensure that any process, to consider minor project changes that may be necessary due to final engineering or variances or deviations from the procedures identified under the monitoring program, is consistent with CEQA requirements.

- No project changes will be approved by the CPUC PM if they:
  - would be located outside of the geographic boundary of the project study area,
  - create new or substantially more severe significant impacts, or
  - conflict with any mitigation measure or applicable law or policy.
- Minor project changes are strictly limited to changes that:
  - will not trigger other permit requirements unless the appropriate agency has approved the change, and

- clearly and strictly comply with the intent of the mitigation measure or applicable law or policy.

This determination is ministerial, and shall be made by the CPUC PM. CalAm must seek any other project changes by a Petition for Modification (PFM). Requests for staff approval of a minor project change must be made in writing and should include the following:

- A detailed description of the proposed minor changes, including an explanation of why the refinements are necessary, and a reference to the approved documents.
- Photos, maps, GIS data, and other supporting documentation illustrating the difference between: the existing conditions in the area, the approved project, and the proposed minor changes.
- The potential impacts of the proposed minor changes, including a discussion of each environmental issue area that could be affected by the minor changes with accompanying verification that there will be no substantial increase in the severity of any previously identified significant impacts to resources affected by the project and no new significant impacts, after application of previously adopted mitigation.
- Whether the minor changes conflict with any applicant proposed measures or mitigation measures.
- Whether the minor changes conflict with any applicable guideline, ordinance, code, rule, regulation, order, decision, statute or policy.
- Water/wetland/storm water related resource information if the minor changes would result in any additional land disturbance, road distance or width, changes to jurisdictional delineation of waters, or changes to water protection best management practices.
- Date of expected construction at the minor changes site area.

The CPUC PM may request additional information or a site visit in order to process the request. Possible examples of changes that may be approved by staff after final engineering include, but are not limited to:

- Adjusting the alignment of a project within the study area that was used in the original environmental analysis to avoid unanticipated impacts related to cultural artifacts, buried utility infrastructure, hazardous and toxic substances, and other land use impacts including effects on homeowners, so long as the adjustment does not create a new significant impact or a substantial increase in the severity of a previously identified significant impact.
- Adjusting the alignment of a project within the study area that was used in the original environmental analysis to avoid or adapt to conditions on the ground that vary from the conditions that existed at the time of the original environmental analysis, so long as the adjustment does not create a new significant impact or a substantial increase in the severity of a previously identified significant impact.

**IMPORTANT:** To initiate a project minor changes request, CalAm will prepare the appropriate supporting documentation and submit by email (electronic copy) to the CPUC PM with a copy to the CPUC Monitoring Manager. As soon as reasonably possible, the CPUC Monitoring Team will review the request to ensure that all of the information required to process the minor project

change is included, and then forward the request to the CPUC PM for review and approval. The CPUC PM may request a site visit from the CPUC CPM, or may request additional information to process the request. In some cases, project minor changes may require approval by jurisdictional agencies as well. All approved minor change requests will be tracked in tabular format in the weekly reports.

Should a project change require a PFM, supplemental environmental review under CEQA may be required.

## 4.6.2 Temporary Extra Work Space

For the purposes of this MMCRP, Temporary Extra Work Space (TEWS) is defined as a preexisting work space (i.e., no site preparation is required) that would be used by CalAm during construction for a period of up to 60 days, and that was not specifically identified and evaluated during the CEQA process. Anything required to be utilized for a period longer than 60 days will require a minor project change approval.

In the event that CalAm determines a need for a construction TEWS, it must submit such a request to the CPUC, consistent with the communication protocol. CalAm will not be permitted to use a TEWS prior to receiving written authorization from the CPUC. If appropriate, CalAm will also send a copy of the TEWS to affected jurisdictional agencies.

CalAm must demonstrate that:

- 1) The TEWS is located in a disturbed (void of vegetation) area with no sensitive resources or land uses onsite or within proximity of the proposed work space such that they may be significantly impacted by the work,
- 2) No ground-disturbing activities or site improvements will occur,
- 3) CalAm has permission of the applicable landowner (e.g., municipality or private) to use the work space, and
- 4) Use of the TEWS will not result in any significant environmental impacts.

Following is a list of the specific information that CalAm would be required to submit with its TEWS request:

- Date of request
- Location of the TEWS (detailed description, including maps if required)
- Property owner of TEWS
- An explanation of the need for the TEWS
- An analysis that demonstrates no new significant impacts will result from use of the TEWS including: compaction contributing to runoff rates or other stormwater/watershed effects; observed existing impacts to the site, such as old oil spills or other potentially hazardous or polluting substances; abandoned vehicles, equipment, or other materials; or other sensitive resources.

- Biological surveys (prior to construction)
- Cultural resource survey if appropriate (if site is not paved)
- Duration and dates of expected use of the TEWS
- Details of the expected condition of the site after use

## **4.7 Compliance Tracking**

Compliance with mitigation requirements will be tracked by the CPUC. Important project procedures, such as formal requests and approvals, as well as incidents, will also be tracked throughout the project for record keeping and post-project analysis.

CPUC will track other important information for the project record as part of the CPUC-prepared Monthly Monitoring Summary Report, including NTP and MPR requests and approvals, resolutions to important compliance risks that require follow-up, and documented incidents.

## CHAPTER 5

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# Records Management

Detailed weekly reports would be prepared and submitted by the CPUC environmental compliance monitoring team. These would include detailed information on construction activities, compliance activities observed by the Environmental Monitors and others documented by CalAm, any issues and their resolution, and photographs of relevant activities and conditions.

It is assumed that a database would be employed on this project. CPUC Environmental Monitors would have access to the reports and the database. Construction is not allowed to start in a particular area until the required pre-construction surveys and flagging/staking are completed per the MMCRP, and the CPUC environmental monitor has validated compliance. CalAm is to provide the CPUC with written weekly and annual reports of the project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the project. Weekly status reports will be filed and used by the CPUC Monitoring Manager to prepare a final environmental compliance report following the completion of construction. The final report will provide an overview of construction and a discussion of environmental compliance and lessons learned.

A publicly accessible website for the Project is maintained by the CPUC to make available current versions of reports and other documents prepared for mitigation compliance. The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available by the CPUC for public inspection on request, consistent with critical infrastructure requirements, requirements to protect cultural resources, and General Order (G.O.) 66-C. In order to facilitate the public's awareness, the CPUC will post this MMCRP document, weekly reports, and other pertinent Project documents on the CPUC public website. Other monitoring compliance reports, copies of permits, and documents will be available in their final form on the Project website once they are approved by the CPUC or other permitting agencies. Access to Critical Energy Infrastructure Information (CEII) documentation, the location of protected cultural resources, and other information meeting the standards for non-disclosure set forth in G.O. 66-C will not be available on the public website.

The CPUC public website is accessible at: [https://www.cpuc.ca.gov/Environment/info/esa/mpwsp/construction\\_status.html](https://www.cpuc.ca.gov/Environment/info/esa/mpwsp/construction_status.html)

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# CHAPTER 6

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## Mitigation Monitoring Program Tables

### 6.1 Tracking Tables

Appendix E presents the mitigation measures included in the Final EIR/EIS MMRP. The mitigation measures deemed applicable to implementation of a phase of the project will be presented in each RFNTP for CPUC approval. The CPUC will use expanded versions of the mitigation measure tables in the MMRP to assess those measures in an approved RFNTP to accurately track the status of mitigation measures during the pre-construction planning, construction monitoring, post-construction monitoring, and operation and maintenance sequences of the project. During construction, a copy of the mitigation measure table with measures to be implemented for an approved RFNTP during construction will be maintained by the CalAm CPM, and all supervisory staff working on the project should be familiar with its contents. In addition, copies of all applicable plans compiled prior to construction as a result of the pre-construction measures shall also be kept on-site and all supervisory staff working on the project should be familiar with their contents.

### 6.2 Effectiveness Review

The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined in Section 4.2. If in review the CPUC determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, then the CPUC in coordination with the jurisdictional agency(ies) may impose additional reasonable conditions to effectively mitigate these impacts. These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

### 6.3 Mitigation Measures

The mitigation measures in the MMRP constitute the project's environmental requirements and will be used to determine compliance with the MMCRP. The tables (separated by environmental issue area) provided with each RFNTP and approved by the CPUC will indicate the applicable resource of concern, the measure to be implemented, the monitoring requirement, and when the measure is to be implemented. As stated above, applicable mitigation measures in tables provided with each RFNTP will be sorted and divided into pre-construction measures, measures to be implemented during construction, and post-construction mitigation measures.

During construction, a copy of the mitigation measure tables with measures to be implemented during construction, as well as all applicable plans, should be kept with each construction crew,

stored in a laptop, tablet, or binder, and all supervisory staff working on the project should be familiar with its contents. In addition, copies of all applicable plans compiled prior to construction as a result of the pre-construction measures shall also be kept with each crew, stored in a laptop, tablet, or binder, and all supervisory staff working on the project should be familiar with their contents. Each RFNTP will include a summary of the timing requirements for each applicable mitigation measure.

Certain mitigation measures require project-wide plans and other documents applicable to each of the project components. These plans, as available, are presented in Appendix F.



# APPENDICES

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Appendix A. FEIR Figures and Tables (as referenced in this document)

Appendix B. MPWSP Roles and Responsibilities Organizational Chart

Appendix C. CalAm Field Monitors and Contact Information

Appendix D. List of MPWSP Permitting Agencies

Appendix E. Project Mitigation Measures

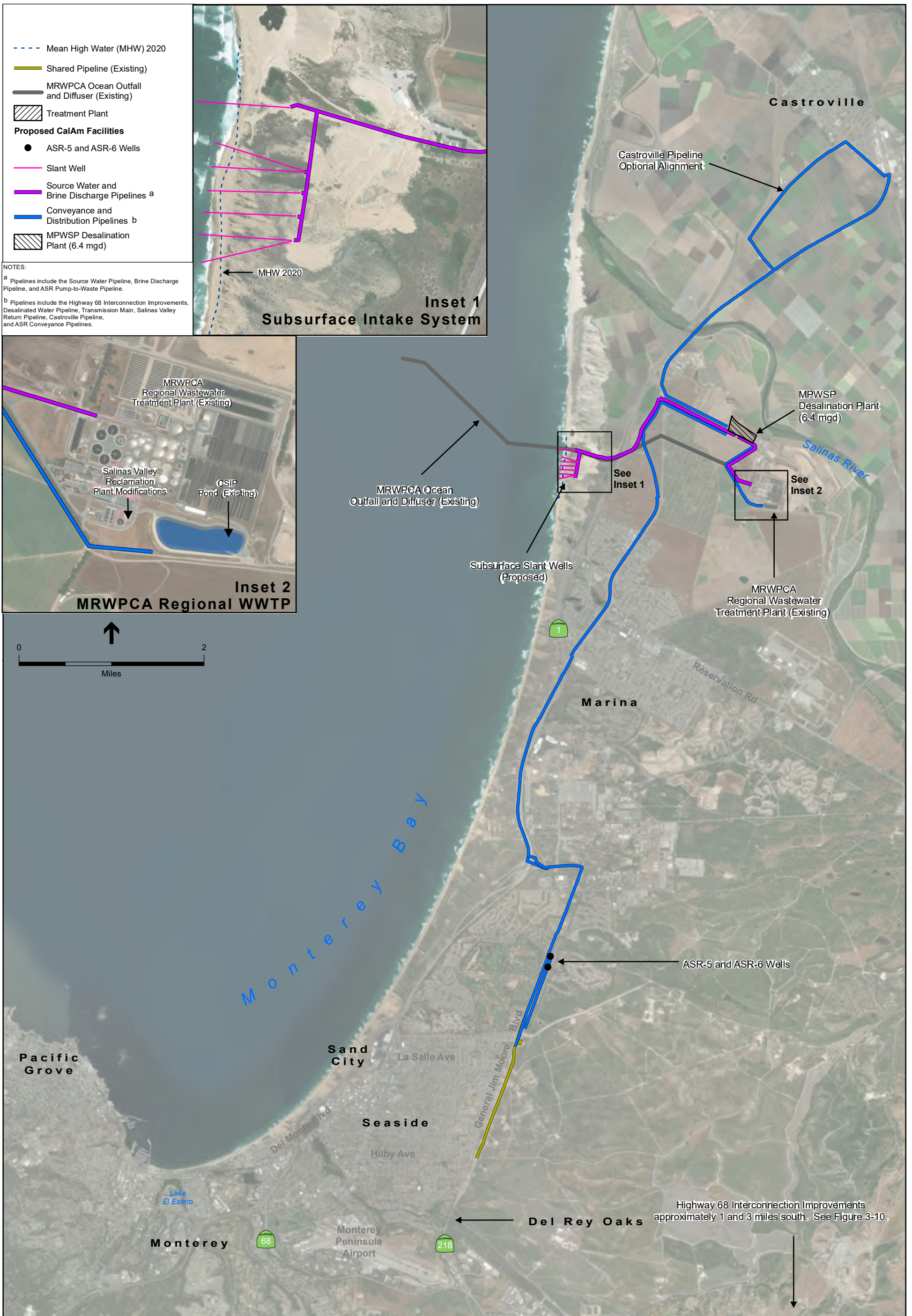
Appendix F. Project-wide Plans and Other Documentation

Appendix F-1 – Archaeological Monitoring Plan (Confidential)

# Appendix A

## FEIR Figures and Tables

(as referenced in this document)





**TABLE 5.4-9  
ALTERNATIVE 5A FACILITIES**

Facility	Description
<b>Intake System</b>	
<p><b>Subsurface Slant Wells</b> (Construction technology is same as proposed project)</p> <p>Approximately 15.5 mgd of water drawn from beneath the ocean floor in MBNMS for use as source water for the desalination plant.</p>	<ul style="list-style-type: none"> <li>• Seven slant wells located at the CEMEX site, extending offshore beneath Monterey Bay (the conversion of an existing test slant well into a permanent well plus six new wells at five new well sites) into MBNMS, with up to five wells operating at any given time and two wells maintained on standby</li> <li>• The slant wells would be grouped into six well sites: three sites with one well each and two sites with two wells. Each well would have a wellhead and mechanical piping vault (meter, valves, and gauges); each well site would have one electrical enclosure, and one pump-to-waste basin (same as proposed project).</li> <li>• Well length, screens, pumps and concrete pads would be the same as described for the proposed project well sites 1 through 5.</li> </ul>
<p><b>Source Water Pipeline</b> Conveys the combined source water from the slant wells to desalination plant.</p>	<ul style="list-style-type: none"> <li>• 2.2-mile-long, 42-inch-diameter pipeline</li> <li>• Two hydraulic surge tanks would be located near the collector pipe/Source Water Pipeline connection point, south of the CEMEX access road and inland of the dunes</li> </ul>
<b>Desalination Facilities</b>	
<p><b>Pretreatment System</b> Would treat source water to remove suspended and dissolved contaminants</p>	<ul style="list-style-type: none"> <li>• Pressure filters or multimedia gravity filters would be housed within a 6,000-square-foot pretreatment building</li> <li>• Two 300,000-gallon backwash supply and filtered water equalization tanks</li> <li>• Two 0.25-acre, 6-foot-deep lined backwash settling basins with decanting system</li> </ul>
<p><b>Reverse Osmosis System</b> Would remove salts and other minerals from pretreated source water</p>	<ul style="list-style-type: none"> <li>• Dual-pass RO system consisting of four active modules and one standby module, with each module producing 1.6 mgd of “permeate” (the purified water produced through the RO membrane)</li> <li>• UV disinfection system (if required)</li> <li>• The RO and post-treatment systems and chemical storage tanks would be housed within a 30,000-square-foot process and electrical building</li> </ul>
<p><b>Post-treatment System</b> Would adjust the hardness, pH, and alkalinity of the desalinated product water and disinfect the water in accordance with drinking water requirements</p>	<ul style="list-style-type: none"> <li>• Chemical feed lines and injection stations (for carbon dioxide, lime, sodium hydroxide, phosphate-based corrosion inhibitor, and sodium hypochlorite)</li> </ul>
<p><b>Chemical Storage</b> The capacity would range from less than 5,000 gallons to 20,000 gallons, depending on the treatment chemical</p>	<ul style="list-style-type: none"> <li>• Chemical storage tanks with secondary containment</li> <li>• Sumps and sump pumps</li> </ul>
<p><b>Administrative Building</b> Would house restrooms, locker rooms, break rooms, conference rooms, electrical controls, laboratory facilities, equipment storage and maintenance, and electrical service equipment</p>	<ul style="list-style-type: none"> <li>• 4,000- to 6,000-square-foot building</li> </ul>

**TABLE 5.4-9 (Continued)  
ALTERNATIVE 5A FACILITIES**

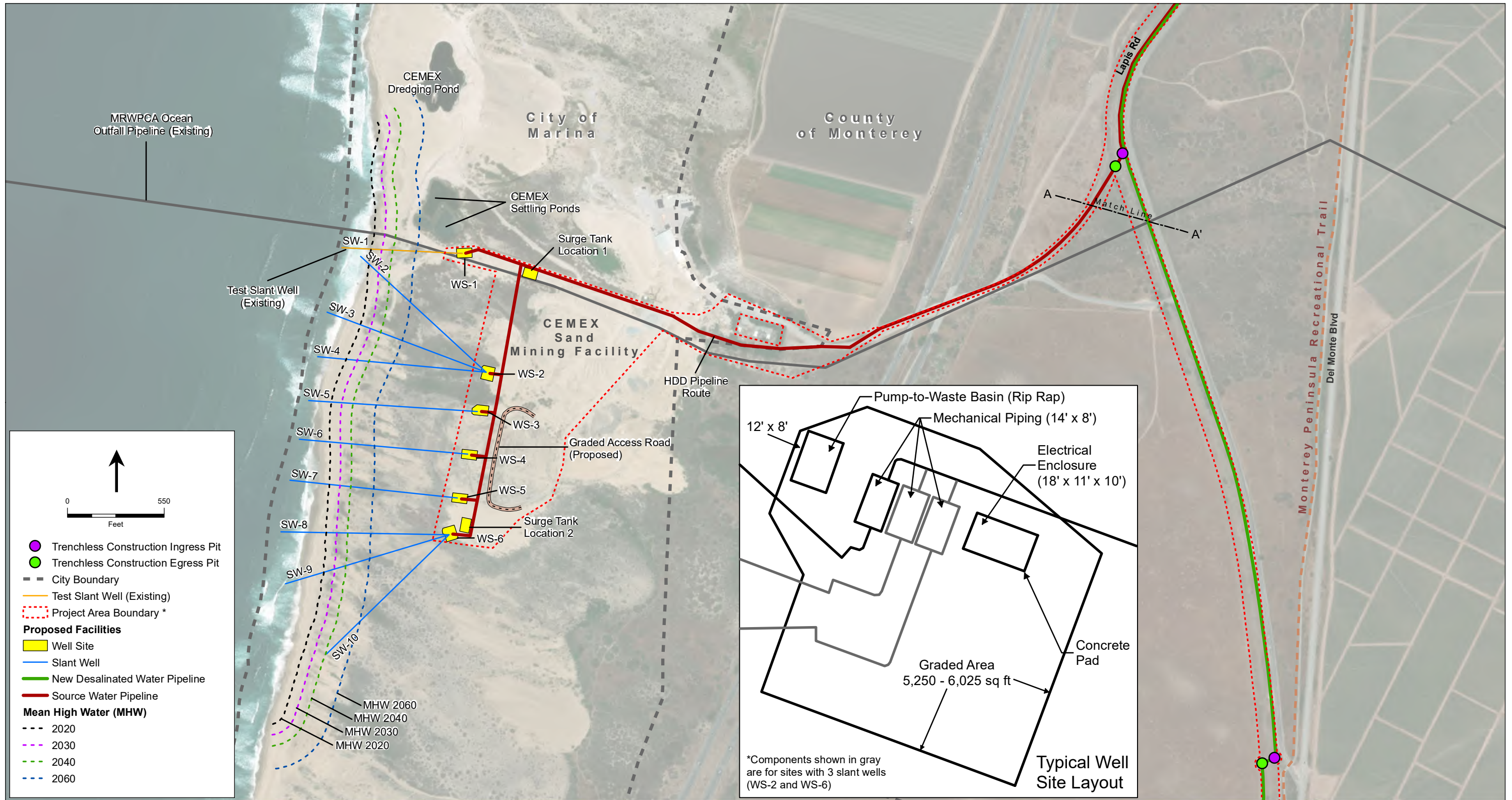
Facility	Description
<b>Brine Storage and Disposal Facilities</b>	
<p><b>Brine Storage and Disposal</b></p> <p>Brine concentrate produced during the RO process would be conveyed to the brine storage basin located at the MPWSP Desalination Plant before it is conveyed to the wastewater treatment plant for disposal into waters of MBNMS</p>	<ul style="list-style-type: none"> <li>• 3-million-gallon brine storage basin</li> <li>• 3,900-foot -long, 36-inch-diameter Brine Discharge Pipeline</li> </ul>
<p><b>MRWPCA Ocean Outfall Pipeline and Diffuser (existing)</b></p> <p>Would convey brine from the wastewater treatment plant to the existing ocean outfall pipeline in MBNMS, which terminates at a diffuser located offshore that would discharge the concentrate into Monterey Bay</p>	<ul style="list-style-type: none"> <li>• 2.3-mile long, 60-inch-diameter pipe (onshore portion)</li> <li>• 2.1-mile-long, 60-inch-diameter pipe (offshore portion)</li> <li>• 1,100-foot-long diffuser with 172 ports (129 ports are open and 43 are closed), each 2 inches in diameter and spaced 8 feet apart on alternating sides</li> </ul>
<b>Desalinated Water Conveyance and Storage Facilities</b>	
<p><b>Treated Water Storage Tanks</b></p> <p>Would serve as holding tanks from which water would be pumped to either the CalAm water system, the existing CSIP pond or the Castroville Pipeline.</p>	<ul style="list-style-type: none"> <li>• Two 103-foot-diameter, 1,750,000-gallon aboveground storage tanks (providing a total combined storage volume of 3.5 million gallons)</li> </ul>
<p><b>Desalinated Water Pumps</b></p> <p>Would pump desalinated product water to either the: 1) CalAm water system or; 2) CCSD and/or CSIP as Salinas Valley return flows</p>	<ul style="list-style-type: none"> <li>• Two 3.2 mgd capacity, 400-horsepower pumps and two 1.6 mgd capacity, 200-horsepower pumps to pump water through the Desalinated Water Pipeline to the CalAm water system</li> <li>• Two 1.4 mgd, 10-horsepower pumps to pump water through the Salinas Valley Return Pipeline CSIP Pond or the Castroville Pipeline to CCSD</li> </ul>
<p><b>New Desalinated Water Pipeline</b></p> <p>Would convey desalinated product water from the treated water storage tanks at the MPWSP Desalination Plant to the new Transmission Main at Reservation Road</p>	<ul style="list-style-type: none"> <li>• 3.3-mile-long, 36-inch-diameter pipeline</li> </ul>
<p><b>New Transmission Main</b></p> <p>Would convey desalinated product water between the Desalinated Water Pipeline at Reservation Road and ASR facilities at General Jim Moore Boulevard</p>	<ul style="list-style-type: none"> <li>• 6-mile-long, 36-inch-diameter force main</li> </ul>
<p><b>Carmel Valley Pump Station</b></p> <p>500-square-foot facility that would provide the additional water pressure needed to pump through the existing Segunda Pipeline into Segunda Reservoir</p>	<ul style="list-style-type: none"> <li>• 3 mgd, 100 hp pump station</li> </ul>

**TABLE 5.4-9 (Continued)  
ALTERNATIVE 5A FACILITIES**

Facility	Description
<b>Desalinated Water Conveyance and Storage Facilities (cont.)</b>	
<p><b>Castroville Pipeline</b></p> <p>Would convey desalinated product water from the MPWSP Desalination Plant to the Castroville Seawater Intrusion Project (CSIP) distribution system and the Castroville Community Services District (CCSD) Well #3</p> <ul style="list-style-type: none"> <li>• Product water would be delivered to the CSIP system via a new connection point located approximately halfway along the pipeline alignment at Nashua Road and Monte Road</li> <li>• At the northern pipeline terminus, product water would be delivered to the CCSD at Del Monte Avenue and Merritt Street</li> </ul>	<p>4.5-mile-long, 12 inch-diameter pipeline extending from MPWSP Desalination Plant to Castroville (see <b>Figures 3-11</b> and <b>3-12</b>)</p>
<p><b>Pipeline to CSIP Pond</b></p> <p>Would convey desalinated product water from the MPWSP Desalination Plant to the CSIP pond for subsequent delivery to agricultural users in the Salinas Valley.</p>	<p>1.2-mile-long, 12-inch-diameter pipeline (see <b>Figure 3-5</b>)</p>
<p><b>Interconnection Improvements for State Route 68 Satellite Systems</b></p> <p>a) Ryan Ranch–Bishop Interconnection</p> <p>b) Main System–Hidden Hills Interconnection</p> <p>Would allow MPWSP supplies to be conveyed to the Ryan Ranch, Bishop, and Hidden Hills water systems</p>	<p>a) 1.1-mile-long, 8-inch-diameter pipeline</p> <p>b) 1,200-foot-long, 6-inch-diameter pipeline</p>
<b>ASR System</b>	
<p><b>Six ASR Injection/Extraction Wells (four existing wells and two proposed):</b></p> <ul style="list-style-type: none"> <li>• ASR-1 and ASR-2 Wells (existing)</li> <li>• ASR-3 and ASR-4 Wells (existing)</li> <li>• ASR-5 and ASR-6 Wells (proposed)</li> </ul> <p>Would be used to inject Carmel River supplies and desalinated product water into the Seaside Groundwater Basin for storage; during periods of peak demand, would be used to extract the stored water for delivery to customers</p>	<ul style="list-style-type: none"> <li>• Two proposed 1,000-foot-deep injection/extraction wells (ASR-5 and ASR-6 Wells) with a combined injection capacity of 2.2 mgd and extraction capacity of 4.3 mgd</li> <li>• Four existing injection/extraction wells (Phase I and II wells)</li> </ul>

**TABLE 5.4-9 (Continued)  
 ALTERNATIVE 5A FACILITIES**

Facility	Description
ASR System (cont.)	
<p><b>ASR Pipelines:</b></p> <ol style="list-style-type: none"> <li>1. ASR Recirculation Pipeline</li> <li>2. ASR Conveyance Pipeline</li> <li>3. ASR Pump-to-Waste Pipeline</li> </ol> <p>ASR Recirculation pipeline would be used to convey water from existing conveyance pipelines and infrastructure at Coe Avenue and General Jim Moore Boulevard to the new ASR-5 and ASR-6 Wells for injection</p> <p>ASR Conveyance Pipeline would be used to convey extracted ASR water supplies to the existing infrastructure at Coe Avenue/General Jim Moore Boulevard</p> <p>ASR Pump-to-Waste Pipeline would convey backflush effluent produced during routine maintenance of the ASR-5 and ASR-6 Wells to the existing Phase I ASR settling basin.</p>	<ul style="list-style-type: none"> <li>• Three parallel 0.8-mile-long, 16-inch-diameter pipelines</li> </ul>



NOTE:  
\*Project area boundary refers to the area within which all construction related disturbance would occur.

SOURCE: ESA, 2016

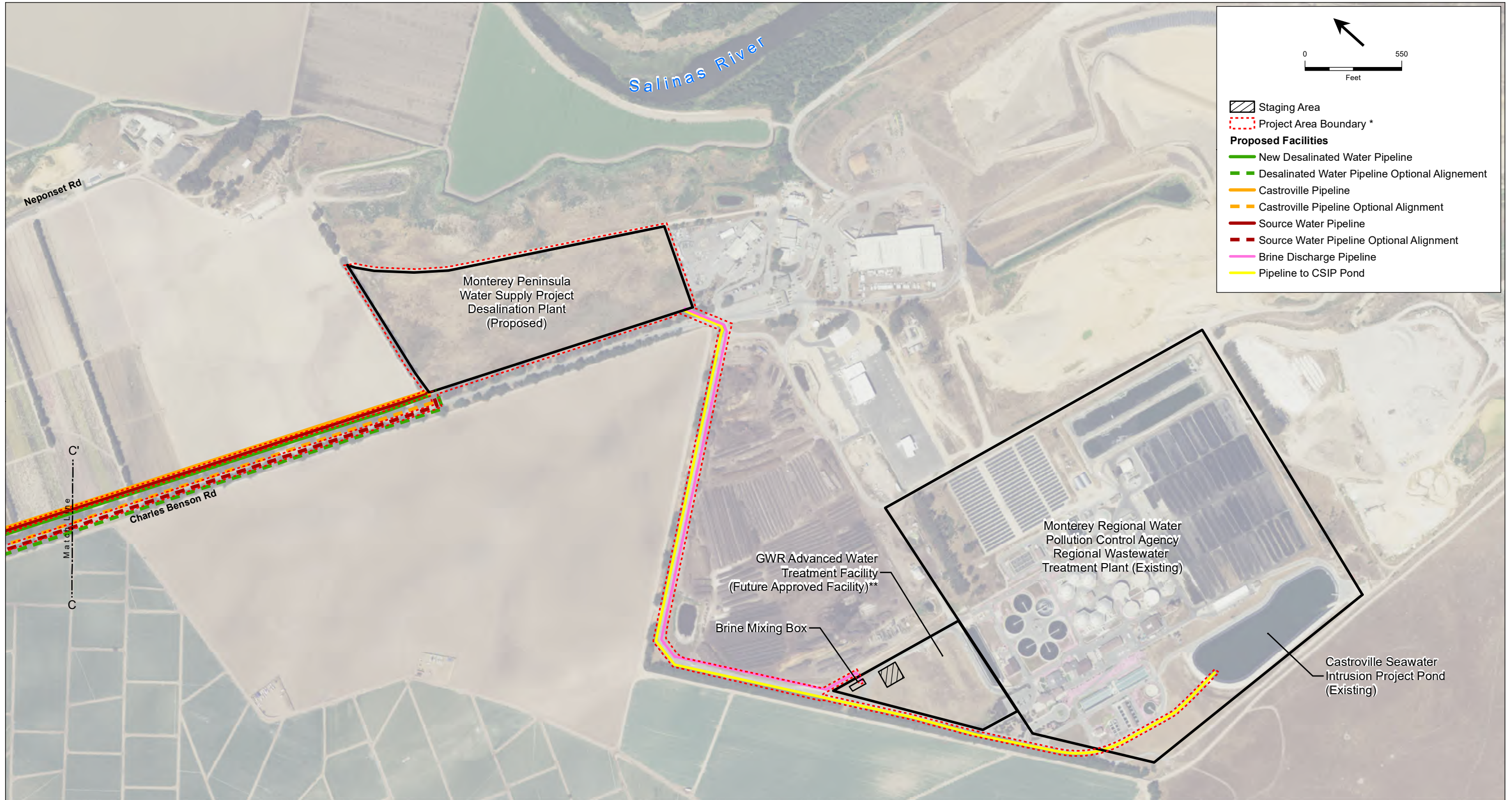




NOTE:  
\*Project area boundary refers to the area within which all construction related disturbance would occur.

SOURCE: ESA, 2016





NOTES:  
 \*Project area boundary refers to the area within which all construction related disturbance would occur.  
 \*\* This facility was approved by MRWPCA & MPWMD in October 2015 as part of the Pure Water Monterey Groundwater Replenishment Project. The Construction schedule for this facility is currently unknown.

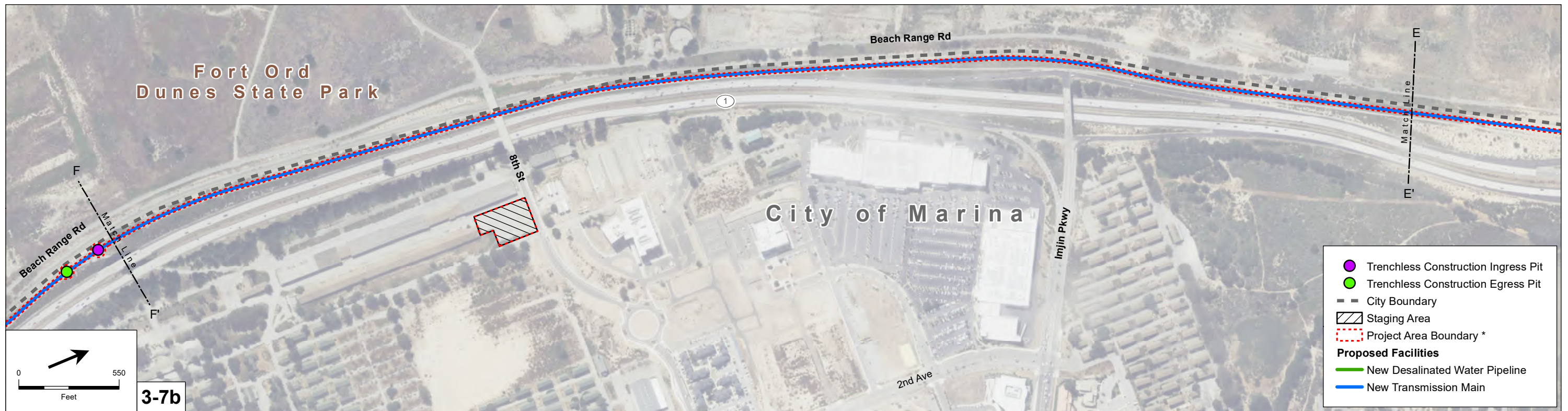
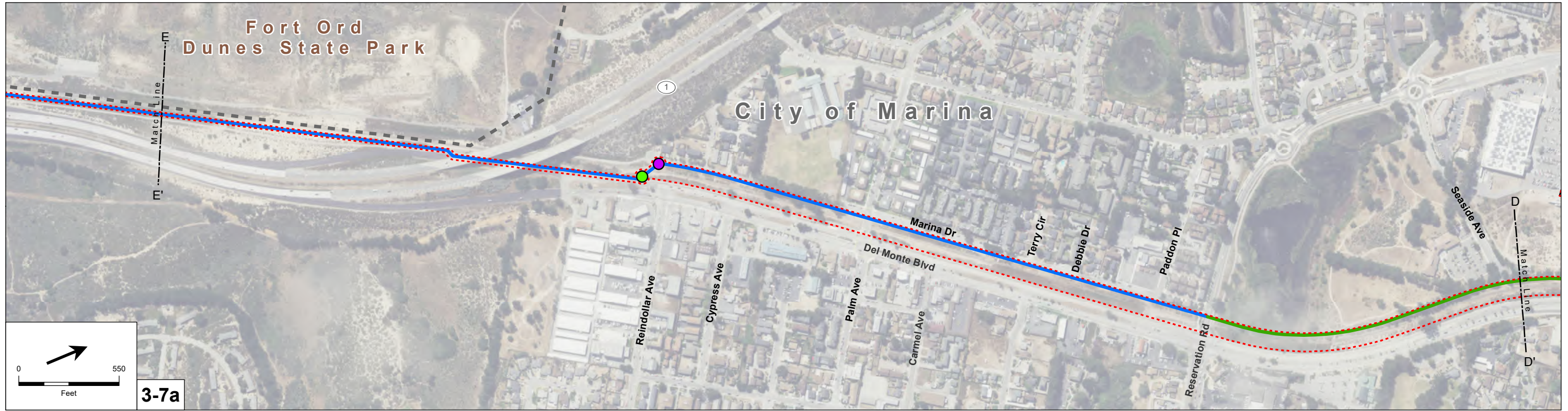




NOTE:  
\*Project area boundary refers to the area within which all construction related disturbance would occur.

SOURCE: ESA, 2016





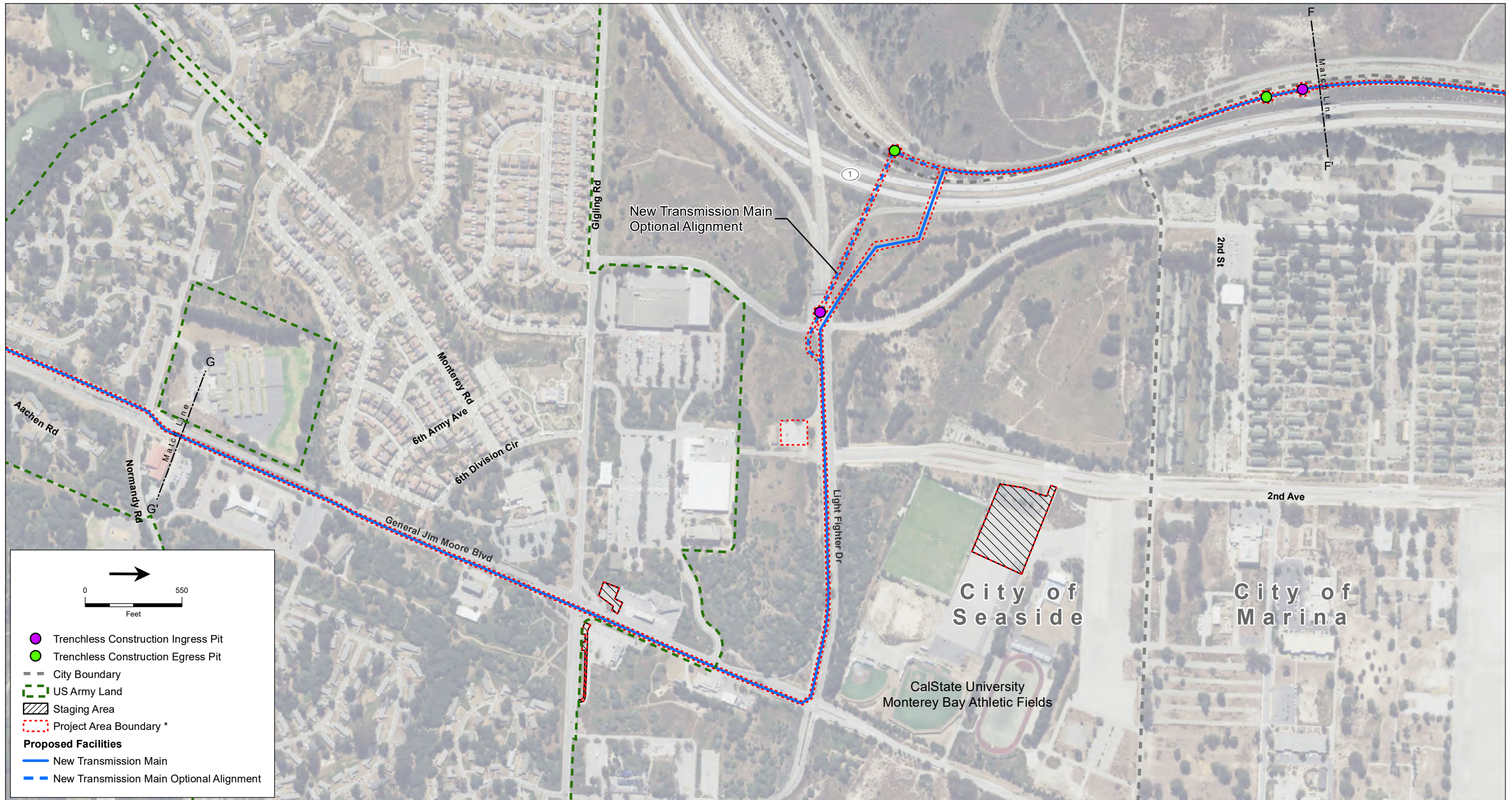
- Trenchless Construction Ingress Pit
- Trenchless Construction Egress Pit
- City Boundary
- Staging Area
- - - Project Area Boundary \*
- Proposed Facilities**
- New Desalinated Water Pipeline
- New Transmission Main

NOTE:  
 \*Project area boundary refers to the area within which all construction related disturbance would occur.

SOURCE: ESA, 2016

205335.01 Monterey Peninsula Water Supply Project  
**Figure 3-7**  
 New Transmission Main - City of Marina

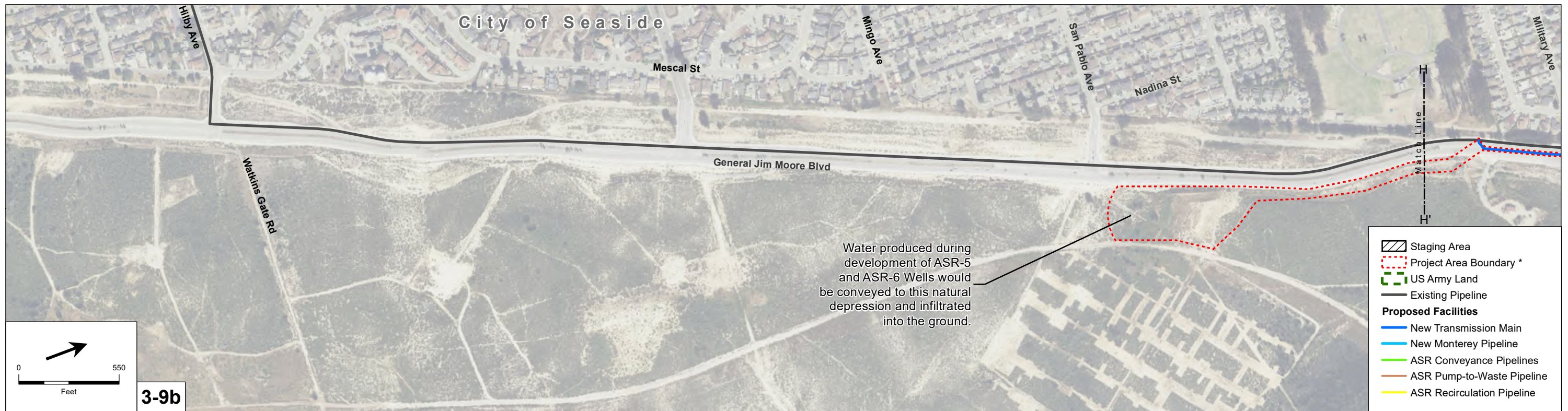
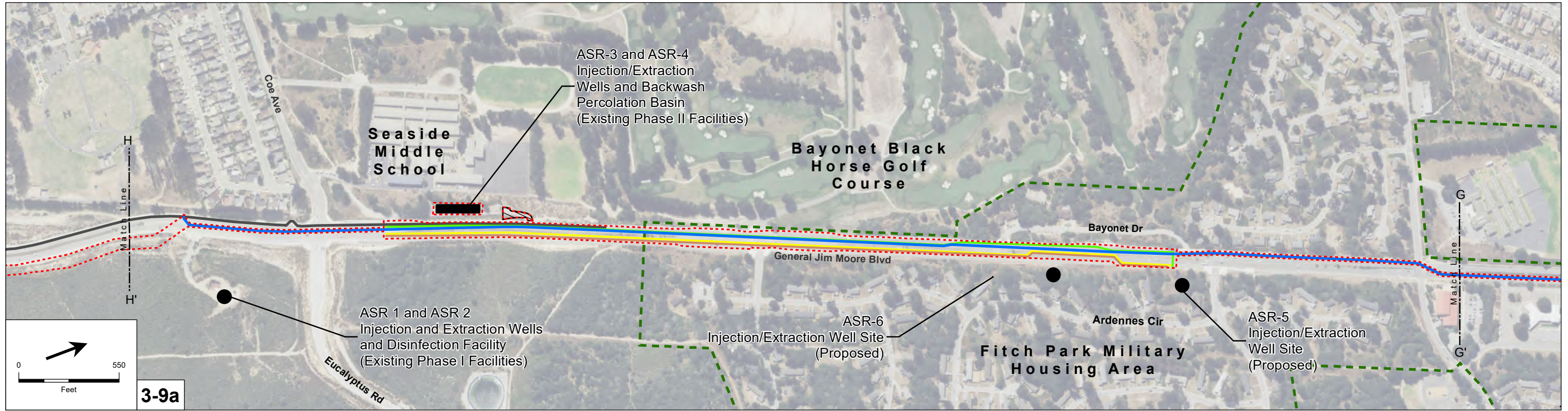




NOTE:  
\*Project area boundary refers to the area within which all construction related disturbance would occur.

SOURCE: ESA, 2016; US ARMY, 2016



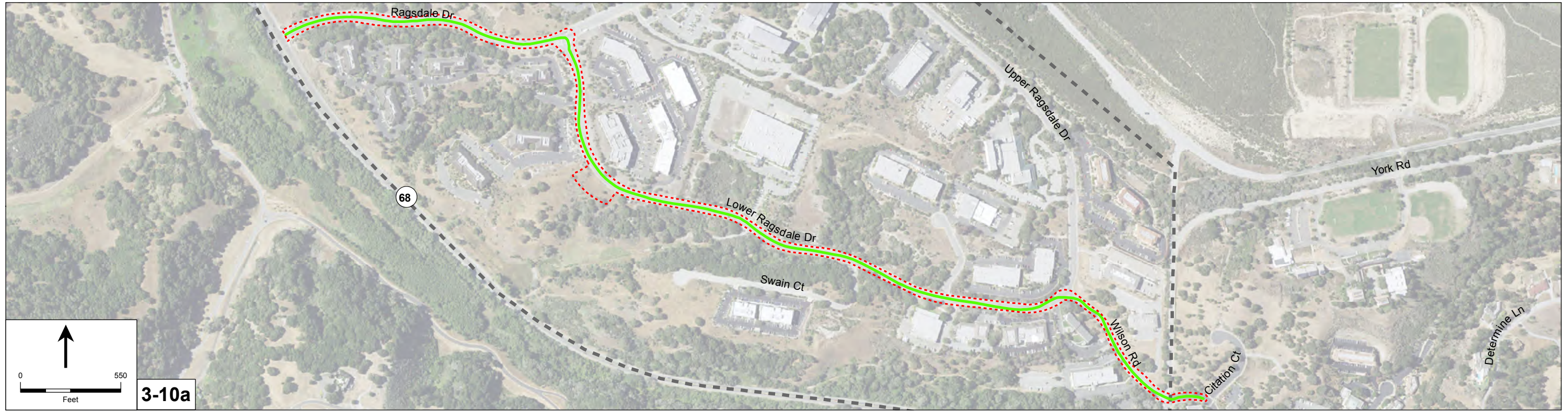


NOTE:  
\*Project area boundary refers to the area within which all construction related disturbance would occur.

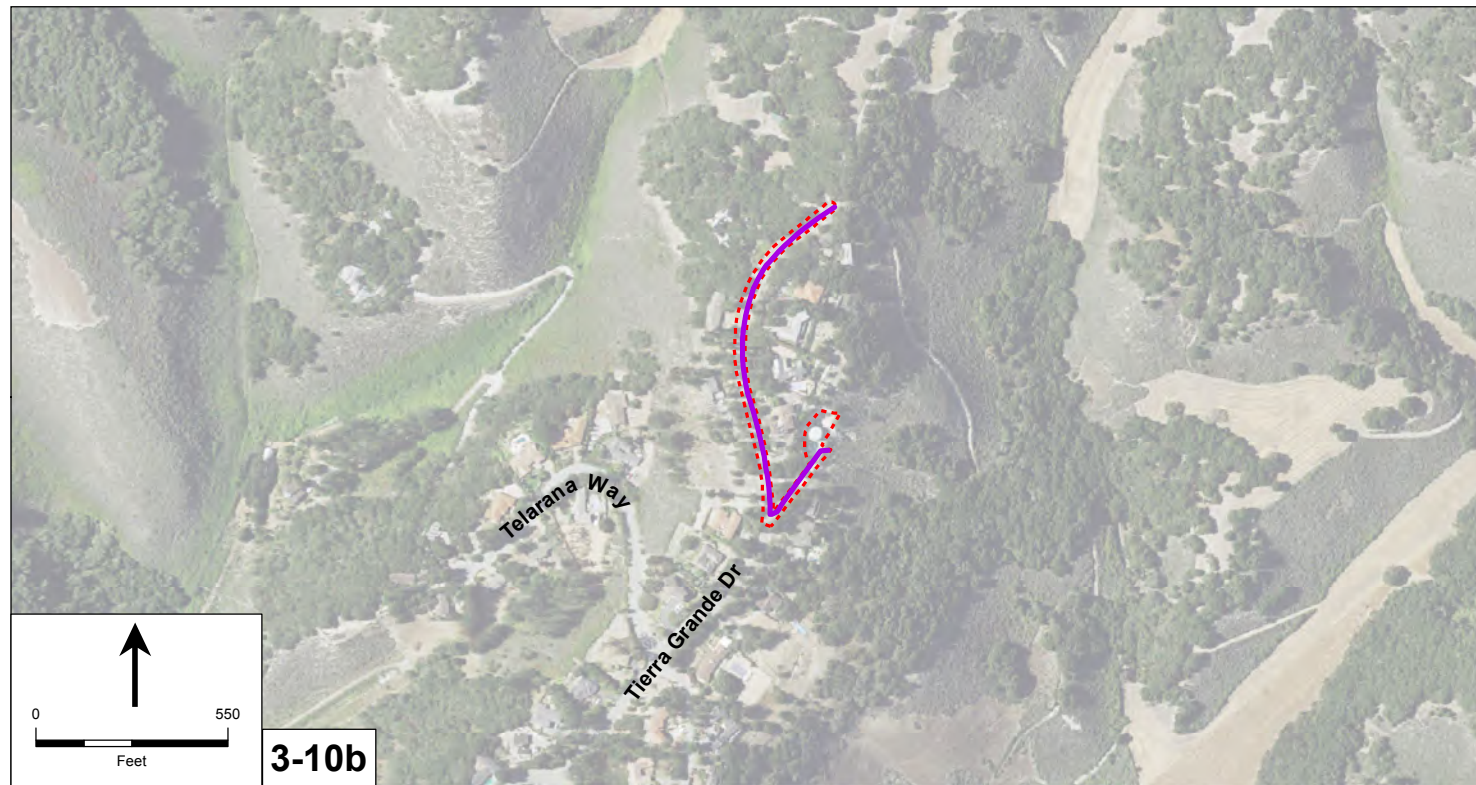
SOURCE: ESA, 2016; US ARMY, 2016

205335.01 Monterey Peninsula Water Supply Project  
**Figure 3-9**  
ASR Facilities and Terminal Reservoir





3-10a



3-10b



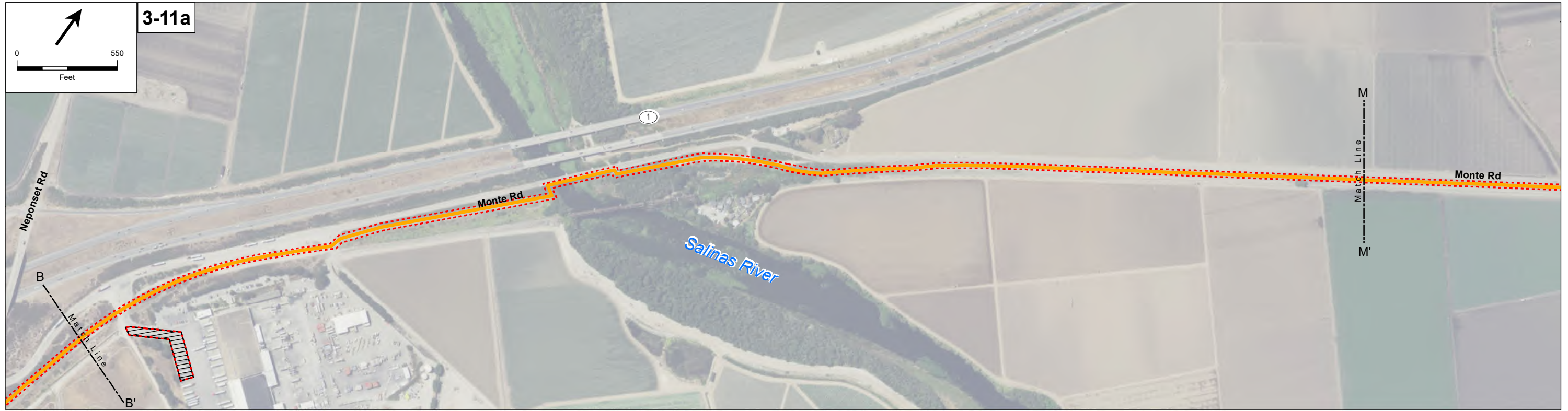
3-10c

- City Boundary
- Project Area Boundary \*
- Proposed Facilities**
- Main System-Hidden Hills Interconnection Improvements
- Ryan Ranch-Bishop Interconnection Improvements
- Carmel Valley Pump Station Inlet and Outlet Pipelines

NOTE:  
\*Project area boundary refers to the area within which all construction related disturbance would occur.

SOURCE: ESA, 2016

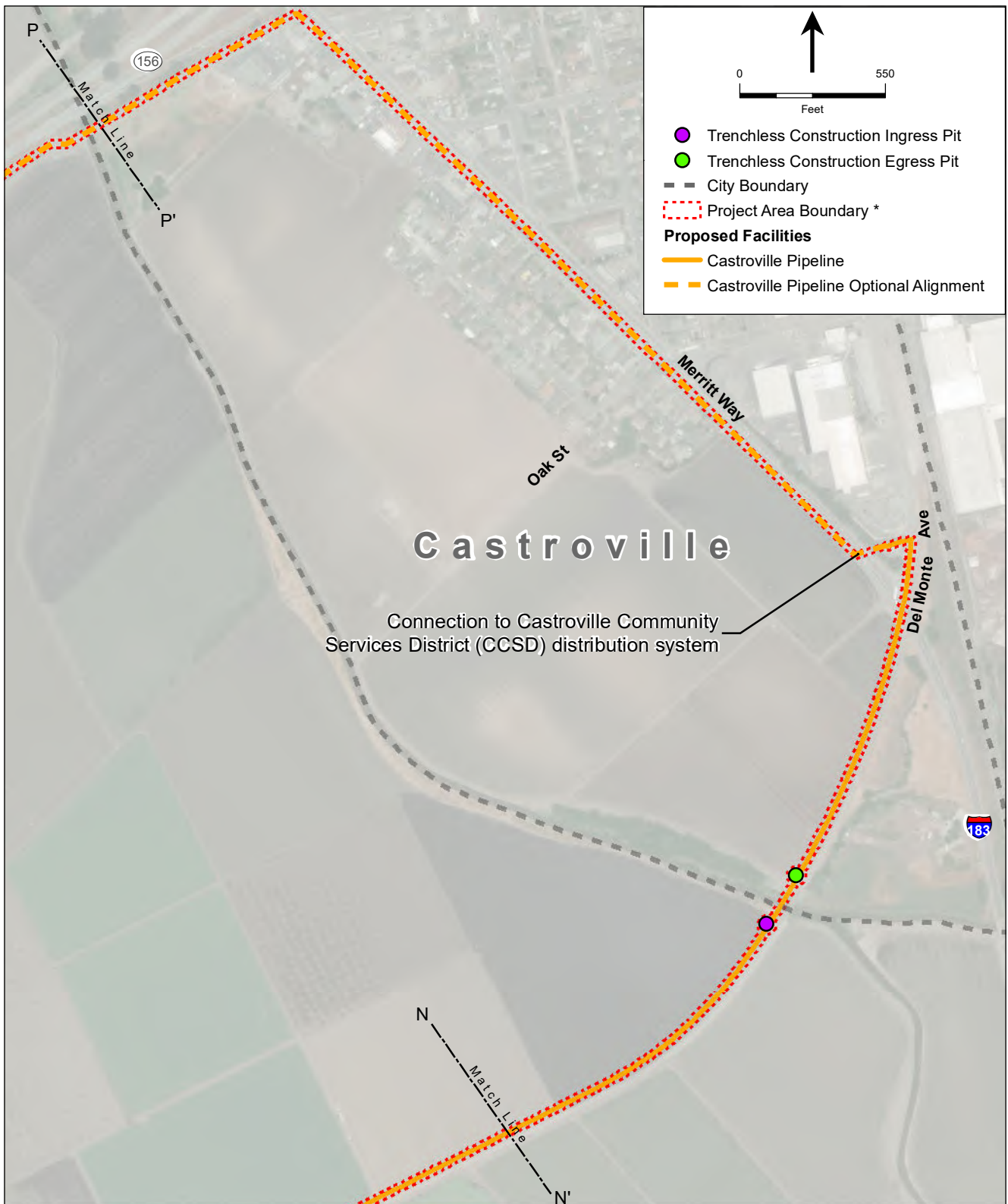




Staging Area  
 Project Area Boundary \*  
**Proposed Facilities**  
 Castroville Pipeline  
 Castroville Pipeline Optional Alignment

NOTE:  
\*Project area boundary refers to the area within which all construction related disturbance would occur.





NOTE:  
 \*Project area boundary refers to the area within which all construction related disturbance would occur.

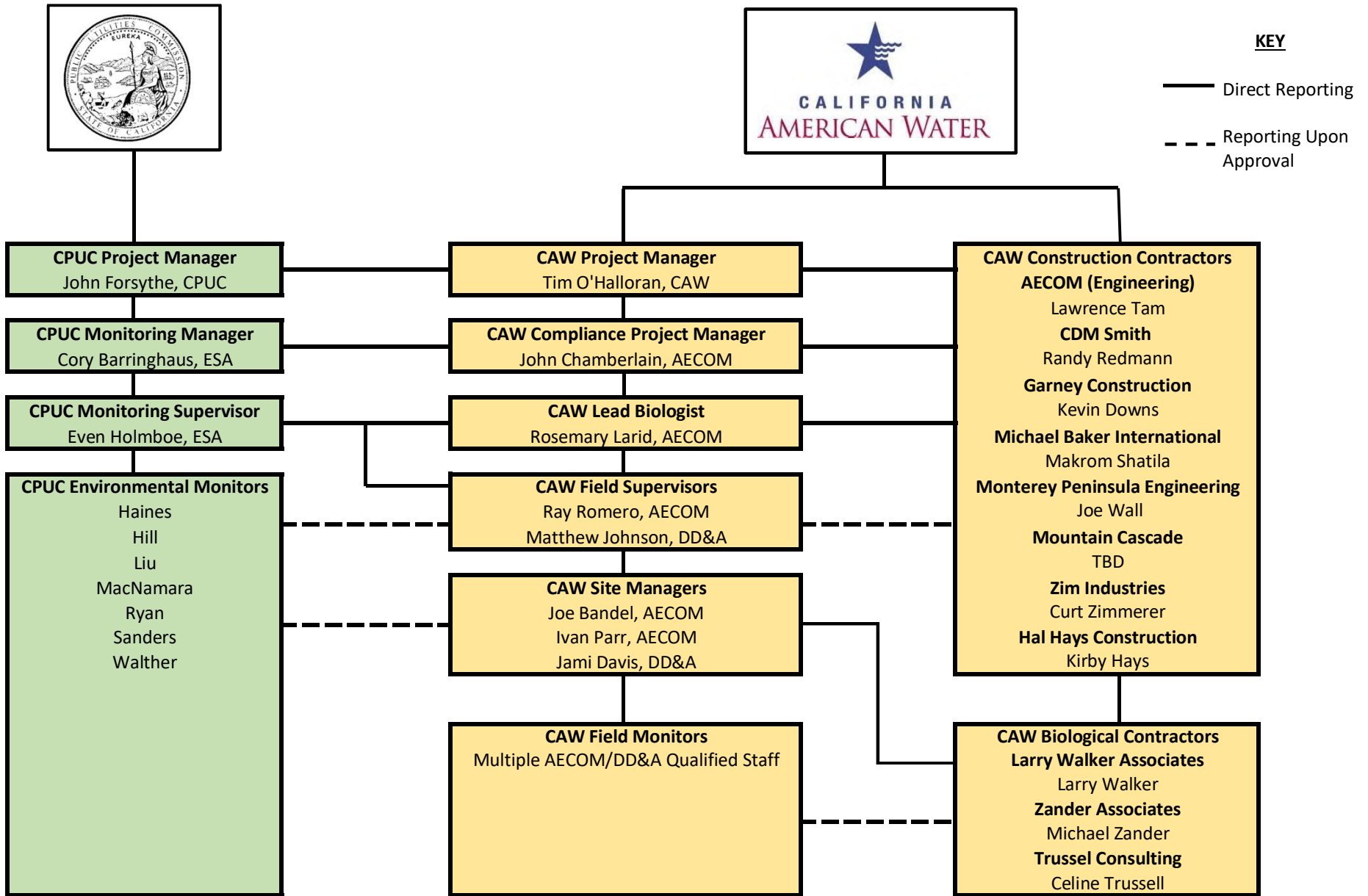
SOURCE: ESA, 2016

**Figure 3-12**  
 Castroville Pipeline - Connection to CCSD Distribution System

# Appendix B

## MPWSP Roles and Responsibilities Organizational Chart

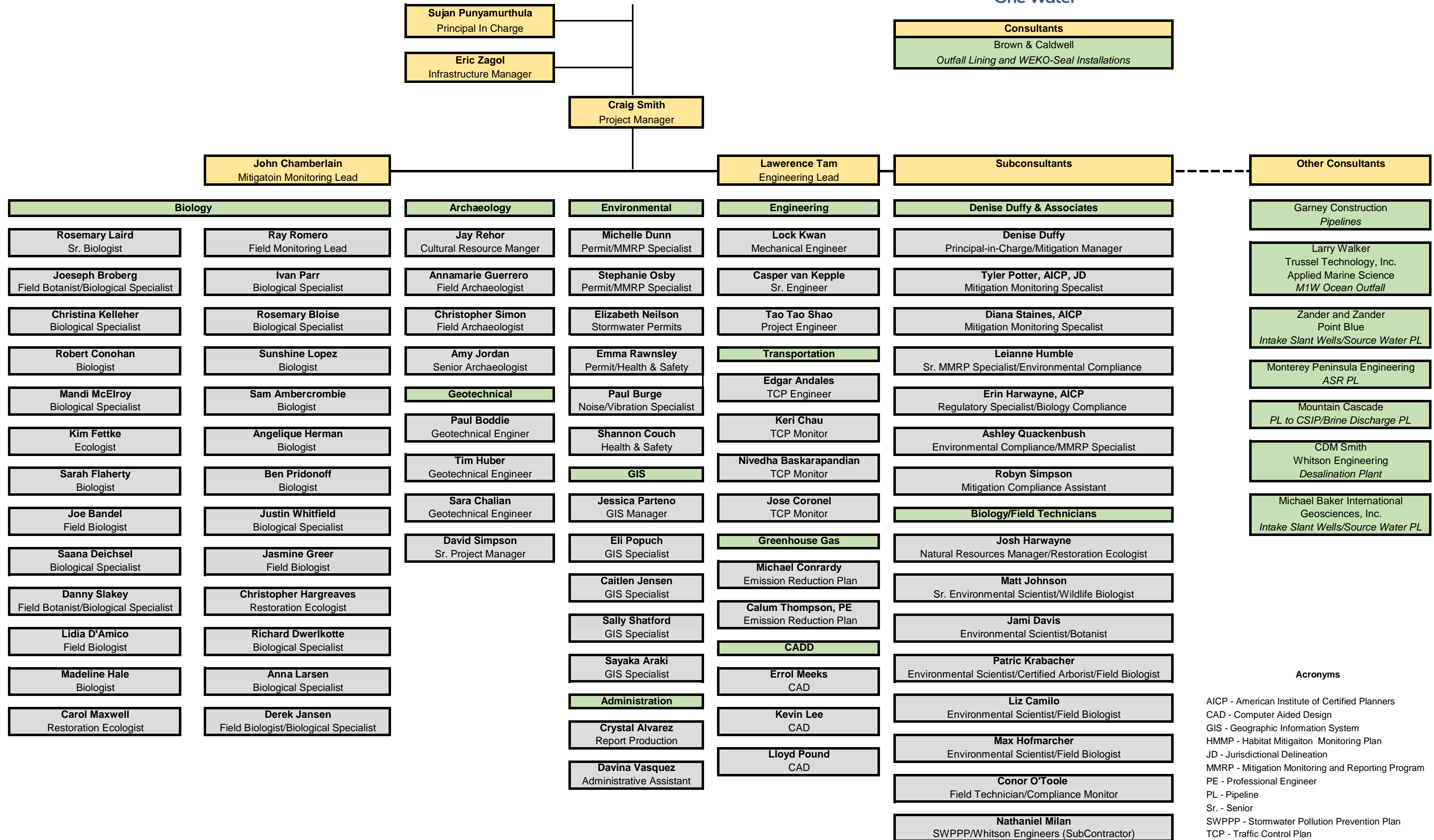
**Monterey Peninsula Water Supply Project  
Mitigation Monitoring, Compliance and Reporting Program  
Roles and Responsibilities Organization Chart**



# Appendix C

## CalAm Field Monitors and Contact Information

# AECOM Mitigation Monitoring Team Organizational Chart Monterey Peninsula Water Supply Project



- Acronyms**
- AICP - American Institute of Certified Planners
  - CAD - Computer Aided Design
  - GIS - Geographic Information System
  - HMMP - Habitat Mitigation Monitoring Plan
  - JD - Jurisdictional Delineation
  - MMRP - Mitigation Monitoring and Reporting Program
  - PE - Professional Engineer
  - PL - Pipeline
  - Sr. - Senior
  - SWPPP - Stormwater Pollution Prevention Plan
  - TCP - Traffic Control Plan

# Appendix D

## List of MPWSP Permitting Agencies

## Federal Approvals and Permits

Regulatory Agency	Permit/Approval	Permit Received Date (Anticipated Date)
Monterey Bay National Marine Sanctuary	Special Use Permit	(Q1 2020)
US Fish and Wildlife Service	Section 7 Federal Endangered Species Act (FESA) Consultation	10/18/2018
US National Marine Fisheries Service	Section 7 Federal Endangered Species Act (FESA) Consultation	10/23/2017
US Army Corps of Engineers	Section 10 RHA Permit	1/22/2019
	Section 404 CWA Notification or Permit (Wetlands & WOTUS)	1/22/2019
	Section 404 (b)(1) (Alternatives Analysis)	9/1/2018
US Environmental Protection Agency	UIC Program (ASR injection)	(Q4 2020)

## State/Regional Permits and Approvals

Regulatory Agency	Permit/Approval	Permit Received Date (Anticipated Date)
California State Lands Commission	State Lands Lease	(Q4 2019)
California Coastal Commission	Coastal Development Permit	(Q4 2019)
California Department of Fish and Wildlife	CESA Section 2081 Incidental Take Permit (Desal Plant Site)	(Q3 2019)
	CESA Section 2081 Incidental Take Permit (CEMEX Site)	(Q1 2020)
	Section 1602 Lake and Streambed Alteration	(Q4 2019)
California Department of Transportation	Encroachment Permit	(Q3 2019)
California Department of Drinking Water	DDW Approval for Realignment	(Q4 2019)
	DDW Approval for System Expansion	(Q4 2020)
State Water Resources Control Board	Sec 13142.5(b) Ocean Plan Determination	(Q1 2020)
	NPDES/WDR – Conveyance	(Q3 2019)
Central Coast Regional Water Quality Control Board	Section 401 CWA Water Quality Certification	4/18/2019

# Appendix E

## Project Mitigation Measures



**TABLE 1  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.2: Geology, Soils, and Seismicity</b>									
<b>Impact 4.2-1: Substantial soil erosion or loss of topsoil during construction.</b> <b>Mitigation Measures 4.6-2b and 4.16-1</b>	X		X	X	X	X	See below under Mitigation Measures 4.6-2b and 4.16-1		
<b>Impact 4.2-10: Accelerate and/or exacerbate natural rates of coastal erosion, scour, or dune retreat, resulting in damage to adjoining properties or a substantial change in the natural coastal environment.</b> <b>Mitigation Measure 4.2-10: Slant Well Abandonment Plan.</b> CalAm shall monitor and report the rate of coastal retreat and implement the following corrective measure: 1. CalAm shall conduct annual monitoring of the rate of coastal retreat relative to the slant wells at the CEMEX site by measuring the distance from the wellhead to the western dune face. The data shall be reported no later than June 30 each year to the agencies issuing and authorizing the Coastal Development Permit and shall establish an annual erosion rate to be used to estimate the year at which the wells and associated pipelines have 5 years before exposure, assuming that at least one 100-year storm event will have occurred within that exposure timeframe. 2. Beginning at least 5 years prior to the anticipated exposure of the slant wells, CalAm shall implement the planning and permitting necessary to decommission the slant wells in accordance with state well destruction standards. An application to destroy the slant well would be submitted to the Monterey County Environmental Health Bureau, Drinking Water Protection Services Unit, for approval. The decommissioning plans shall be prepared in coordination with the property owner and permit authorizing agencies. 3. Once an estimated exposure window is established through annual monitoring and a removal date is identified, CalAm shall remove the slant wells from service prior to their exposure. Slant well decommissioning activities would be restricted to the snowy plover non-nesting season (October 1 through February 28) to avoid impacts on nesting plovers and other sensitive species. The wellhead vault, electrical panel, buried electrical conduit, and discharge piping would all be excavated and removed, followed by backfilling and compaction of the excavated vault location and trenches. The well decommissioning shall be conducted in coordination with the property owner. 4. The slant well casing shall be pressure grouted such that the screened section is sealed, pursuant to the requirements of State of California Well Standards Bulletin 74-81 and 74-90, Part III Section 23. The section of well casing and pipelines at risk of exposure shall be cut and removed to a depth of five feet below the 2060, 100-year lower profile envelope as determined by the 2014 Coastal Erosion Study (ESA, 2014) or as directed by any permit condition.	X						CalAm shall conduct annual monitoring of coastal erosion and provide monitoring data to the CPUC and the agencies issuing and authorizing the Coastal Development Permit no later than June 30 each year of the rate of coastal retreat relative to the slant wells at the CEMEX site and establish an annual erosion rate (to be recalculated each year) to estimate the year at which the wells have 5 years before exposure. At least five years prior to the estimated exposure of the slant wells, CalAm shall notify CPUC of planned slant well decommissioning and shall obtain all required permit(s) for decommissioning of slant well(s) from Monterey County and other applicable responsible and trustee agencies. CalAm shall provide the CPUC and agencies issuing and authorizing the CDP with all approved permit(s) for recordation and coordination for monitoring during slant well decommissioning.	During operation	Monitor and report annual erosion rate and to provide adequate time of at least five years for CalAm to plan for, apply for/receive all permits required to decommission the slant wells before coastal erosion exposes the wells and/or their associated pipelines.
<b>Impact 4.2-C: Cumulative impacts related to geology, soils, and seismicity.</b> <b>Mitigation Measure 4.2-10</b>	X						See above under Mitigation Measure 4.2-10		
<b>Section 4.3: Surface Water Hydrology and Water Quality</b>									
<b>Impact 4.3-2: Degradation of water quality from construction-related discharges of dewatering effluent from open excavations and water produced during well drilling and development.</b> <b>Mitigation Measure 4.7-2b</b>	X			X			See below under Mitigation Measure 4.7-2b		

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.3: Surface Water Hydrology and Water Quality (cont.)</b>									
<p><b>Impact 4.3-4: Violate water quality standards or waste discharge requirements or degrade water quality from increased salinity as a result of brine discharge from the operation of the MPWSP Desalination Plant.</b></p> <p><b>Mitigation Measure 4.3-4: Operational Discharge Monitoring, Analysis, Reporting, and Compliance.</b></p> <p>To ensure that the operational discharges from the MPWSP are in compliance with the 2 ppt receiving water salinity limitation at the Brine Mixing Zone (BMZ) compliance point required by the California Ocean Plan, the discharger(s) shall implement a Monitoring and Reporting Plan (Plan). The Plan shall, at a minimum, include protocols for monitoring of effluent and receiving water salinity characteristics as well as protocols for determining statistically significant changes in benthic community composition within the maximum extent of the Zone of Initial Dilution (ZID) as compared to baseline conditions (established a minimum of one year prior to operations) that is directly associated with changes in salinity resulting from operational discharges (with consideration given to natural and seasonal variations and long-term regional trends). Such protocols shall include, but not be limited to, monitoring for benthic community health, aquatic life toxicity, and hypoxia, within the ZID. The Plan shall be consistent with the standard monitoring procedures detailed in Appendix III of the Ocean Plan. Such monitoring protocols specify monitoring plan framework, scope, and methodological design for determining compliance with the Ocean Plan defined receiving water limitations relating to salinity. Prior to implementation, the Plan shall be approved by the RWQCB and MBNMS. Following implementation, the Plan shall be reviewed by the RWQCB, and revised if necessary, as part of the NPDES permit renewal process.</p> <p>As part of the Plan, receiving water monitoring for salinity shall be conducted at times when the monitoring locations are most likely to be potentially adversely affected by the discharge. The Plan shall establish protocols to establish baseline biological conditions at the discharge location as well as at a reference location outside the influence of the discharge for at least one year prior to commencement of project construction. To determine impacts on marine biological resources against baseline biological conditions, the discharger(s) shall conduct biological surveys (e.g., Before-After Control-Impact studies), that evaluate and quantify the differences between biological communities at a reference site and at the discharge location before and after the discharge(s) commence. All monitoring data, results, and analyses shall be compiled and submitted to the RWQCB and MBNMS for review. Such monitoring shall continue until the RWQCB and MBNMS determines that a regional monitoring program is adequate to ensure compliance with the receiving water limitation.</p> <p><b>Water Quality Monitoring.</b> At a minimum, the Plan shall include the following water quality monitoring protocols and monitoring frequencies to assess baseline conditions and to track the compliance of the Project with the performance standard of ensuring operational discharges do not exceed ambient salinity by more than 2 ppt at the edge of the BMZ, as well as to assess the efficacy of any operational or design features implemented:</p> <p>A. At least one year prior to implementing operational discharges, the discharger(s) shall install continuously recording automated water quality monitoring equipment, such as automatically recording water quality data sondes (water quality monitoring instrument), to monitor salinity and dissolved oxygen levels at one hour intervals in the receiving waters of Monterey Bay. The discharger(s) shall install water quality monitoring equipment at a minimum of four locations within 3 meters of the ocean floor as follows:</p> <ol style="list-style-type: none"> <li>a. 1 monitoring station at the edge of the Zone of Initial Dilution, but not more than 10 meters from the outfall diffuser.</li> <li>b. 1 monitoring station at the edge of the Brine Mixing Zone, representing the point of compliance with the Ocean Plan salinity standard (not more than 100 meters from the outfall diffuser).</li> <li>c. A representative reference location at least 1000 meters from the outfall diffuser, situated on the same elevation contour as that of the outfall diffuser, in an area outside the influence of operational discharges or other inputs to Monterey Bay, such as operational discharges from other facilities or fresh water inputs in the form of major surface water inputs.</li> </ol> <p>B. Monitoring will be conducted for one year prior to the commencement of operational discharges to confirm baseline conditions.</p>		X					<p>CalAm shall prepare and submit the required water quality monitoring and reporting plan to RWQCB and MBNMS for approval, and provide a copy of the approved plan to the CPUC. Upon receiving the approvals and providing the CPUC with copies of the same, CalAm shall install monitoring equipment and begin water quality monitoring pursuant to the approved plan at least 1 year before the commencement of project operations. CalAm shall only use qualified professionals approved by RWQCB, CPUC and MBNMS for all required monitoring and analysis and shall promptly submit the required monitoring data and analysis to the RWQCB, CPUC, and MBNMS simultaneously. Review of the monitoring data and reports will identify the need for and details concerning any corrective measures, unless and until it is determined that it is no longer required, per the mitigation measure.</p> <p>For the required biological surveys, survey protocols and qualifications for professionals conducting the surveys shall be submitted to MBNMS for approval. Survey reports shall be submitted to MBNMS in a format approved by MBNMS.</p>	<p>Prior to and during operation at intervals specified in the mitigation measure.</p>	<p>Establish and incorporate comprehensive biological resources baseline data into the approved water quality monitoring and reporting plan and implement the plan, and revise it as deemed necessary by RWQCB and MBNMS, to ensure compliance with the 2 ppt receiving water quality limitation at the BMZ.</p>

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.3: Surface Water Hydrology and Water Quality (cont.)</b>									
<p>C. Once operational discharges commence, the discharger(s) shall continue monitoring (for a minimum of five years, as described below) to confirm compliance of operational discharges with the Ocean Plan receiving water salinity limitation, which specifies discharges shall not exceed a daily maximum of 2 parts per thousand (ppt) above natural background salinity, as measured no further than 100 meters (328 ft) horizontally from the discharge point.</p> <p>The discharger(s) shall retrieve all data from deployed water quality monitoring instrumentation at least four times a year at quarterly annual intervals during both the one-year period of baseline monitoring and during the salinity standard compliance monitoring associated with operations. Following data collection, data shall be analyzed for compliance with the receiving water salinity standard defined in the Ocean Plan. Additionally, the salinity and dissolved oxygen data retrieved shall be used, in conjunction with biological survey data, to assess changes to benthic community composition within the ZID. The analyses and monitoring data shall be summarized and submitted to the RWQCB and MBNMS as annual reports as well as made publicly available via the project website. Reports shall include summary graphs of all quality assured/quality controlled data as well as statistical analyses of the data relative to historic baselines. Reports shall assess water quality data within the context of relevant water quality standards. The reports shall describe any measured adverse water quality related changes, such as high salinity or low dissolved oxygen levels that potentially impact marine habitat quality or benthic communities. The reports shall include assessment of the extent to which any measured changes were attributable to controllable factors, such as the variation of combined flows as part of operational discharges.</p> <p>The analysis and reporting conducted as part of the Plan shall determine the need for corrective actions to be implemented in the form of the design features and operational measures prescribed in <b>Mitigation Measure 4.3-5</b> to reduce identified impacts to less-than-significant levels. As part of such a determination for implementation of corrective actions, a schedule for implementation shall be provided, as well as rationale for how such design features and/or operational measures were selected and the expected results following implementation. All analysis and reporting, including determinations for the need for corrective actions to be implemented, the schedule for implementation, and the rationale for selected corrective actions shall be approved by the RWQCB and MBNMS. If at the end of five complete years of monitoring operational discharges, the 24-hour average salinity measured at the edge of the BMZ is less than 75% of the salinity performance standard for 45 days without interruption under all discharge scenarios representative of typical operations (i.e. irrigation season and non-irrigation season operations), and with approval by the RWQCB and MBNMS, the discharger(s) may terminate the monitoring and reporting specified as part of this mitigation measure (but not terminate monitoring and reporting required as part of compliance with NPDES permit conditions or Ocean Plan monitoring and reporting requirements for discharges into California ocean waters).</p>									
<p><b>Impact 4.3-5: Violate water quality standards or waste discharge requirements or degrade water quality as a result of brine discharge from the operation of the MPWSP Desalination Plant.</b></p> <p><b>Mitigation Measure 4.3-5: Implement Protocols to Avoid Exceeding Water Quality Objectives.</b></p> <p><b>Compliance with Water Quality Objectives.</b> Prior to MPWSP operations, and as part of the Monterey One Water (M1W, formerly MRWPCA) NPDES Permit amendment process (Order No. R3-2014-0013, NPDES Permit No. CA0048551), the permittee shall complete a water quality assessment. As part of the water quality assessment, the permittee shall:</p> <ul style="list-style-type: none"> <li>Quantify the projected final design discharge volume(s) by month based on project design and historic and projected monthly wastewater discharge volumes.</li> <li>Collect samples of the source waters and operational discharges and analyze them in a certified laboratory for the constituents listed in Table 1 of the California Ocean Plan (Ocean Plan Water Quality Objectives). Sampling must be completed in accordance with protocols approved by the US EPA and RWQCB.</li> </ul>		X					RWQCB to review and enforce NPDES permit for brine discharge. CalAm's water quality assessment shall be reported to and reviewed by RWQCB, CPUC, and MBNMS to demonstrate compliance with the NPDES permit conditions and related Ocean Plan requirements.	Prior to and during operation	Compliance with NPDES permit and related Ocean Plan requirements.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria	
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule		
<b>Section 4.3: Surface Water Hydrology and Water Quality (cont.)</b>										
<ul style="list-style-type: none"> <li>Demonstrate compliance for the full range of regulated water quality constituents specified in the Ocean Plan and NPDES water quality requirements in the context of minimum initial dilution values at the edge of the Zone of Initial Dilution (ZID) for the point of discharge.</li> </ul> <p>If the results of the water quality assessment and waste disposal study find that operational discharges will not meet the NPDES water quality requirements, including the Ocean Plan receiving water limitation for salinity, at the edge of the zone of initial dilution (ZID) and the Brine Mixing Zone (BMZ), respectively (incorporated here as performance standards), then the MPWSP operational discharges shall not be released as proposed. Such operational discharges shall be subject to additional design features, engineering solutions, and/or operational measures to reduce the concentration of water quality constituents to be in conformance with the Ocean Plan water quality objectives and NPDES permit requirements at the edge of the ZID or BMZ, as applicable. Such necessary design features and operational measures shall either be implemented individually or in combination to achieve compliance (unless the RWQCB determines that different but equally effective measures be employed).</p> <p>Such possible additional design features and operational measures include:</p> <ol style="list-style-type: none"> <li><i>Retrofitting the existing outfall to increase dilution:</i> If this operational measure is implemented, the dischargers shall retrofit the outfall diffuser to include inclined diffuser jets positioned at the optimum angle to achieve maximum dilution.</li> <li><i>Additional pre-treatment of source water to the Desalination Plant:</i> Feasible methods to remove polychlorinated biphenyls (PCBs) and other organic compounds from the source water include additional filtration or use of granular activated carbon (GAC) - a U.S. Environmental Protection Agency-approved method.</li> <li><i>Treatment of discharge:</i> The dischargers must consider one or more of the alternative feasible methods that remove residual compounds from the discharge to meet water quality objectives at the edge of the ZID. These methods include the following: <ol style="list-style-type: none"> <li>Use of GAC (similar to that under the additional pre-treatment of source water described above, but here such treatment would be applied to the effluent following processing at the desalination facility instead of to the source water from the slant wells); or</li> <li>Advanced oxidation with ultraviolet light with concurrent addition of hydrogen peroxide.</li> </ol> </li> <li><i>Flow Augmentation:</i> If this operational measure is implemented, the dischargers shall decrease the density difference of the discharge and the receiving water through the addition of up to 5 mgd of flows with densities close to freshwater to increase the minimum dilution of dense discharges.</li> <li><i>End gate modification:</i> If this operational measure is implemented, the dischargers shall retrofit the outfall diffuser end gate to replace the existing opening with a minimum of one 6-inch Tideflex (or similar) check valve (Hydraulic Code 355) installed at an inclined (upward) angle greater than 20°, with an optimum angle of 60° to maximize dilution.</li> </ol>										
<b>Impact 4.3-C: Cumulative impacts related to surface water hydrology and water quality.</b>		X								
<b>Mitigation Measures 4.3-4, 4.3-5, and 4.7-2b</b>							See above under Mitigation Measures 4.3-4 and 4.3-5, and below under Mitigation Measure 4.7-2b			

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.4: Groundwater Resources</b>									
<p><b>Impact 4.4-3: Deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level during operations.</b></p> <p><b>Applicant Proposed Measure 4.4-3: Groundwater Monitoring and Avoidance of Well Damage.</b></p> <p>Prior to the start of MPWSP slant well construction, CalAm, working with MCWRA, shall develop a groundwater monitoring and reporting program (the "Program") to the satisfaction of MCWRA. All costs of Program development and implementation shall be borne by CalAm either directly or through funding of MCWRA's staff, consultants and Program activities. The Program shall augment the MCWRA's existing regional groundwater monitoring network to focus on the area that could be affected by the proposed slant wells. The geographic area of the Program shall be within the model domain of the North Marina Groundwater Model, also referred to as NMGWM<sup>2016</sup> and include the Dune Sand Aquifer, the 180-Foot Aquifer, the 400-Foot Aquifer and the Deeper Aquifer (i.e., the 900-Foot Aquifer) of the Salinas Valley Groundwater Basin (the "Monitoring Area"). The purpose of the Program is to ensure that owners of existing public or private groundwater supply wells within the Monitoring Area on the date the MPWSP commences slant well pumping ("Active Supply Wells") suffer no harm as a result of MPWSP slant well pumping. The elements of the Program proposed under this measure are described below.</p> <ol style="list-style-type: none"> <li>1. A network of monitoring wells has been completed on and near the CEMEX property as part of the CalAm test slant well project. These well clusters monitor water elevation and quality at various depth intervals within the Dune Sand Aquifer, the 180-Foot Aquifer, and the 400-Foot Aquifer and shall be included in the Program's monitoring network. These existing monitoring wells are subject to relocation, replacement, or substitution by new or other monitoring wells developed as part of the Program as determined by MCWRA.</li> <li>2. In addition, using information from the Groundwater Extraction Management System (GEMS) maintained by MCWRA and from the State Water Resources Control Board's Division of Drinking Water, CalAm, in coordination with MCWRA, shall identify Active Supply Wells in the Monitoring Area and offer to owners of identified Active Supply Wells the opportunity to participate in the Program for groundwater elevation and water quality monitoring. The owners of Active Supply Wells in the Monitoring Area will receive at least 60 days' notice (via email, if available, and via certified mail) of the opportunity to participate in the Program, and may elect in writing to participate in the Program as to their Active Supply Wells ("Participating Active Supply Wells"). This opt-in process must occur sufficiently in advance of MPWSP slant well pumping so that information on pre-MPWSP conditions can be obtained for each Participating Active Supply Well. Prior to the start of MPWSP slant well pumping, an independent California-certified hydrogeologist retained and directed by MCWRA (the "Hydrogeologist") shall evaluate the conditions and characteristics (e.g., well depth, well screen interval, pump depth and condition, flow rates, and drawdown) of each Participating Active Supply Well to develop pre-pumping data for each well. Water elevation and quality monitoring pursuant to the Program shall begin following initial groundwater well assessment, and shall continue at intervals specified in the Program (e.g., more frequently at the beginning of MPWSP slant well pumping and less often after stabilization of groundwater levels) until the well owner ceases pumping from the monitored well, or until the well owner agrees that monitoring is no longer required.</li> <li>3. Prior to the start of MPWSP slant well pumping, CalAm and MCWRA shall review the current (as updated if needed) inventory of monitoring wells within the Monitoring Area, and identify locations within the Monitoring Area lacking monitoring coverage and that warrant monitoring in order to evaluate potential effects on Participating Active Supply Wells from MPWSP slant well pumping. Based upon that review, MCWRA may require that CalAm fund the installation of new monitoring wells in the Monitoring Area to be installed before MPWSP slant well pumping begins. The number of new monitoring well sites in the Monitoring Area and the location of those new monitoring well sites shall be determined by MCWRA. The area of groundwater monitoring under the Program may be extended outside of the Monitoring Area if warranted to evaluate potential MPWSP slant well pumping effects on Participating Active Supply Wells and recommended by the Hydrogeologist.</li> </ol>	X						CalAm shall prepare the Program to be reviewed and approved by MCWRA. The MCWRA-approved Program will be sent to CPUC for confirmation prior to operation of the slant wells. CPUC will monitor and review procedures to prevent harm to local groundwater supply well owners and ensure their receipt of replacement water, as directed in the mitigation measure.	Prior to and during operation	No harm or injury to existing active groundwater supply wells.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: CalAm Reports On, and the CPUC Monitors all Mitigation Measures	Implementation Schedule	
<b>Section 4.4: Groundwater Resources (cont.)</b>									
<p>4. The groundwater data developed through the Program shall be collected by or provided to MCWRA at intervals identified in the Program, but in no event longer than 45 days from such data being obtained, to evaluate whether MPWSP slant well pumping is causing consistent and measurable drawdown of local groundwater levels that is distinguishable from seasonal or multi-year groundwater level fluctuations. In the event that MCWRA identifies a consistent and measurable drawdown in groundwater levels and determines that such drawdown is potentially attributable to MPWSP slant well pumping and independent of seasonal or multi-year groundwater level fluctuations or any regional trends, the Hydrogeologist shall then determine if the observed degree of drawdown would damage or otherwise adversely affect any existing Participating Active Supply Wells. Adverse effects from lowered groundwater levels in Participating Active Supply Wells may include water elevation acute and long-term declines that draw water below pump intakes, causing cavitation due to exposure of the well screen, reduced well yields and pumping rates, increased energy costs to power the well, or changes in groundwater quality indicating that MPWSP slant well pumping is drawing lower quality water toward the well. Active Supply Wells that are not Participating Active Supply Wells will be considered for a determination by the Hydrogeologist of potential damage or adverse effects reasonably attributable to MPWSP slant well pumping (as described above) if substantial, credible evidence is submitted by the owners of such Active Supply Wells concerning damage or adverse effects at such wells, and such effects are verified by CalAm and the Hydrogeologist.</p> <p>If the Hydrogeologist determines that a Participating Active Supply Well or an Active Supply Well that CalAm and the Hydrogeologist have verified for damage or adverse effects pursuant to Section 4 above, has been damaged or otherwise negatively affected by MPWSP slant well pumping, CalAm and the Hydrogeologist shall coordinate with the well owner to develop and implement a mutually agreed upon course of action. Such course of action may include but not be limited to repairing or deepening the existing well, restoring groundwater yield by improving well efficiency, facilitating an interim or long-term replacement of water supply, constructing a new well, or compensating the owner for increased pumping costs. Any interim or long-term replacement water supply shall be of the same or better quality (i.e., potable or non-potable) and predicted quantity as the existing supply of the Active Supply Well and shall be suitable for the purposes served by the existing Active Supply Well. Before CalAm undertakes any course of action to remedy the MPWSP slant well pumping effects on an Active Supply Well, the Hydrogeologist shall authorize such action and provide notice of such action to MCWRA. <b>Applicant Proposed Measure 4.4-3</b> would monitor changes in the groundwater surface elevations caused by the proposed pumping at the slant wells through a voluntary program and use of new groundwater monitoring wells. If it is determined that the project is causing groundwater levels to damage local active wells within the Dune Sand, 180-Foot/FTE, 400-Foot Aquifer or Deeper Aquifer, this measure would ensure that active wells are repaired or replaced. Implementation of <b>Applicant Proposed Measure 4.4-3</b> is not necessary to address any significant project effect.</p>									
<p><b>Impact 4.4-4: Violate any groundwater quality standards or otherwise degrade groundwater quality during operations.</b></p> <p><b>Mitigation Measure 4.4-4: Groundwater Monitoring and Avoidance of Impacts on Groundwater Remediation Plumes.</b></p> <p>Prior to the start of MPWSP construction, CalAm shall incorporate the future quarterly groundwater elevation monitoring results for the OUCTP A-Aquifer and 180-Foot Aquifer (upper and lower) plumes into the well monitoring program described above in <b>Applicant Proposed Measure 4.4-3</b> until the two OUCTP plumes have been appropriately remediated and the RWQCB no longer requires remediation activities. Groundwater elevation data shall be obtained from the periodic monitoring reports developed by the U.S. Army and its contractors. The elements of the additions to the groundwater monitoring program proposed under this mitigation measure are described below.</p> <ul style="list-style-type: none"> <li>CalAm shall incorporate into its well monitoring program (described above for <b>Applicant Proposed Measure 4.4-3</b>), the most recent monitoring reports available through the U.S. Army and its contractors for the monitoring wells that are necessary to characterize the flow direction and water quality of the three OUCTP plumes located in the A-Aquifer, the Upper 180-Foot Aquifer and the Lower 180-Foot Aquifer.</li> </ul>	X					CalAm will conduct quarterly groundwater monitoring program to monitor the potential effect of drawdown on the OUCTP plumes prior to their remediation. Results of the monitoring program will be incorporated in the MCWRA-approved Program and sent to CPUC for review. CalAm will coordinate with the U.S. Army on the monitoring program results. CalAm will inform U.S. Army, RWQCB, DTSC, and U.S. EPA, and CPUC simultaneously if the monitoring program results show the 1-foot contour approaching the OUCTP plumes. CalAm, in coordination with the U.S. Army, RWQCB, DTSC, and U.S. EPA are responsible for developing a plan if drawdown affects remediation of the plumes.	Prior to and during operation	No intersection with or impact on the OUCTP plumes by slant well pumping.	

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.4: Groundwater Resources (cont.)</b>									
<ul style="list-style-type: none"> <li>The groundwater elevation results shall be evaluated by CalAm and its consultants on a quarterly basis to assess whether the -1-foot drawdown contour from the proposed subsurface intake system is approaching the edge of the OUCTP plumes. CalAm shall continuously coordinate with and include the U.S. Army in all pertinent correspondence during the groundwater data evaluation stages. If the analysis concludes that the slant well pumping could intersect or could influence the flow direction of the OUCTP plumes, then CalAm shall contact the U.S. Army, the Regional Water Quality Control Board – Central Coast Region, the California Department of Toxic Substance Control, and the U.S. EPA to initiate communications and develop and implement a plan to either stop or decrease the pumping to prevent any impact on the OUCTP plumes. In the unlikely event that an impact does occur, CalAm shall bear the necessary additional costs to address changes in the plume flow direction, arrest migration of the plumes, and/or to remediate areas of new contamination created by slant well pumping. CalAm shall consider using existing groundwater remediation and monitoring wells that remain on the site to expand the existing treatment systems.</li> <li>When the ongoing remediation of the OUCTP plumes has been completed and the RWQCB authorizes closure of the two OUCTP plumes remediation activities, this mitigation measure shall no longer apply.</li> </ul>									
<b>Section 4.5: Marine Biological Resources</b>									
<b>Impact 4.5-C1: Cumulative impacts on marine biological resources.</b>		X						See above under Mitigation Measure 4.3-4	
<b>Mitigation Measure 4.3-4</b>									
<b>Section 4.6: Terrestrial Biological Resources</b>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1a: Retain a Lead Biologist to Oversee Implementation of Protective Measures.</b></p> <p>Prior to initiation of construction, CalAm and/or representatives of CalAm shall retain a qualified Lead Biologist to oversee compliance with avoidance and minimization measures for all special-status species and sensitive habitats. The Lead Biologist shall be onsite, or shall appoint qualified biologists and/or qualified biological monitors to be onsite, during all fencing and ground disturbance activities. The Lead Biologist, qualified biologists, and qualified biological monitors shall be subject to approval by resource agencies with jurisdiction over the special-status species with potential to occur at the project site (and local agencies, if required). Only the Lead Biologist and/or qualified biologists may lead protocol surveys and relocate special-status species, as authorized by the resource agencies with jurisdiction over these species.</p> <p>In the event that construction-related activities have the potential to violate the prescribed special-status species and habitat protection measures, the project Lead Biologist, or other appointed qualified biological monitors shall report to construction or operational site supervisors with authority to stop work to prevent any violations. Work shall proceed only after the construction-related hazards to special-status species and habitats are removed. If a special-status wildlife species is present, work shall proceed only if the species is no longer at risk of injury or death. Violations shall be thoroughly documented as part of compliance monitoring activities.</p> <p>The Lead Biologist shall ensure that all compliance monitoring activities are documented on a daily basis, and shall prepare a summary monitoring report on a monthly basis to be submitted to regulatory agencies upon their request. The monthly summary monitoring report shall provide information regarding the worker awareness training (see Mitigation Measure 4.6-1b below), surveys, and any observed special-status species, including any accidental injuries or fatalities. The monthly report shall also document the effectiveness and practicality of the prescribed avoidance and minimization measures and recommend modifications to the measures if needed. The Lead Biologist shall supply agency staff with copies of compliance records, including any reports of non-compliance, upon request.</p>	X		X	X	X	X	CalAm will secure approvals from all resource agencies, with jurisdiction of special-status species with potential to occur on the Project site, of the qualifications and the retention of a Lead Biologist. CalAm will provide daily and monthly compliance summary monitoring reports containing all information required by the mitigation measure to the resources agencies and CPUC.	Prior to and during construction activities and during maintenance activities at the slant well sites.	No violation of prescribed special-status species and habitat protection measures, and if work is stopped to prevent any such violation, work shall proceed only after the construction-related hazards to special-status species and habitats are removed (i.e., the species is no longer at risk of injury or death).

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
The Lead Biologist shall have in her/his possession a copy of all compliance measures while work is being conducted onsite, and shall ensure that CalAm's onsite representatives and contractors also maintain copies of the compliance measures on the site. To facilitate the Lead Biologist's role, CalAm shall ensure that the Lead Biologist is fully apprised of all decisions that change or materially affect the schedule, methods, and location of work that is subject to the protective measures for biological resources. This measure also applies to periodic maintenance of the subsurface slant wells.									
<b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b> <b>Mitigation Measure 4.6-1b: Construction Worker Environmental Awareness Training and Education Program.</b> Prior to starting work, all construction workers at the project areas shall attend a Construction Worker Environmental Awareness Training and Education Program developed and presented by the Lead Biologist, appointed qualified biologist, and/or qualified biological monitor. The program shall include information on each federal and state-listed species, as well as other special-status wildlife and plant species and sensitive natural communities that may be encountered during construction activities. The training shall include: information on special-status species' life history and legal protections; the definition of "take" under the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA); the measures CalAm and/or its contractors have committed to implementing to protect special-status species and sensitive natural communities; reporting requirements and communication protocols; specific measures that each worker shall employ to avoid "take" of special-status species; and penalties for violation of FESA and/or CESA. Training shall be documented as follows: 1. An acknowledgement form shall be signed by each worker indicating that environmental training has been completed. 2. A sticker shall be placed on hard hats indicating that the workers have completed the environmental training. Construction workers shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker. 3. A copy of the training transcript/training video and/or DVD, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgement forms, shall be submitted to the CPUC. This measure also applies to periodic maintenance of the subsurface slant wells.	X		X	X	X	X	CalAm will incorporate contract conditions requiring their contractors' employees to attend the required Construction Worker Environmental Training and Education Program and provide CalAm with signed copies of the contracts prior to construction. CalAm will provide a copy of the transcript and/or DVD developed and presented by CalAm's Lead Biologist containing all components of the required Construction Worker Environmental Training and Education Program and the names and signed acknowledgement forms of all construction workers that completed the Program to CPUC prior to construction.	Prior to construction activities and subsequent maintenance activities at the slant well sites.	All construction workers complete Construction Worker Environmental Training and Education Program and only those workers with a sticker on their hard hat so indicating are permitted to operate equipment within the construction area.
<b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b> <b>Mitigation Measure 4.6-1c: General Avoidance and Minimization Measures.</b> CalAm's construction contractor(s) shall implement the following general avoidance and minimization measures to protect special-status species and sensitive natural communities at the facility sites during construction: 1. The construction footprint, staging areas, equipment access routes, and disposal or temporary placement of spoils, shall be delineated with stakes and flagging prior to construction to avoid natural resources outside of the project area. Any construction-related disturbance outside of these boundaries, including driving, parking, temporary access, sampling or testing, or storage of materials, shall be prohibited without explicit approval of the Lead Biologist. 2. New access driveways shall not extend beyond the delineated construction work area boundary. Construction vehicles shall pass and turn around only within the delineated construction work area boundary or local road network. Where new access is required outside of existing roads or the construction work area, the route shall be clearly marked (i.e., flagged and/or staked) prior to being used, subject to review and approval of the Lead Biologist. 3. Vehicle speeds within the project area shall not exceed 15 miles per hour on roads within the sites.	X		X	X	X	X	A Lead Biologist hired by CalAm will oversee compliance with avoidance and minimization measures for special-status species and sensitive natural communities and as directed in permit conditions approved and monitored by USFWS and CDFW. CalAm will include contract specifications that include the general avoidance and minimization measures from the mitigation measure and provide CPUC with copies of the signed contracts prior to construction. Documentation of these measures, including species found on-site and additional avoidance, minimization, or mitigation measures necessary, will be sent to CPUC, USFWS, and CDFW for monitoring of effectiveness.	Prior to and during construction activities and during maintenance activities at the slant well sites.	Implementation of avoidance and minimization measures prior to the start of construction, during construction, and during maintenance of the slant wells. Halting construction work if special-status species are found present during construction activities or maintenance of the slant wells. Consultation by the Lead Biologist, along with CPUC and MBNMS, with resource agencies to apply additional measures necessary to move or mitigate for on-site special status species.



**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
4. Excavated soils shall be stockpiled in disturbed areas lacking native vegetation. Stockpile areas shall be marked by the Lead Biologist to define the limits where stockpiling can occur.									
5. Standard best management practices (such as setbacks and use of silt fences and fiber rolls) shall be employed to prevent loss of habitat due to erosion caused by project related impacts (i.e., grading or clearing for new roads). All detected erosion shall be remedied immediately upon discovery.									
6. Fueling of construction equipment shall take place within existing paved areas, and at least 50 feet from drainages (including streams, creeks, ditches, culverts, or storm drain inlets) and native habitats. Contractor equipment shall be checked for leaks prior to operation and repaired when leaks are detected. Fuel containers shall be stored within appropriately-sized secondary containment barriers.									
7. The introduction of exotic plant species shall be avoided through physical or chemical removal and prevention. Measures to prevent the introduction of exotic plants into the construction site via vehicular sources shall include implementing Track clean or other method of vehicle cleaning for vehicles coming to the site and leaving the site. Earthmoving equipment shall be cleaned prior to transport to the project area. Weed-free rice straw or other certified weed-free straw shall be used for erosion control. Weed populations introduced into the site during construction shall be eliminated by chemical and/or mechanical means approved by California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS).									
8. Use of herbicides as vegetation control measures shall be used only when mechanical means have been deemed ineffective. All uses of such herbicidal compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and state and federal legislation as well as additional project-related restrictions deemed necessary by the CDFW and/or USFWS. No rodenticides shall be used.									
9. Prior to the start of construction at any proposed facility site where special-status amphibians, reptiles and mammals have a moderate or high potential to occur, the construction work area boundary shall be fenced with a temporary exclusion fence to prevent special-status wildlife from entering the site during construction (see <b>Table 4.6-6</b> for the list of special-status species that could be significantly impacted at each project facility site). The exclusion fencing shall be constructed of metal flashing, plastic sheeting, or other materials that will prohibit California horned lizards, Monterey shrews, and other special-status reptiles, amphibians, and rodents from climbing the fence. If meshing is used it shall be of a size that would not catch wildlife. The fencing shall be buried a minimum of 6 inches below grade to secure the fence and extend a minimum of 30 inches above grade. The fencing shall be inspected by the Lead Biologist or qualified biological monitor on a daily basis during construction activities to ensure fence integrity. Any needed repairs to the fence shall be performed on the day of their discovery. Fencing shall be installed and maintained during all phases of construction. Final fence design and location shall be determined in consultation with USFWS and CDFW. Exclusion fencing shall be removed once construction activities are complete.									
10. If special-status wildlife species are found on the site immediately prior to construction or during project construction, construction activities shall cease in the vicinity of the animal until the animal moves on its own (if possible, as determined by the Lead Biologist or biological monitor) outside of the project area. Additional mitigation measures specific to special-status plants; Smith's blue butterfly; black legless lizard, silvery legless lizard, and coast horned lizard; western burrowing; American badger; Monterey dusky-footed woodrat, California red-legged frog and California tiger salamander are described in Mitigation Measure 4.6-1f, 4.6-1g, 4.6-1h, 4.6-1j, 4.6-1k, and 4.6-1o. The Lead Biologist and Lead Agencies shall consult with wildlife resource agency(ies) with jurisdiction over the species regarding any additional avoidance, minimization, or mitigation measures that may be necessary if the animal does not move on its own. A report shall be prepared by the Lead Biologist to document the activities of the animal within the site; all fence construction, modification, and repair efforts; and movements of the animal once again outside the exclusion fence. This report shall be submitted to the CPUC and pertinent wildlife agencies with jurisdiction over the wildlife species.									

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
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<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p>11. Vegetation removal and grading activities shall be conducted during daylight hours. Immediately prior to conducting vegetation removal or grading activities inside fenced exclusion areas, the Lead Biologist or a qualified biologist shall survey within the exclusion area to ensure that no special-status species are present. The Lead Biologist or a qualified biologist shall also monitor vegetation removal or grading activities inside fenced exclusion areas for the presence of special-status species. If special-status species are present, then measure 10 above shall be implemented.</p> <p>12. To prevent the inadvertent entrapment of special-status wildlife during construction, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered with plywood or similar materials at the close of each working day, or escape ramps constructed of earth fill or wooden planks shall be positioned within the excavations to allow special-status wildlife to escape on their own. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If trapped animals are observed, escape ramps or structures shall be installed immediately to allow escape. If listed species are trapped, they shall only be relocated with authorization from USFWS and/or CDFW, as appropriate.</p> <p>13. All construction pipes, culverts, or similar structures that are stored at a construction site for one or more overnight periods and with a diameter of 4 inches or more shall be inspected for special-status wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a special-status animal is discovered inside a pipe, that section of pipe shall not be moved until the appropriate resource agency, with jurisdiction over that species, has been consulted to determine the appropriate method for relocation. If necessary, under the direct supervision of the qualified biologist, the pipe may be moved once to remove it from the path of construction activity until the animal has escaped.</p> <p>14. All vertical tubes used in project construction, such as chain link fencing poles or signage mounts, shall be temporarily or permanently capped at the time they are installed to avoid the entrapment and death of special-status birds.</p> <p>15. Water used for dust abatement shall be minimized in an effort to avoid the formation of puddles that could attract common ravens and other predators to the construction work areas.</p> <p>16. No vehicle or equipment parked in the project area shall be moved prior to inspecting the ground beneath the vehicle or equipment for the presence of wildlife. If present, the animal shall be left to move on its own.</p> <p>17. All vehicles and equipment shall be in proper working condition to ensure that there is no potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Lead Biologist shall be informed of any hazardous spills within 24 hours of the incident. Hazardous spills shall be immediately cleaned up and the contaminated soil shall be properly disposed of at a licensed facility.</p> <p>18. A trash abatement program shall be implemented during construction. Trash and food items shall be contained in closed containers and removed from the construction site daily to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs.</p> <p>19. Workers shall be prohibited from feeding wildlife and bringing pets and firearms to the construction work areas.</p> <p>20. Intentional killing or collection of wildlife species, including special-status species in the project area and surrounding areas shall be strictly prohibited.</p> <p>21. All temporarily disturbed areas shall be returned to pre-project conditions or better. Existing access roads within the CEMEX site shall be returned to their existing use.</p> <p>This measure also applies to periodic maintenance of the subsurface slant wells.</p>									

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
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<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1d: Protective Measures for Western Snowy Plover.</b> Construction contractors shall be required to implement the following measures to protect western snowy plover:</p> <ol style="list-style-type: none"> <li>1. CalAm shall require that its construction contractor(s) implement all avoidance and minimization measures required by USFWS as part of the FESA Section 7 consultation between the ONMS and USFWS.</li> <li>2. Construction work at the slant well heads and along the segment of the Source Water Pipeline located west of the CEMEX processing plant shall occur during the western snowy plover non-breeding season (defined as October 1 through February 28) unless otherwise approved by the USFWS.</li> <li>3. For work that cannot be completed during the non-nesting season, the following steps to obtaining USFWS approval shall be implemented:               <ol style="list-style-type: none"> <li>a. CalAm shall include in final design submittals to the Lead Agencies and USFWS proposed feasible methods of avoidance and minimization of impacts on nesting western snowy plovers. Such measures may include, but are not limited to, installation of visual or noise barriers, limiting the type of construction, installation of noise controls on equipment, and other measures that achieve visual separation and/or noise reduction. CalAm shall obtain concurrence from Lead Agencies and USFWS on this proposed suite of avoidance and minimization measures prior to start of construction of the subsurface slant wells and Source Water Pipeline. Measures shall be implemented as necessary as described in item d, below.</li> <li>b. CalAm shall engage the services of Point Blue or other qualified western snowy plover biologist (subject to approval by USFWS) to perform one year of surveys during the nesting season preceding construction to determine whether nesting is occurring within sight or audible range of the slant well head locations or Source Water Pipeline.</li> <li>c. If findings from the nesting season survey are negative, then the qualified western snowy plover biologist shall conduct additional pre-construction nesting surveys within 24 hours of initiation of construction activities within 300 feet of all construction work areas to determine if any snowy plover nests are present. If there is a break of 3 days or more in construction activities, a survey shall be conducted before construction begins again.</li> <li>d. If nests are observed within 300 feet of construction activities, the qualified biologist shall notify and consult with USFWS to determine whether construction may proceed, based on detailed information on location of nest(s), proximity to construction, topography, and noise environment. Additional avoidance or minimization measures shall be implemented prior to initiating construction activities. Construction may proceed if, with the incorporation of such avoidance or minimization measures, the work would not cause an adult to abandon an active nest or young, change an adult's behavior so it could not care for an active nest or young, or directly impact an adult or young, or as allowed within the take provisions authorized by USFWS.</li> <li>e. The biologist shall conduct periodic monitoring during construction to determine if there are any nest starts. Nest starts shall be reported to USFWS to determine whether construction on all or portions of the slant wells or Source Water Pipeline need to be suspended for the duration of nesting and fledging. The biologist will inform the decision with detailed information on location of nest(s), proximity to construction, topography, and noise environment. Construction may continue, subject to USFWS approval, if, with the incorporation of avoidance or minimization measures identified under item a, above, and deemed necessary by USFWS, the work would not cause an adult to abandon an active nest or young, change an adult's behavior so it could not care for an active nest or young, or directly impact an adult or young, or as allowed within the take provisions authorized by USFWS.</li> </ol> </li> </ol>	X						CalAm shall provide and obtain approval from CPUC and USFWS of final design submittals and provide a copy of all permits and approvals issued by USFWS as well as any subsequent modifications approved and related avoidance and minimization measures required by USFWS. The Lead Biologist hired by CalAm will oversee compliance with avoidance and minimization measures for Western Snowy Plover and their habitat and as directed in permit conditions approved and monitored by USFWS. Documentation of these measures, including species found on-site, will be sent to ONMS, CPUC, and USFWS for monitoring of effectiveness.	Prior to and during construction activities and during maintenance activities at the slant well sites.	Implementation of all avoidance and minimization measures required by USFWS for Western Snowy Plover, including those in this mitigation measure, prior to the start of construction, during construction, and during maintenance of the slant wells to ensure that impacts on Western Snowy Plovers and their nests are avoided or that all conditions of any take permits/authorizations are successfully implemented.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p>4. For construction during the breeding season that is approved by USFWS, visual barriers shall be installed around any work area located within line of sight of potential nesting habitat. Visual barriers shall be constructed at an adequate height and width to visually block construction equipment and construction crews from snowy plover nesting habitat. Final designs of the visual barriers shall be coordinated with USFWS. Existing sand dunes may serve as visual barriers.</p> <p>5. For work conducted during the non-nesting season, a qualified biologist will evaluate the nature and extent of wintering plover activity in the project area no more than 3 days prior to construction and inform CalAm so they can implement avoidance and minimization measures, such as those listed in subsection 3a, that avoid or minimize disturbance to plovers. The biologist shall conduct periodic monitoring during construction to ensure that minimization measures are implemented to avoid or minimize disturbance to plovers. The measures shall ensure that wintering plovers are not directly impacted by construction activities.</p> <p>6. CalAm shall restore all temporarily impacted potential snowy plover habitat following construction. At a minimum the restored site shall meet the following performance standards by the fifth year following restoration:</p> <ul style="list-style-type: none"> <li>a. Temporarily impacted areas are returned to pre-project conditions or greater</li> <li>b. Native vegetation cover shall be at least 70 percent of baseline native vegetation cover</li> <li>c. The restoration area shall have no more cover by invasives than the baseline</li> </ul> <p>Restoration and performance standards shall be described in a Habitat Mitigation and Monitoring Plan consistent with <b>Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan)</b>.</p> <p>7. Anti-perching devices, such as bird spikes or wire strips, shall be installed and maintained on the top of the proposed electrical control cabinets to discourage potential plover predators.</p> <p>8. Permanent loss of western snowy plover habitat, to be determined based on final design and construction specifications, will be compensated at a minimum ratio of 3:1. Compensation may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat for western snowy plover.</p> <p>Prior to project implementation, CalAm shall prepare a Habitat Mitigation and Monitoring Plan, as described in Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan), which will describe either onsite or offsite creation, restoration, enhancement, or preservation. The plan will include actions to benefit western snowy plover, in conjunction with providing mitigation for special-status plants, as described in Mitigation Measure 4.6-1e, below. The plan will be subject to USFWS input and approval. It will describe creation, restoration, and/or enhancement methods that may include, but not be limited to removal of ice plant, stabilization of dune sand, planting, seeding or other means of re-establishing native plant species. It will describe measures to manage recreational activities to benefit western snowy plover. Measures may include requiring that dogs are on leash, fencing is installed around breeding areas, and kite flying is restricted in the breeding season.</p> <p>CalAm will identify and secure access rights and other approvals to implement the plan, and will execute the plan. CalAm will conduct, or will support a qualified third party monitor to conduct annual monitoring of performance measures for a minimum of five years, such as cover, density and diversity of native plant species, thresholds of non-native plant abundance, and stability of dune sands. At a minimum, the compensation areas shall meet the following performance standards by the fifth monitoring year:</p> <ul style="list-style-type: none"> <li>a. Native vegetation cover shall be at least 70 percent of the native vegetation cover in the impact area.</li> <li>b. The compensation areas shall not be heavily vegetated.</li> <li>c. Invasive species cover shall be less than or equal to the invasive species cover in the impact area.</li> <li>d. No barrier between the compensation site and the water.</li> <li>e. No significant erosion.</li> </ul>									

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
This measure also applies to periodic maintenance of the subsurface slant wells, which would result in a permanent loss of western snowy plover habitat. Compensatory mitigation for permanent loss from periodic maintenance of the subsurface slant wells would only be applied once and would not be applied for each five-year maintenance event.									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1e: Avoidance and Minimization Measures for Special-status Plants.</b></p> <p>Prior to construction, CalAm or its contractor shall conduct focused botanical survey(s) for special-status plants in all potentially suitable habitat during the appropriate blooming period for each species and in accordance with the guidelines established by California Department of Fish and Game in <i>Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities</i> (CDFG, 2009). Maps depicting the results of these surveys shall be prepared for use in final design. If more than two years elapse between the focused botanical surveys and commencement of ground disturbance activities, a final set of appropriately-timed focused botanical surveys shall be conducted and populations mapped. The results of these final surveys shall be combined with previous survey results to produce habitat maps showing habitat where the special-status plants have been observed during either of the focused botanical surveys conducted for each facility site.</p> <p>Special-status plant species are widespread throughout the project area, and could occur at the following facility locations: subsurface slant well site, MPWSP Desalination Plant site, ASR-5 and ASR-6 Wells sites, and along the Source Water Pipeline, new Desalinated Water Pipeline and new Desalinated Water Pipeline Optional Alignment, the Castroville Pipeline and Castroville Pipeline Optional Alignments, new Transmission Main and new Transmission Main Optional Alignment, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, and ASR Recirculation Pipeline, Ryan Ranch-Bishop Interconnection Improvements, and Main System-Hidden Hills Interconnection Improvements, and at proposed staging areas.</p> <ol style="list-style-type: none"> <li>To the extent feasible, project facilities shall be sited to avoid permanent and temporary impacts on special-status plants and their required constituent habitat elements.</li> <li>Special-status plants located within temporary construction areas shall be fenced or flagged for avoidance (if feasible) prior to construction. The Lead Biologist or the appointed biological monitor shall ensure compliance with off-limits areas. If avoidance is not feasible, seasonal avoidance measures (i.e., limited operating periods based on timing of annual plant dormancy), or temporarily placing heavy fabric or wooden mats over the affected habitat shall be applied as appropriate. Topsoil salvage and site restoration may also be implemented, to be determined by the Lead Biologist and USFWS and CDFW, as appropriate, to ensure the site is returned to pre-construction conditions.</li> <li>For potential impacts on listed plant species, such as Menzies' wallflower, sand gilia, Monterey spineflower, and Yadon's rein orchid, CalAm shall comply with the FESA CESA by implementing any requirements from USFWS and CDFW consultation. For state listed rare plants, a state Incidental Take Permit (ITP) may be required which would provide conditions for allowable take and measures to compensate impacts on rare plants.</li> <li>For HMP plant species on former Fort Ord lands, plants shall be salvaged, under the direction of a qualified biologist, as necessary, per the requirements of the HMP, and in accordance with any requirements from USFWS and CDFW.</li> <li>If avoidance is not feasible, compensation for temporary or permanent loss of special-status plant occurrences, in the form of land purchase or restoration, shall be provided at a minimum 1:1 ratio for temporary impacts and 2:1 ratio for permanent impacts. Compensation for loss of special-status plant populations may include the restoration or enhancement of temporarily impacted areas, purchase and permanent stewardship of known occupied habitat or the restoration and reintroduction of populations in degraded, unoccupied habitat. Restoration or reintroduction may</li> </ol>	X		X	X	X	X	CalAm shall provide and obtain approval from CPUC and USFWS/CDFW of final design submittals which incorporate the required botanical surveys and habitat maps and demonstrate either that facilities are sited to avoid impacts on special-status plants/habitat elements or that required restoration will be achieved by way of a Habitat Mitigation and Monitoring Plan or compensatory credits approved by all required resource and local agencies consistent with the requirements of this MM. A Lead Biologist hired by CalAm will oversee compliance with avoidance and minimization measures for special-status plant species and sensitive natural communities and as directed in permit conditions approved and monitored by USFWS and CDFW.	Prior to construction activities and subsequent maintenance activities at the slant well sites.	Use of maps prepared with location of special-status plants in final design drawings and documented evidence that permanent and temporary impacts on special-status plants and their required constituent habitat elements are avoided. Compensation, by restoration or credits, shall be provided as approved by all required resource and local agencies when avoidance is not possible.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p>be located on- or offsite. At a minimum, the compensation areas shall meet the following performance standards by the fifth year following initiation of compensation efforts:</p> <ol style="list-style-type: none"> <li>The compensation area shall be at least the same size as the impact area.</li> <li>Native vegetation cover shall be at least 70 percent of the native vegetation cover in the impact area</li> <li>Population of the impacted special-status species shall have either: <ol style="list-style-type: none"> <li>at least 60 percent cover of the impact area, or</li> <li>at least 70 percent survival of installed plants</li> </ol> </li> <li>Invasive species cover shall be less than or equal to the invasive species cover in the impact area</li> </ol> <p>Additionally, restored populations shall have greater than the number of individuals of the impacted population, in an area greater than or equal to the size of the impacted population, for at least 3 consecutive years without irrigation, weeding, or other manipulation of the restoration site.</p> <p>6. CalAm shall prepare a <b>Habitat Mitigation and Monitoring Plan, as described in Mitigation Measure 4.6-1n</b> (Habitat Mitigation and Monitoring Plan), which will describe either onsite or offsite restoration.</p> <p>Alternatively, compensatory credits may be purchased through a USFWS- and/or CDFW-approved mitigation bank, or USFWS-approved Habitat Conservation Plan.</p> <p>This measure also applies to periodic maintenance of the subsurface slant wells, which would result in a permanent loss of special-status plants occurring at that site. Compensatory mitigation for permanent loss from periodic maintenance of the subsurface slant wells would only be applied once and would not be applied for each five-year maintenance event.</p>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1f: Avoidance and Minimization Measures for Smith's Blue Butterfly.</b></p> <p>CalAm or its construction contractor(s) shall implement the following measures to reduce impacts on Smith's blue butterfly during construction:</p> <ol style="list-style-type: none"> <li>CalAm shall require that its construction contractor(s) implement all avoidance and minimization measures required by USFWS as part of the FESA Section 7 consultation between ONMS and USFWS.</li> <li>Floristic botanical surveys of all suitable habitat for coast buckwheat and seacliff buckwheat, both of which are host plants to Smith's blue butterfly, shall be conducted by a qualified biologist during project design and prior to project implementation. Maps depicting the results of these surveys shall be prepared to document the location of the host plants within or adjacent to the project area.</li> <li>Construction of project elements shall be planned to avoid mapped host plants for Smith's blue butterfly whenever feasible.</li> <li>If it is not feasible to avoid disturbance to host plants during project construction, the following shall be implemented: <ol style="list-style-type: none"> <li>Prior to the start of construction activities and before conducting preconstruction surveys for Smith's blue butterfly, the Lead Biologist or an appointed qualified biologist shall prepare a protect-in-place and relocation plan for Smith's blue butterfly and its host plants. If either is found in areas subject to permanent habitat or plant loss, then plants would be salvaged and relocated in accordance with the plan. The relocation plan shall be submitted to USFWS for approval. The relocation plan shall define the study area, describe appropriate handling and relocation methods (such as digging up and removing individual plants, duff, and/or soil and</li> </ol> </li> </ol>	X		X	X	X	X	<p>CalAm shall obtain approval from USFWS/ONMS, and shall provide copies thereof to CPUC, along with final design submittals and a protect in place and relocation plan which incorporates the required botanical surveys and habitat maps and demonstrate either that facilities are sited to avoid impacts on Smith's blue butterfly and its host plants or that required restoration will be achieved by way of a Habitat Mitigation and Monitoring Plan or compensatory credits approved by all required resource and local agencies consistent with the requirements of this MM. A Lead Biologist hired by CalAm will oversee compliance with avoidance and minimization measures for Smith's blue butterfly and sensitive natural communities and as directed in permit conditions approved and monitored by USFWS and CDFW. Documentation of these measures, including species found on-site, will be sent to CPUC, USFWS, and CDFW for monitoring of effectiveness and for compensatory mitigation.</p>	<p>Prior to and during construction activities and during maintenance activities at the slant well sites.</p>	<p>Use of maps prepared with location of Smith's blue butterfly and its habitat in final design drawings and documented evidence that permanent and temporary impacts on special-status plants and their required constituent habitat elements are avoided. Compensation, by restoration or credits, shall be provided as approved by all required resource and local agencies when avoidance is not possible.</p>

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p>moving them to a new location), and identify appropriate relocation sites. Surveys shall be conducted at relocation sites to determine the existing Smith's blue butterfly population size and ensure that the relocation sites will not become overpopulated. Only relocation sites that are not overpopulated and have suitable habitat conditions (e.g. soils, vegetation, etc.) shall be used.</p> <p>b. If preconstruction surveys identify butterflies or host plants in areas subject only to temporary disturbance that do not require plant removal, then the plants, and leaf litter and soil which may hold dormant butterfly pupae, would be protected in place with heavy fabric, plywood or other mats (depending on the stability of the underlying soil) to allow construction vehicles to pass over. Following construction, the fabric or mats would be carefully removed and the area allowed to recover. Short-term damage to buckwheat populations is expected to be low.</p> <p>c. A qualified biologist shall survey the work area no more than 30 days before the onset of ground disturbance. If any life stage of the Smith's blue butterfly or its host plants is found within the project area boundary, the Lead Biologist or qualified biologist shall relocate plants, duff, and/or soil, from the site before construction begins per the relocation plan described above.</p> <p>5. Upon completion of construction activities, CalAm shall restore Smith's blue butterfly habitat temporarily impacted during construction. Compensatory mitigation for permanent impacts shall be provided either onsite or offsite at a minimum ratio of 2:1. Compensation for loss of host plant populations may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. At a minimum the restoration or compensation sites shall meet the following performance standards by the fifth year following restoration:</p> <p>a. Temporarily impacted areas are returned to pre-project conditions or greater</p> <p>b. Native vegetation cover shall be at least 70 percent of baseline/impact area native vegetation cover</p> <p>c. The population of coast buckwheat and/or seacliff buckwheat shall have either:</p> <p>i. at least 60 percent cover of the baseline/impact area, or</p> <p>ii. at least 70 percent survival of installed plants</p> <p>d. No more cover by invasives than the baseline/impact area</p> <p>Restoration and mitigation activities shall be described in the Habitat Mitigation and Monitoring Plan prescribed by <b>Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan)</b>.</p> <p>Alternatively, compensatory credits may be purchased through an approved mitigation bank, or approved Habitat Conservation Plan.</p> <p>This measure also applies to periodic maintenance of the subsurface slant wells, which would result in a permanent loss of Smith's blue butterfly habitat. Compensatory mitigation for permanent loss from periodic maintenance of the subsurface slant wells would only be applied once and would not be applied for each five-year maintenance event.</p>									

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

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<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1g: Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard.</b></p> <p>The Lead Biologist shall appoint a qualified biologist possessing a Scientific Collecting Permit issued by CDFW for black legless lizard, silvery legless lizard, and coast horned lizard to conduct preconstruction surveys for legless lizards and coast horned lizards within 24 hours prior to the initiation of ground disturbing activities or vegetation clearing in suitable habitats such as central dune scrub, coast sage scrub, and central maritime chaparral.</p> <ol style="list-style-type: none"> <li>Prior to conducting the surveys, the qualified biologist shall prepare a relocation plan that describes the appropriate survey and handling methods for the lizards, and identifies nearby relocation sites where the lizards would be relocated if found during the preconstruction surveys. Surveys shall be conducted at relocation sites to determine the existing lizard population size and ensure that the relocation sites will not become overpopulated. Only relocation sites that are not overpopulated and have suitable habitat conditions (e.g., soils, moisture content, vegetation, aspect) shall be used. The relocation plan shall be submitted to CDFW for approval prior to the start of construction activities.</li> <li>Legless lizard surveys shall be conducted by hand raking soil and leaf litter beneath brush. If Legless lizards are encountered, they shall be salvaged and relocated per the relocation plan.</li> <li>Coast horned lizard surveys shall be conducted by walking transects spaced appropriately to allow for 100 percent visual coverage in search of lizards under shrubs, along gravelly-sandy areas, or any other suitable habitat. Any lizard encountered shall be relocated per the relocation plan.</li> </ol> <p>This measure also applies to periodic maintenance of the subsurface slant wells.</p>	X		X	X	X	X	<p>CalAm shall provide the CPUC with the name of the biologist to conduct preconstruction lizard surveys, a copy of his/her valid Scientific Collecting Permit and the CDFW-approved relocation plan. A Lead Biologist hired by CalAm will oversee compliance with avoidance and minimization measures for black legless lizard, silvery legless lizard, and coast horned lizard and as directed in conditions approved and monitored by CDFW. Documentation of these measures, including species found on-site and collected, will be sent to CPUC and CDFW for monitoring of effectiveness and for compensatory mitigation.</p>	<p>Prior to construction activities and subsequent maintenance activities at the slant well sites.</p>	<p>Preconstruction surveys demonstrate absence of lizards or if present lizards are relocated to CDFW-approved relocation site.</p>
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1h: Avoidance and Minimization Measures for Western Burrowing Owl.</b></p> <p>The following measures shall be implemented to avoid and minimize impact on western burrowing owl:</p> <ol style="list-style-type: none"> <li>Prior to the start of construction activities in or around suitable burrowing owl habitat, the Lead Biologist shall appoint a qualified biologist to conduct protocol surveys for burrowing owl. The survey methodology shall be consistent with the methods outlined in the <i>Staff Report on Burrowing Owl Mitigation</i> (CDFG, 2012). The surveys shall consist of walking parallel transects spaced 7 to 20 meters (23 to 65 feet) apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls. A copy of the protocol survey results shall be submitted to the CPUC and CDFW upon request. Protocol surveys shall be conducted within both the breeding and non-breeding seasons to determine the presence/absence of burrowing owls.</li> <li>A qualified biologist shall conduct preconstruction surveys of the permanent and temporary impact areas in or around suitable burrowing owl habitat to locate active breeding or wintering burrowing owl burrows less than 14 days prior to construction and/or prior to exclusion fencing installation. The methodology for the preconstruction surveys shall be consistent with the methods outlined in the <i>Staff Report on Burrowing Owl Mitigation</i>.</li> <li>If no burrowing owls are detected, no additional action is necessary.</li> <li>In areas positive for burrowing owl presence, the Lead Biologist or qualified biological monitor shall be onsite during all construction activities in areas where burrowing owls are determined to be present.</li> </ol>	X		X	X	X	X	<p>CalAm shall provide the CPUC with the name of the biologist(s) to conduct protocol and preconstruction owl surveys, copies of all survey results and copies of all CDFW-approved owl buffers and related plans (e.g., Burrowing Owl Exclusion Plan, Burrowing Owl Habitat Mitigation Plan, and any other related buffer coordination/authorizations).</p>	<p>Prior to and during construction activities and during subsequent maintenance activities at the slant well sites.</p>	<p>Protocol and preconstruction surveys demonstrate absence of burrowing owls or if present that all applicable CDFW-approved buffers, Exclusion and Mitigation Plans are fully implemented and/or compensatory mitigation provided.</p>



**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria																						
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule																							
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>																															
<p>5. If burrowing owls are detected during the nesting and fledging seasons (April 1 to August 15 and August 16 to October 15, respectively), no ground-disturbing activities shall be permitted within the distances specified in <b>Table 4.6-8</b> from an active burrow, unless otherwise authorized by CDFW. The specified buffer distance ranges from 656 feet to 1,640 feet, according to the time of year and the level of disturbance. Buffers shall be established in accordance with <b>Table 4.6-8</b> and occupied burrows shall not be disturbed during the nesting season unless a qualified biologist approved by CDFW verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Burrowing owls shall not be moved or excluded from burrows during the breeding season (April 1 to October 15). The buffer distance can be reduced with authorization from CDFW if construction activities would not cause an adult to abandon an active nest or young or change an adult's behavior so it could not care for an active nest or young.</p> <p>6. During the non-breeding (winter) season (October 16 to March 31), consistent with <b>Table 4.6-8</b>, ground-disturbing work shall maintain a distance ranging from 164 to 1,640 feet from any active burrows, depending on the level of disturbance, to be determined through coordination with CDFW. The buffer distance can be reduced with authorization from CDFW if construction activities would not cause the owl to abandon its winter burrow. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be displaced from winter burrows according to recommendations made in the <i>Staff Report on Burrowing Owl Mitigation</i>.</p> <p align="center"><b>TABLE 4.6-8 BURROWING OWL BURROW BUFFERS</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Location</th> <th rowspan="2">Time of Year</th> <th colspan="3">Level of Disturbance</th> </tr> <tr> <th>Low</th> <th>Medium</th> <th>High</th> </tr> </thead> <tbody> <tr> <td>Nesting sites</td> <td>April 1–August 15</td> <td>656 feet</td> <td>1,640 feet</td> <td>1,640 feet</td> </tr> <tr> <td>Nesting sites</td> <td>August 16–October 15</td> <td>656 feet</td> <td>656 feet</td> <td>1,640 feet</td> </tr> <tr> <td>Any occupied burrow</td> <td>October 16–March 31</td> <td>164 feet</td> <td>328 feet</td> <td>1,640 feet</td> </tr> </tbody> </table> <p>SOURCE: CDFG, 2012.</p>	Location	Time of Year	Level of Disturbance			Low	Medium	High	Nesting sites	April 1–August 15	656 feet	1,640 feet	1,640 feet	Nesting sites	August 16–October 15	656 feet	656 feet	1,640 feet	Any occupied burrow	October 16–March 31	164 feet	328 feet	1,640 feet								
Location			Time of Year	Level of Disturbance																											
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Any occupied burrow	October 16–March 31	164 feet	328 feet	1,640 feet																											
<p>7. Burrowing owls shall not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed by the Lead Biologist, approved by CDFW, and submitted to the CPUC. At a minimum, the plan shall include the following:</p> <ol style="list-style-type: none"> <li>Confirmation by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding the use of a scope to visually inspect the burrow;</li> <li>Specifications regarding the type of scope to be used and the appropriate timing of using a scope to visually inspect burrows to avoid disturbance of individual owls;</li> <li>Occupancy factors to look for and what shall guide determination of vacancy and excavation timing;</li> <li>Methods for burrow excavation. Excavation using hand tools with refilling to prevent reoccupation is preferable;</li> <li>Removal of other potential owl burrow surrogates or refugia onsite;</li> <li>Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;</li> </ol>																															

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: CalAm Reports On, and the CPUC Monitors all Mitigation Measures	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p>g. Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use and to avoid take;</p> <p>h. Methods to ensure the impacted site shall continually be made inhospitable to burrowing owls and fossorial mammals (e.g., by allowing vegetation to grow tall, heavy disking, or immediate and continuous grading) until development is complete.</p> <p>8. Site monitoring shall be conducted prior to, during, and after exclusion of burrowing owls from their burrows sufficient to ensure take is avoided. Prior to exclusion activities, daily monitoring shall be conducted for one week to confirm young owls have fledged if the exclusion occurs immediately after the end of the breeding season.</p> <p>9. If burrowing owls are found on-site, compensatory mitigation for loss of breeding and/or wintering habitat shall be implemented onsite or offsite in accordance with burrowing owl <i>Staff Report on Burrowing Owl Mitigation</i> guidance and in consultation with CDFW. If compensatory mitigation is necessary, CalAm shall detail the compensatory mitigation in a Burrowing Owl Habitat Mitigation Plan (which shall be incorporated into the Habitat Mitigation and Monitoring Plan described in <b>Mitigation Measure 4.6-1n</b>). At a minimum, the following measures shall be implemented:</p> <p>a. Temporarily disturbed habitat shall be restored to pre-construction conditions, including soil decompaction and revegetation.</p> <p>b. Permanent impacts on nesting, occupied and satellite burrows, and any other burrowing owl habitat shall be mitigated such that the habitat acreage, number of burrows, and number of burrowing owls impacted are replaced. Compensatory mitigation may include the permanent conservation of lands with similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) as those lands where the permanent loss of habitat would occur. Conservation lands shall provide habitat for burrowing owl nesting, foraging, wintering, and/or dispersal (i.e., during breeding and nonbreeding seasons) comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals.</p> <p>Alternatively, compensatory credits may be purchased through an approved mitigation bank, or approved Habitat Conservation Plan.</p>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1i: Avoidance and Minimization Measures for Nesting Birds.</b></p> <p>This measure applies to all nesting birds protected by the federal Migratory Bird Treaty Act and Section 3503 of the California Fish and Game Code, except for western snowy plover and western burrowing owl, which are addressed in Mitigation Measure 4.6-1d and 4.6-1h, respectively.</p> <p>Nesting birds may be present at all of the proposed facility sites. A qualified biologist shall conduct preconstruction avian nesting surveys prior to initiation of construction activities at all facility sites, unless otherwise indicated below.</p> <p>1. No preconstruction surveys or avoidance measures are required for construction activities that would be completed entirely during the non-nesting season (September 16 to January 31).</p> <p>2. For all construction activities scheduled to occur during the nesting season (February 1 to September 15), the qualified biologist shall conduct a preconstruction avian nesting survey no more than 10 days prior to the start of staging, site clearing, and/or ground disturbance. Copies of the survey results shall be submitted to the CPUC.</p> <p>3. If construction activities at any given facility site begins in the non-breeding season and proceeds continuously into the breeding season, no surveys are required as long as a similar type of construction continues.</p> <p>4. If there is a break of 10 days or more in construction activities during the breeding season, a new nesting bird survey shall be conducted before reinitiating construction.</p>	X		X	X	X	X	CalAm shall provide to the CPUC the name of the biologist(s) to conduct required preconstruction nesting surveys and construction monitoring, copies of all surveys and monitoring reports prepared by the biologist(s) and copies of all related CDFW buffer and mitigation consultations, approvals and/or authorizations.	Prior to and during construction activities and during subsequent maintenance activities at the slant well sites.	Preconstruction surveys demonstrate absence of active nests or if present that all applicable CDFW-approved buffers and avoidance/minimization measures are fully implemented.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p>5. The surveying biologist shall be capable of determining the species and nesting stage without causing intrusive disturbance. The surveys shall cover all potential nesting sites within 500 feet of the project area for raptors and within 300 feet for other birds.</p> <p>If active nests are found in the project area or vicinity (500 feet for raptors and 300 feet for other birds), the nests shall be continuously surveyed for the first 24 hours prior to any construction related activities to establish a behavioral baseline and, once work commences, all nests shall be continuously monitored to detect any behavioral changes as a result of the project, if feasible. If behavioral changes are observed, work causing the change shall cease and CDFW shall be consulted for additional avoidance and minimization measures. The avoidance and minimization measures shall ensure that the construction activities do not cause the adult to abandon an active nest or young or change an adult's behavior so it could not care for an active nest or young.</p> <p>If continuous monitoring is not feasible, a no-disturbance buffer (at least 500 feet for raptors and 250 feet for other birds [or as otherwise determined in consultation with CDFW and USFWS] shall be created around the active nests). The buffer distance can be reduced with authorization from CDFW if construction activities would not cause an adult to abandon an active nest or young or change an adult's behavior so it could not care for an active nest or young. If the nest(s) are found in an area where ground disturbance is scheduled to occur, the project operator shall require that ground disturbance be delayed until after the birds have fledged.</p> <p>This measure also applies to periodic maintenance of the subsurface slant wells.</p>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1j: Avoidance and Minimization Measures for American Badger.</b></p> <p>The following measures shall be implemented to avoid and minimize impacts on American badger:</p> <ol style="list-style-type: none"> <li>1. A qualified biologist shall conduct preconstruction surveys for American badger dens prior to the start of construction at potentially affected sites. The survey results shall be submitted to the CPUC.</li> <li>2. Areas of suitable habitat for American badger in the project area include fallow agricultural and grazing land and non-native grasslands. Surveys shall be conducted wherever these vegetation communities exist within 100 feet of the project area boundary. Along pipeline alignments surveys shall be phased to occur within 14 days prior to disturbance along that portion of the alignment. Game cameras shall be used to record any movements at potentially active dens for no less than three (3) nights.</li> <li>3. Areas of suitable habitat for American badger in the project area include fallow agricultural and grazing land and non-native grasslands. Surveys shall be conducted wherever these vegetation communities exist within 100 feet of the project area boundary. Along pipeline alignments surveys shall be phased to occur within 14 days prior to disturbance along that portion of the alignment.</li> <li>4. If no potential American badger dens are found during the preconstruction surveys, no further action is required.</li> <li>5. If the biologist determines that any potential dens identified during the preconstruction surveys are inactive, the biologist shall excavate the dens by hand with a shovel to prevent use by badgers during construction.</li> <li>6. If active badger dens are found during the course of preconstruction surveys, the following measures shall be taken to avoid and minimize adverse effects on American badger: <ol style="list-style-type: none"> <li>a. Relocation shall be prohibited during the badger pupping season (typically February 15 to June 1).</li> <li>b. Construction activities shall not occur within 50 feet of active badger dens observed outside of the project area.</li> <li>c. The Lead Biologist shall contact CDFW immediately if natal badger dens are detected. Construction activities shall not occur within 200 feet of an active natal badger den. This buffer may be reduced, if approved by CDFW, and if construction would not alter the behavior of the adult or young in a way that would cause injury or death to those individuals.</li> </ol> </li> </ol>	X		X	X	X	X	CalAm shall provide the name and qualifications of the biologist(s) to conduct required preconstruction badger surveys to the CPUC for approval. CalAm shall also provide to the CPUC construction monitoring reports, copies of all surveys prepared by the biologist(s), copies of all related CDFW-approved buffers, den excavations and/or badger relocations and documentary evidence of compliance therewith.	Prior to and during construction activities.	Preconstruction surveys demonstrate absence of badgers and active dens or if present that all applicable CDFW-approved buffers, den excavations and/or badger relocations are fully implemented.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: CalAm Reports On, and the CPUC Monitors all Mitigation Measures	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
If the biologist determines that potential dens within the project area, and outside the breeding season, may be active, the biologist shall notify the CDFW. Badgers shall be passively relocated from active dens during the nonbreeding season. Passive relocation may include incrementally blocking the den entrance with soil, sticks, and debris for three to five days to discourage use of these dens prior to project disturbance. After the qualified biologist determines that badgers have abandoned any active dens found within the project area, the dens shall be hand-excavated with a shovel to prevent re-use during construction.									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1k: Avoidance and Minimization Measures for Monterey Dusky-Footed Woodrat.</b></p> <p>The following measures shall be implemented to avoid and minimize impacts on Monterey dusky-footed woodrat:</p> <ol style="list-style-type: none"> <li>1. A qualified wildlife biologist shall conduct preconstruction surveys for Monterey dusky-footed woodrat. The surveys shall be conducted within 14 days prior to the start of construction in suitable habitat and shall identify any woodrat nests located within 50 feet of anticipated construction disturbance areas.</li> <li>2. If woodrat nests are found during the preconstruction surveys, the wildlife biologist shall conduct additional surveys throughout the duration of construction activities at the potentially affected facility site to identify any newly constructed woodrat nests.</li> <li>3. If nests are observed outside of the construction area, the qualified biologist shall demarcate a minimum 50-foot buffer area with orange construction fencing and require that all construction activities and disturbance remain outside of the fencing.</li> <li>4. Active woodrat nests located within the anticipated construction disturbance areas shall be relocated. Nests shall be relocated outside of the peak breeding season, (peak breeding season is typically February through November) to minimize disturbance to young woodrats. Relocation of woodrats and/or their nests shall be conducted by the Lead Biologist or qualified wildlife biologist as follows: <ol style="list-style-type: none"> <li>a. Clear understory vegetation from around the nest using hand tools.</li> <li>b. After all vegetative cover has been cleared around the nest, the biologist shall gently disturb the nest to encourage the woodrat(s) to abandon the nest and seek cover in adjacent habitat.</li> <li>c. Once the woodrats have left the nest, the biologist shall carefully relocate the nest sticks to suitable habitat outside of the construction disturbance area, piling the sticks at the base of trees or large shrubs if available. If multiple nests are relocated, the stick piles shall be placed at least 25 feet from one another.</li> <li>d. The Lead Biologist shall ensure potential health hazards to the biologists moving nests are addressed to minimize the risk of contracting diseases associated with woodrats and woodrat nests. These include hantavirus, Lyme disease, and plague. The biologists that relocate nests shall take the following precautionary safety measures: <ol style="list-style-type: none"> <li>i. Wear a Cal/OSHA-certified facial respirator to reduce inhalation of potential disease causing organisms.</li> <li>ii. Wear a white Tyvec protective suit to provide a barrier for ticks and fleas and facilitate their detection and removal and use gloves.</li> </ol> </li> <li>e. If young are encountered during dismantling of the nest, nest material shall be replaced and a 50-foot no-disturbance buffer shall be established around the active nest. The buffer shall remain in place until young have matured enough to disperse on their own accord and the nest is no longer active. Nesting substrate shall then be collected and relocated to suitable oak woodland habitat outside of the project area.</li> </ol> </li> </ol>	X		X	X	X	X	CalAm shall provide the name and qualifications of the biologist(s) to conduct required preconstruction dusky-footed woodrat surveys to the CPUC for approval. CalAm shall also provide to the CPUC construction monitoring reports, copies of all surveys prepared by the biologist(s) and copies of all related CDFW-approved buffers, active nest relocations and documentary evidence of compliance therewith.	Prior to and during construction.	Surveys demonstrate absence of dusky-footed woodrats and active nests or if present that all applicable CDFW-approved buffers, nest relocations and related biologist safety measures are fully implemented.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1I: Avoidance and Minimization Measures for Special-status Bats.</b></p> <p>A qualified biologist who is experienced with bat surveying techniques (including auditory sampling methods), behavior, roosting habitat, and identification of local bat species shall be consulted prior to initiation of construction activities to conduct a preconstruction habitat assessment to characterize potential bat habitat and identify active roost sites. The preconstruction habitat assessment shall be conducted within 100 feet of construction activities.</p> <p>Should potential roosting habitat or potentially active bat roosts be identified during the habitat assessment in trees and/or structures to be disturbed under the project, the following measures shall be implemented:</p> <ol style="list-style-type: none"> <li>1. Removal or disturbance of trees or structures identified as potential bat roosting habitat or active roosts shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, to the extent feasible. These dates avoid bat maternity roosting season (approximately April 15 – August 31) and periods of winter torpor (approximately October 15 – February 28).</li> <li>2. If removal or disturbance of trees and structures identified as potential bat roosting habitat or active roosts during the periods when bats are active is not feasible, a qualified biologist will conduct pre-construction surveys within 14 days prior to disturbance to further evaluate bat activity within the potential habitat or roost site. <ol style="list-style-type: none"> <li>a. If active bat roosts are not identified in potential habitat during preconstruction surveys, no further action is required prior to removal of- or disturbance to trees and structures within the preconstruction survey area.</li> <li>b. If active bat roosts or evidence of roosting is identified during pre-construction surveys, the qualified biologist shall determine, if possible, the type of roost and species. <ol style="list-style-type: none"> <li>i. If special-status bat species or maternity or hibernation roosts are detected during these surveys, appropriate species- and roost-specific avoidance and protection measures shall be developed by the qualified biologist in coordination with CDFW. Such measures may include postponing the removal of structures or trees, or establishing exclusionary work buffers while the roost is active. A minimum 100-foot no disturbance buffer shall be established around special-status species, maternity, or hibernation roosts until the qualified biologist determines they are no longer active. The size of the no-disturbance buffer may be adjusted by the qualified biologist, in coordination with CDFW, depending on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site, and if construction would not alter the behavior of the adult or young in a way that would cause injury or death to those individuals. <p>Under no circumstances shall active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist.</p> </li> <li>ii. If a non-maternity or hibernation roost (e.g., bachelor daytime roost) is identified, disturbance to- or removal of trees or structures may occur under the supervision of a qualified biologist as described under 3).</li> </ol> </li> </ol> </li> <li>3. The qualified biologist shall be present during tree and structure disturbance or removal if active non-maternity or hibernation bat roosts or potential roosting habitat are present. Trees and structures with active non-maternity or hibernation roosts or potential habitat shall be disturbed or removed only under clear weather conditions when precipitation is not forecast for three days and when nighttime temperatures are at least 50°F, and when wind speeds are less than 15 mph. <ol style="list-style-type: none"> <li>a. Trimming or removal of trees with active (non-maternity or hibernation) or potentially active roost sites shall follow a two-step removal process:</li> </ol> </li> </ol>	X		X	X	X	X	CalAm shall provide the name and qualifications of the biologist(s) to conduct required preconstruction bat habitat assessment and surveys to the CPUC for approval. CalAm shall also provide to the CPUC copies of all assessments/surveys and construction monitoring prepared by the biologist(s) and copies of all related CDFW-approved buffers, avoidance and protection measures and documentary evidence of compliance therewith.	Prior to and during construction activities and during maintenance activities at the slant well sites.	Surveys demonstrate absence of bat habitat and active roost sites or if present that all applicable CDFW-approved buffers and avoidance and protection measures are fully implemented.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
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<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p>i. On the first day of tree removal and under supervision of the qualified biologist, branches and limbs not containing cavities or fissures in which bats could roost, shall be cut only using hand tools (e.g., chainsaws).</p> <p>ii. On the following day and under the supervision of the qualified biologist, the remainder of the tree may be removed, either using hand tools or other equipment (e.g. excavator or backhoe).</p> <p>iii. All felled trees shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape, or be inspected once felled by the qualified biologist to ensure no bats remain within the tree and/or branches.</p> <p>b. Disturbance to or removal of structures containing or suspected to contain active bat (non-maternity or hibernation) or potentially active bat roosts shall be done in the evening and after bats have emerged from the roost to forage. Structures shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost. Removal will be completed the subsequent day.</p> <p>4. Bat roosts that begin during construction are presumed to be unaffected as long as a similar type of construction continues, and no buffer would be necessary. Direct impacts on bat roosts or take of individual bats will be avoided.</p>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1m: Avoidance and Minimization Measures for Native Stands of Monterey Pine.</b></p> <p>A qualified botanist or arborist shall conduct surveys for native stands of Monterey pine prior to completion of final project design documents. Individual Monterey pine trees existing within the construction work area shall be evaluated to determine if they are native occurrences, relics, or otherwise naturally-occurring remnants of the past historic range. Maps depicting the results of these surveys shall be prepared for consideration during final facility design. Native stands of Monterey pine could occur at the identified facility sites and pipeline alignments based on the historical extent of native Monterey pines and biological reconnaissance surveys.</p> <p>To the extent feasible, project facilities shall be sited and construction activities planned to avoid impacts on native stands of Monterey pine. Any native stands of Monterey pines located within the anticipated construction disturbance area shall be fenced or flagged for avoidance prior to construction, and a biological monitor shall be present to ensure compliance with off-limits areas.</p> <p>If removal of native stands of Monterey pine cannot be avoided, trees shall be replaced at a 2:1 ratio for trees removed or directly impacted by construction activities. Only local Monterey pine genetic stock shall be used for replanting at the project site. Replacement plantings shall be planted contiguous with other individuals of the same species in areas that are determined to have suitable site conditions. Protective fencing shall be installed around the seedlings to protect against disturbance. Replacement trees shall be maintained and monitored for a period of five years and have a minimum of 70 percent survival in the fifth monitoring year to ensure success. The Habitat Mitigation and Monitoring Plan to be prepared in accordance with <b>Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan)</b> shall detail the monitoring requirements and success criteria.</p> <p>This mitigation measures applies to native stands of Monterey pines. Independent of whether Monterey pines in the project area are considered native stands, individual trees may be subject to local tree ordinances; see <b>Mitigation Measure 4.6-5 (Compliance with Local Tree Policies and Ordinances)</b>.</p>	X		X	X	X	X	<p>CalAm shall provide the name and qualifications of the botanist(s) to conduct required preconstruction surveys to the CPUC for approval. CalAm shall also provide to the CPUC copies of all assessments/surveys and construction monitoring prepared by the botanist(s) and copies, and avoidance and protection measures and documentary evidence of compliance therewith. CalAm shall also provide and obtain approval from CPUC and all other required regulatory and local agencies of final design submittals which incorporate the required surveys and demonstrate either that facilities are sited to avoid impacts on native stands of Monterey pine or that required replacement will be achieved by way of a Habitat Mitigation and Monitoring Plan approved by all required resource and local agencies consistent with the requirements of this mitigation measure.</p>	<p>Prior to construction activities and subsequent maintenance activities at the slant well sites.</p>	<p>Surveys and final design plans demonstrate avoidance of all native stands of Monterey pine or compensatory mitigation by replanting at a 2:1 replacement ratio and monitoring of success to ensure a minimum of 70 percent survival in the fifth monitoring year if avoidance is not possible.</p>

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

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	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1n: Habitat Mitigation and Monitoring Plan.</b></p> <p>CalAm shall develop and submit a Habitat Mitigation and Monitoring Plan (HMMP) to the appropriate resource agencies (CCC, CDFW, CCRWQCB, USACE, USFWS, and local agencies that require a habitat mitigation and monitoring plan) for approval prior to project construction. The HMMP will be a comprehensive document that will describe all of restoration and compensatory mitigation requirements, including the required performance standards, identified in <b>Mitigation Measure 4.6-1d: Protective Measures for Western Snowy Plover, Mitigation Measure 4.6-1e: Avoidance and Minimization Measures for Special-status Plants, Mitigation Measure 4.6-1f: Avoidance and Minimization Measures for Smith’s Blue Butterfly, Mitigation Measure 4.6-1h: Avoidance and Minimization Measures for Western Burrowing Owl, Mitigation Measure 4.6-1m: Avoidance and Minimization Measures for Native Stands of Monterey Pine, Mitigation Measure 4.6-1o: Avoidance and Minimization Measures for California Red-legged Frog and California Tiger Salamander and Mitigation Measure 4.6-2b: Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities and Environmentally Sensitive Habitat Areas.</b> The HMMP shall be implemented at all areas where special-status species habitat or sensitive natural communities will be restored, created, or enhanced to mitigate for project impacts either prior to, concurrently with, or following project construction, as specified in the HMMP. The HMMP shall outline measures to be implemented to, depending on the mitigation requirements, restore, improve, or re-establish special-status species habitat, sensitive natural communities, and critical habitat on the site, and shall include the following elements:</p> <ol style="list-style-type: none"> <li>1. Name and contact information for the property owner of the land on which the mitigation will take place</li> <li>2. Identification of the water source for supplemental irrigation</li> <li>3. Identification of depth to groundwater</li> <li>4. Site preparation guidelines to prepare for planting, including coarse and fine grading</li> <li>5. Plant material procurement, including assessment of risk of introduction of plant pathogens through use of nursery-grown container stock vs. collection and propagation of site-specific plant materials, or use of seeds</li> <li>6. Planting plan outlining species selection, planting locations and spacing, for each vegetation type to be restored</li> <li>7. Planting methods, including containers, hydroseed or hydromulch, weed barriers and cages, as needed</li> <li>8. Soil amendment recommendations</li> <li>9. Irrigation plan, with proposed rates (in gallons per minute), schedule (i.e. recurrence interval), and seasonal guidelines for watering</li> <li>10. Site protection plan to prevent unauthorized access, accidental damage and vandalism</li> <li>11. Weeding and other vegetation maintenance tasks and schedule, with specific thresholds for acceptance of invasive species</li> <li>12. Performance standards by which successful completion of mitigation can be assessed in comparison to a relevant baseline or reference site, and by which remedial actions will be triggered; success criteria shall include the minimum performance standards described in <b>Mitigation Measure 4.6-1d: Protective Measures for Western Snowy Plover, Mitigation Measure 4.6-1e: Avoidance and Minimization Measures for Special-status Plants, Mitigation Measure 4.6-1f: Avoidance and Minimization Measures for Smith’s Blue Butterfly, Mitigation Measure 4.6-1h: Avoidance and Minimization Measures for Western Burrowing Owl, Mitigation Measure 4.6-1m: Avoidance and Minimization Measures for Native Stands of Monterey Pine, Mitigation Measure 4.6-1o: Avoidance and Minimization Measures for California Red-legged Frog and California Tiger Salamander and Mitigation Measure 4.6-2b: Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities and Environmentally Sensitive Habitat Areas.</b></li> </ol>	X		X	X	X	X	CalAm shall provide the CPUC with the required HMMP and all approvals thereof issued by the resource and local agencies.	Prior to construction.	Approved HMMP fully implemented and all compensatory mitigation achieved.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
13. Monitoring methods and schedule 14. Reporting requirements and schedule 15. Adaptive management and corrective actions to achieve the established success criteria 16. Educational outreach program to inform operations and maintenance departments of local land management and utility agencies of the mitigation purpose of restored areas to prevent accidental damages 17. Description of any other compensatory mitigation in the form of land purchase, establishment of conservation easements or deed restrictions, contribution of funds in lieu of active restoration, or purchase of mitigation bank credits, or other means by which the mitigation site will be preserved in perpetuity.									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1a: Avoidance and Minimization Measures for California Red-legged Frog and California Tiger Salamander.</b></p> <p>A preconstruction survey for California red-legged frog and California tiger salamander shall be conducted by a qualified biologist in suitable habitat where there is a moderate to high potential for these species to occur prior to vegetation removal or grading, as specified below:</p> <ol style="list-style-type: none"> <li>Prior to conducting the surveys, the qualified biologist shall prepare a relocation plan that describes the appropriate survey and handling methods for California red-legged frog and California tiger salamander, and identifies nearby relocation sites where individuals would be relocated if found during the preconstruction surveys. The relocation plan shall be submitted to USFWS and CDFW for approval prior to the start of construction activities. The animal shall be relocated to a similar type of habitat or better from where it was relocated and shall only be relocated with authorization from USFWS and CDFW, as appropriate.</li> <li>Preconstruction surveys shall be conducted within 5 days prior to, and immediately prior to, vegetation removal, grading, or installation of exclusion fence to identify any California red-legged frog, California tiger salamander, and any small mammal burrows.</li> <li>Small mammal burrows identified during preconstruction surveys shall be surveyed (through hand-excavation, scoping, or other suitable methods to be determined in consultation with USFWS and CDFW) to identify any California red-legged frog or California tiger salamander. Once the burrow is confirmed to be vacant, the burrow shall be collapsed.</li> <li>If California red-legged frog or California tiger salamander are observed within the construction area, a qualified biologist shall relocate the individual according to the relocation plan above and only with authorization from USFWS and CDFW, as appropriate.</li> <li>Exclusion fencing shall be installed around construction areas where there is a moderate to high potential for these species to occur as specified in <b>Mitigation Measure 4.6-1c (General Avoidance and Minimization Measures)</b> and only with authorization from USFWS and CDFW.</li> <li>The qualified biologist shall monitor vegetation removal and grading inside the exclusion fence as specified in <b>Mitigation Measure 4.6-1c (General Avoidance and Minimization Measures)</b>.</li> <li>If take authorization is not obtained from CDFW and USFWS for California tiger salamander, then all small mammal burrows within dispersal distance of a known or potential breeding pond shall be avoided by a minimum buffer of 50 feet.</li> </ol>	X		X	X	X	X	CalAm shall provide the name and qualifications of the biologist(s) to conduct required preconstruction to the CPUC for approval. CalAm shall also provide to the CPUC copies of all frog/salamander surveys and relocation plans, copies of all such surveys and plans, and copies of all related USFWS/CDFW-approved plans and related consultations with and authorizations provided by USFWS/CDFW, and avoidance and protection measures and documentary evidence of compliance therewith.	Prior to, during, and after construction activities.	Surveys demonstrate absence of frogs/salamanders/habitat or if present that all applicable USFWS/CDFW-approved permits, avoidance and minimization measures, mitigation plans and compensatory mitigation are fully implemented/achieved.



**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p>Upon completion of construction activities, CalAm shall restore California tiger salamander and California red-legged frog habitat temporarily impacted during construction. Compensatory mitigation for permanent impacts shall be provided either onsite or offsite at a minimum ratio of 2:1. Compensation for permanent impacts may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. At a minimum, the restoration or compensation sites shall meet the following performance standards by the fifth year following restoration:</p> <p>a. Temporarily impacted areas are returned to pre-project or improved conditions;</p> <p>b. Vegetation cover shall be at least 80 percent of baseline vegetation cover in the impact area; and</p> <p>c. No more cover by invasive plants than in the baseline conditions of the impact area.</p> <p><b>Restoration and mitigation activities shall be described in the Habitat Mitigation and Monitoring Plan prescribed by Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan). Alternatively, compensatory credits may be purchased through an approved mitigation bank, or approved Habitat Conservation Plan.</b></p>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1p: Control Measures for Spread of Invasive Plants.</b></p> <p>Construction best management practices shall be implemented in construction areas within or adjacent to lands with native plant communities that may be susceptible to non-native plant species invasion to prevent the spread of invasive plants, seed, propagules, and pathogens through the following actions:</p> <ol style="list-style-type: none"> <li>1) Avoid driving in or operating equipment in weed-infested areas outside of fenced work areas and restrict travel to established roads.</li> <li>2) Avoid leaving exposed soil or construction materials in areas with the potential for invasive plants (e.g., in staging areas). Non-active stockpiles shall be covered with plastic or a comparable material.</li> <li>3) Clean tools, equipment, and vehicles before transporting materials and before entering and leaving worksites (e.g., wheel washing stations at Project site access points). Inspect vehicles and equipment for weed seeds and/or propagules stuck in tire treads or mud on the vehicle to minimize the risk of carrying them to unaffected areas. Designate areas within active construction sites for cleaning and inspections.</li> <li>4) An environmental inspector, under direction of the Lead Biologist or appointed qualified biologist (see <b>Mitigation Measure 4.6-1a</b>) shall inspect vehicles and equipment prior to project initiation at applicable work areas (listed above) for weed seeds and plant fragments that could colonize within the site or be transported to other sites. At project initiation, all construction vehicles must be cleaned to remove soil and plant fragments at designated locations, and vehicles or equipment that are not clean shall be rejected until clear of weed seed and plant fragments. Wheel washing stations or other methods to remove and contain seeds or other plant fragments from vehicles, equipment, boots, and tools shall be established in designated areas.</li> <li>5) All equipment and tools involved in soil disturbance at applicable work areas shall be disinfected using a 10% bleach or 70% isopropyl alcohol solution prior to initial use or prior to returning to applicable work areas if used on another project site.</li> <li>6) Only certified, weed-free, plastic-free imported erosion control materials (or rice straw in upland areas) shall be used for the project.</li> <li>7) Within U.S. Army-owned land, control measures for invasive species also shall conform to guidelines in the Integrated Natural Resource Management Plan (INRMP) Presidio of Monterey and Ord Military Community (e.g., Section 9.2.4, Undesirable Plant Pests).</li> </ol> <p>This measure also applies to periodic maintenance of the subsurface slant wells.</p>	X		X	X	X	X	CalAm's environmental monitor shall provide monthly documentation demonstrating oversight and implementation of best management practices for the prevention of spreading of invasive plants.	During construction activities and subsequent maintenance activities at the slant well sites.	Compliance with and implementation of all applicable construction best management practices and documentation that doing so prevented spreading of invasive plants during construction and maintenance activities.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measure 4.6-1q: Frac-out Contingency Plan.</b></p> <p>CalAm shall retain a licensed geotechnical engineer to develop a Frac-out Contingency Plan (Plan). CalAm will submit the plan to the appropriate resource agencies (CDFW, CCRWQCB, USACE, USFWS, NMFS, and local agencies with land use jurisdiction) for approval prior to the start of construction of any pipeline that will use HDD installation. The Plan shall be implemented at all areas where HDD installation under a waterway would occur to avoid, minimize, or mitigate for project impacts either prior to, concurrently with, or following HDD installation, as specified in the Plan. The plan shall include, at a minimum:</p> <ol style="list-style-type: none"> <li>Measures describing training of construction personnel about monitoring procedures, equipment, materials and procedures in place for the prevention, containment, clean-up (such as creating a containment area and using a pump, using a vacuum truck, etc.), and disposal of released bentonite slurry, and agency notification protocols;</li> <li>Methods for preventing frac-out including maintaining pressure in the borehole to avoid exceeding the strength of the overlying soil.</li> <li>Methods for detecting an accidental release of bentonite slurry that include: (a) monitoring by a minimum of one biological monitor throughout drilling operations to ensure swift response if a frac-out occurs; (b) continuous monitoring of drilling pressures to ensure they do not exceed those needed to penetrate the formation; (c) continuous monitoring of slurry returns at the exit and entry pits to determine if slurry circulation has been lost; and (d) continuous monitoring by spotters to follow the progress of the drill bit during the pilot hole operation, and reaming and pull back operations.</li> <li>Protocols CalAm and/or its contractors will follow if there is a loss of circulation or other indicator of a release of slurry.</li> <li>Cleanup and disposal procedures and equipment CalAm and/or its contractors will use if a frac-out occurs.</li> <li>If a frac-out occurs, CalAm and/or its contractors shall immediately halt work, implement the measures outlined in Item 5 of the Plan to contain, clean-up, and dispose of the bentonite slurry, and notify and consult with the staffs of the agencies listed above before HDD activities can begin again.</li> </ol> <p>CalAm shall implement this plan to ensure that measures are implemented to prevent frac-out and if a frac-out occurs, then CalAm and/or its contractor shall implement measures to contain, clean-up, and dispose of the bentonite slurry.</p>						X	CalAm shall provide to CPUC prior to construction a copy of the required Frac-out Contingency Plan and all approvals thereof issued by the appropriate resource and local agencies. A licensed geotechnical engineer hired by CalAm will prepare the Plan for submission and approval by the resources agencies. CalAm will implement the plan through contract specifications with the HDD contractors. Reporting of implementation and any frac-out incidents will be reported to the resources agencies.	Prior to and during construction.	Compliance with all components of the approved Frac-out Contingency Plan and documentation that doing so avoided injury to or loss of special status plants.
<p><b>Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly, indirectly or through habitat modification, during construction.</b></p> <p><b>Mitigation Measures 4.12-1b and 4.14-2</b></p>	X		X	X	X	X	See below in Mitigation Measures 4.12-1b and 4.14-2		
<p><b>Impact 4.6-2: Result in substantial adverse effects on riparian habitat, critical habitat, or other sensitive natural communities during construction.</b></p> <p><b>Mitigation Measures 4.6-1a, 4.6-1b, 4.6-1c, 4.6-1d, 4.6-1n, 4.6-1o, 4.6-1p, and 4.6-1q</b></p>	X		X	X	X		See above in Mitigation Measures 4.6-1a, 4.6-1b, 4.6-1c, 4.6-1d, 4.6-1n, 4.6-1o, 4.6-1p, and 4.6-1q		
<p><b>Impact 4.6-2: Result in substantial adverse effects on riparian habitat, critical habitat, or other sensitive natural communities during construction.</b></p> <p><b>Mitigation Measure 4.6-2a: Consultation with Local Agencies and the California Coastal Commission regarding Environmentally Sensitive Habitat Areas.</b></p> <p>Some parts of the project area occur within the Coastal Zone and development within the Coastal Zone would require a Coastal Development Permit.</p>	X		X	X		X	CalAm shall provide the CPUC with copies of all approved Coastal Development Permits issued by the CCC and applicable local agencies prior to initiation of ground disturbing activities.	Prior to construction.	Compliance with all components of all Coastal Development Permits approved for the MPWSP for protection of ESHA.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
Prior to the initiation of ground-disturbing activities CalAm shall consult with the CCC or local jurisdiction and obtain the necessary permit(s) in order to proceed with the MPWSP. The CCC or local agency would authorize the project if it conforms to ESHA policies or other policies of the Coastal Act.									
<p><b>Impact 4.6-2: Result in substantial adverse effects on riparian habitat, critical habitat, or other sensitive natural communities during construction.</b></p> <p><b>Mitigation Measure 4.6-2b: Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities and Environmentally Sensitive Habitat Areas.</b></p> <p>CalAm and/or its construction contractor(s) shall implement the following avoidance, minimization, and compensation measures for sensitive natural communities, the special-status species that utilize these sensitive communities, environmentally sensitive habitat areas (ESHA) as defined by the California Coastal Commission (CCC) or in a local coastal plan (LCP), and primary habitat as defined in the City of Marina's Local Coastal Land Use Plan (LCLUP). Compensatory mitigation for permanent loss from periodic maintenance of the subsurface slant wells shall only be applied once and would not be applied for each five-year maintenance event.</p> <p>a) Project facilities shall be sited and designed to avoid disturbance of central maritime chaparral, central dune scrub, coast live oak woodland, and riparian woodland and scrub, any areas defined as ESHA by the CCC or in a LCP, primary habitat as defined in the LCLUP, any sensitive communities defined by local jurisdictions, and any other sensitive natural communities, including critical habitat, identified within the project area.</p> <p>b) Where direct impacts on sensitive natural communities, ESHA, primary habitat, or critical habitat cannot feasibly be avoided, CalAm shall implement the following measures:</p> <p>i. Any temporarily impacted sensitive natural communities, ESHA, primary habitat, and critical habitat, shall be restored to previous conditions or better at the end of construction. Compensatory mitigation for permanent impacts on sensitive natural communities shall occur at a ratio of 2:1 or greater. Compensation for loss of sensitive natural communities may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. At a minimum the restoration or compensation sites shall meet the following performance standards by the fifth year following restoration:</p> <p>a. Temporarily impacted areas are returned to pre-project conditions or greater</p> <p>b. Native vegetation cover shall be at least 70 percent of baseline/impact area native vegetation cover</p> <p>c. No more cover by invasives than the baseline/impact area</p> <p>Restoration and mitigation activities shall be described in the Habitat Mitigation and Monitoring Plan prescribed by Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan).</p> <p>Alternatively, credits purchased through an approved mitigation bank, or approved Habitat Conservation Plan.</p> <p>ii. Topsoil shall be salvaged during grading and earthmoving activities, stockpiled separately from subsoil, and protected from erosion (e.g., covered or watered). Composting additives shall be used to amend the soil, if needed, and compacted topsoil shall be properly prepared prior to reuse for post-construction restoration of temporarily disturbed areas. A minimum of 12 inches of topsoil shall be salvaged (or if there is less than 12 inches of topsoil initially, as much as is available practicable).</p> <p>iii. For HMP sensitive natural communities on former Fort Ord lands, plants shall be salvaged, under the direction of a qualified biologist, as necessary per the requirements of the HMP, and in accordance with any requirements from USFWS and CDFW.</p>	X		X	X	X	X	<p>CalAm shall provide and obtain approval from CPUC of final design submittals demonstrating avoidance of sensitive natural communities and species that utilize them, ESHA and primary/secondary habitat or provide the CPUC with copies of all approved Coastal Development Permits issued by the CCC and applicable local agencies prior to initiation of ground disturbing activities. CalAm's environmental monitor shall provide CPUC with monthly reports demonstrating oversight and successful implementation of the required avoidance, minimization and compensation measures to ensure construction is limited to the design footprint and avoids sensitive communities/species/habitat or that compensatory mitigation was provided.</p>	<p>Prior to and during construction.</p>	<p>Compliance with all components of all Coastal Development Permits approved for the MPWSP and their conditions for the protection for sensitive natural communities, the special-status species that utilize these sensitive communities, ESHA as defined by the CCC or in a LCP, and primary habitat.</p>

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: CalAm Reports On, and the CPUC Monitors all Mitigation Measures	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p>c) Any areas used for staging, laydown, material storage, equipment storage, job trailers, employee parking, or other project-related support activities that do not need to be located adjacent to the active construction area shall be located away from jurisdictional areas, sensitive communities, and shall be protected from stormwater runoff using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers.</p> <p>d) All potential contaminants shall be stored on impervious surfaces, plastic ground covers, or in secondary containment to prevent any spills or leakage from contaminating the ground, and shall be located at least 100 feet from adjacent habitat, unless required for construction activities to be located adjacent to the active construction area.</p> <p>e) Any spillage of pollutants or construction material shall be contained immediately in accordance with the project SWPPP. The contaminated area shall be cleaned and any contaminated materials properly disposed of. The Lead Biologist shall be notified of all spills.</p> <p>Further, CalAm and/or its construction contractor(s) shall implement the following avoidance, minimization, and compensation measures for any areas that are identified as secondary habitat as defined in the City of Marina's LCLUP (and not within ESHA as defined by the CCC) through the coastal permitting process:</p> <p>a) Development shall be designed to prevent significant adverse impacts on primary habitat areas. Adverse impacts that shall be avoided may include indirect impacts such as operational noise impacts on wildlife, introduction of the spread of invasive plant and wildlife species, increased erosion, introduction of trash that would invite predators, increased human disturbance, and decreased water quality.</p> <p>b) All temporarily impacted areas shall be restored to pre-construction conditions or better at the end of construction. Compensatory mitigation for permanent impacts on sensitive natural communities shall occur at a ratio of 1:1 or greater. Compensation for loss of sensitive natural communities may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. At a minimum the restoration or compensation sites shall meet the following performance standards by the fifth year following restoration:</p> <p>i. Temporarily impacted areas are returned to pre-project conditions or greater</p> <p>ii. Native vegetation cover shall be at least 70 percent of baseline/impact area native vegetation cover</p> <p>iii. No more cover by invasives than the baseline/impact area</p> <p>Restoration and mitigation activities shall be described in the Habitat Mitigation and Monitoring Plan prescribed by Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan).</p> <p>Alternatively, credits purchased through an approved mitigation bank, or approved Habitat Conservation Plan.</p>									
<p><b>Impact 4.6-3: Result in substantial adverse effects on federal wetlands, federal other waters, and/or waters of the state during construction.</b></p> <p><b>Mitigation Measures 4.6-1a, 4.6-1b, 4.6-1c, and 4.6-1q</b></p>	X		X	X	X	X	See above in Mitigation Measures 4.6-1a, 4.6-1b, 4.6-1c, and 4.6-1q		
<p><b>Impact 4.6-3: Result in substantial adverse effects on federal wetlands, federal other waters, and/or waters of the state during construction.</b></p> <p><b>Mitigation Measure 4.6-3: Avoid, Minimize, and or Mitigate Impacts to Wetlands.</b></p> <p>1. A jurisdictional wetland delineation shall be conducted to determine the extent of waters of the U.S. and waters of the state within the project component footprints and anticipated construction disturbance area.</p> <p>2. The proposed project shall be designed to avoid and/or minimize direct impacts on wetlands and/or waters under the jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, and/or the California Coastal Commission to the extent feasible. Horizontal Directional Drilling or other trenchless or above water methods will be used at all pipeline crossings of wetlands and other waters of the U.S. and of the state except some small order seasonal or ephemeral drainages which do not support riparian</p>	X		X	X	X	X	CalAm shall provide a copy of the required jurisdictional wetland delineation and all concurrences, approvals and/or related permits issued by the U.S. Army Corps of Engineers, RWQCB, CDFW, and/or the California Coastal Commission. CalAm's environmental monitor shall provide CPUC with monthly reports demonstrating avoidance and/or minimization of impacts on wetlands and/or waters of the U.S. or that compensatory mitigation was provided.	Prior to, during, and after construction.	Documented avoidance, minimization, and/or mitigation of impacts on wetlands consistent with the required jurisdictional wetland delineation and all concurrences, approvals and/or related permits issued by the U.S. Army Corps of Engineers, RWQCB, CDFW, and/or the California Coastal Commission

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p>woodland, riparian scrub, marsh or other wetland vegetation, and which would be crossed during the dry season in the absence of flow or standing water.</p> <p>3. Where disturbance to jurisdictional waters cannot be avoided, any temporarily impacted jurisdictional water shall be restored to pre-construction conditions or better at the end of construction. Compensation for permanent impacts shall be provided at a 2:1 or greater ratio. Compensation for loss of jurisdictional waters may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. At a minimum the restoration or compensation sites shall meet the following performance standards by the fifth year following restoration:</p> <p>a. Temporarily impacted areas are returned to pre-project conditions or greater</p> <p>b. Wetlands restored or constructed as federal wetlands meet the federal criteria for jurisdictional wetlands and wetlands restored or constructed as state wetlands meet the state criteria for jurisdictional wetlands</p> <p>c. No more cover by invasives than the baseline/impact area</p> <p>Compensation shall be detailed on a project-specific basis and shall include development of a Wetland Mitigation and Monitoring Plan (WMMP), which shall be developed prior to the start of construction and in coordination with permit applications and/or conditions. At a minimum, the WMMP shall include:</p> <p>a. Name and contact information for the property owner of the land on which the mitigation will take place;</p> <p>b. Identification of the source for supplemental irrigation;</p> <p>c. Identification of depth to groundwater;</p> <p>d. Baseline information, including a summary of the findings in any other recent wetland delineations applicable to the project disturbance area;</p> <p>e. Anticipated habitat enhancements to be achieved through compensatory actions;</p> <p>f. Monitoring methods and schedule;</p> <p>g. Performance and success criteria for wetland creation and/or enhancement, with success criteria in tabular form.</p> <p>h. Roles and responsibilities for mitigation funding, implementation, maintenance, monitoring, and reporting.</p> <p>i. Identification of the mechanism that will preserve the mitigation site in perpetuity, if necessary.</p> <p>Alternatively, offsite mitigation credits may be purchased at an approved mitigation bank; if no banks are available, then alternative mitigation may be achieved through payment of in-lieu fees.</p>									
<p><b>Impact 4.6-4: Be inconsistent with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</b></p> <p><b>Mitigation Measure 4.6-1d, 4.6-1e, 4.6-1f, 4.6-1n, and 4.6-2b</b></p>	X		X	X	X	X	See above in Mitigation Measures 4.6-1d, 4.6-1e, 4.6-1f, 4.6-1n, and 4.6-2b		

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<p><b>Impact 4.6-4: Be inconsistent with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</b></p> <p><b>Mitigation Measure 4.6-4: Compliance with Local Tree Ordinances.</b></p> <ol style="list-style-type: none"> <li>The project applicant shall perform a comprehensive survey within the project footprint to identify, measure, and map trees subject to local tree removal ordinances (as specified in Table 4.6-10) at least 30 days prior to start of planned ground disturbance or tree removal.</li> <li>Any trees that are subject to local tree removal ordinances shall be avoided to the extent practicable.</li> <li>If tree removal cannot be avoided by project construction, then the applicant shall comply with the applicable local tree policies or ordinances, obtain appropriate tree removal permits from applicable local agencies, and comply with those permits.</li> <li>Tree removal, preservation, or mitigation on Army property would be done in accordance with the Integrated Natural Resource Management Plan Presidio of Monterey and Ord Military Community (November, 2008).</li> </ol>	X		X	X	X	X	CalAm shall provide the name and qualifications of the biologist(s) to conduct the comprehensive tree survey to the CPUC for approval. CalAm shall also provide to the CPUC a copy of the survey and related maps and copies of all required tree removal permits issued by applicable local agencies prior to construction.	Prior to and during construction.	Final design plans demonstrate that all trees subject to local tree removal ordinances will be avoided and if not compliance with all tree removal permits and related conditions issued by applicable local agencies shall be implemented.
<p><b>Impact 4.6-5: Introduce or spread an invasive non-native species during construction.</b></p> <p><b>Mitigation Measures 4.6-1a and 4.6-1p</b></p>	X		X	X	X	X	See above in Mitigation Measures 4.6-1a and 4.6-1p		
<p><b>Impact 4.6-6: Result in substantial adverse effects on candidate, sensitive, or special-status species during project operations.</b></p> <p><b>Mitigation Measures 4.6-1a, 4.6-1b, 4.6-1c, 4.6-1d, 4.6-1e, 4.6-1f, 4.6-1g, 4.6-1i, 4.6-1n, 4.6-1p, 4.12-1b, 4.12-5, and 4.14-2</b></p>	X		X	X	X	X	See above in Mitigation Measures 4.6-1a, 4.6-1b, 4.6-1c, 4.6-1d, 4.6-1e, 4.6-1f, 4.6-1g, 4.6-1i, 4.6-1n, 4.6-1p, 4.12-1b, 4.12-5, and 4.14-2		
<p><b>Impact 4.6-6: Result in substantial adverse effects on candidate, sensitive, or special-status species during project operations.</b></p> <p><b>Mitigation Measure 4.6-6: Installation and Monitoring of Bird Deterrents at the Brine Storage Basin.</b></p> <p>Bird deterrents (such as reflective flagging, whistles, or a falconer) shall be utilized at the Brine Storage Basin. The type of bird deterrent shall be determined by the lead biologist and shall be modified if, through monitoring (as described below), the bird deterrents are either not sufficient at deterring birds from the Brine Storage Basin or pose a risk to wildlife.</p> <p>Monitoring of the Brine Storage Basin shall include the following:</p> <ul style="list-style-type: none"> <li><b>Daily Monitoring:</b> CalAm operational staff will monitor the brine pond on a daily basis as part of their regular routine. If staff see regular use of the pond by birds, any dead animals, or any unusual siting, USFWS will be notified within one working day.</li> <li><b>Monthly Monitoring:</b> A qualified biologist and/or qualified biological monitor shall regularly survey the Brine Storage Basin at least once per month starting with the first month of operation of the Brine Storage Basin. The purpose of the surveys shall be to determine if the bird deterrents are effective in excluding birds and to assess whether the deterrents serve as a hazard to birds or wildlife. The monthly surveys shall be conducted in one day for a minimum of two hours following sunrise (i.e., dawn), a minimum of one hour mid-day (i.e., 1100 to 1300), and a minimum of two hours preceding sunset (i.e., dusk) in order to provide an accurate assessment of bird and wildlife use of the ponds during all seasons. Operations staff at the MPWSP Desalination Plant shall also report finding any dead birds or other wildlife at the Brine Storage Basin to the Lead Biologist within one day of the detection of the carcass. The Lead Biologists shall report any bird or other wildlife deaths or entanglements within two days of the discovery to CalAm, CDFW, and USFWS.</li> </ul>			X				CalAm shall provide to the CPUC information regarding all bird deterrents utilized, copies of all staff monitoring reports, biologist/biological monitor survey reports and any related correspondence to or additional bird deterrent conditions required or authorizations provided by USFWS/CDFW. A Lead Biologist hired by CalAm will oversee the installation and monitoring of bird deterrents at the Brine Storage Basin. The Lead Biologist will report deaths or entanglements of any birds or wildlife to CPUC, CalAm, CDFW, and USFWS. The Lead Biologist will review deterrent monitoring reports and modify the bird deterrent program through adaptive management measures.	During the operation of the Brine Storage Basin.	Successful deterrent of birds documented in monitoring reports.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.6: Terrestrial Biological Resources (cont.)</b>									
<ul style="list-style-type: none"> <li><b>Quarterly Monitoring:</b> If after 12 consecutive monthly site visits (described above) no bird or wildlife deaths are detected at the Brine Storage Basin by or reported to the Lead Biologist, monitoring can be reduced to quarterly visits.</li> <li><b>Biannual Monitoring:</b> If after 12 consecutive quarterly site visits (described above) no bird or wildlife deaths are detected by or reported to the Lead Biologist, future surveys may be reduced to two surveys per year, during the spring nesting season and during fall migration.</li> <li><b>Modification of Monitoring Program:</b> The Lead Biologist shall modify the monitoring program based on information acquired during monitoring if any changes are needed, and determine adaptive management measures to remedy any problems that are detected during monitoring or modifications if bird impacts are observed.</li> </ul>									
<p><b>Impact 4.6-7: Result in substantial adverse effects on riparian habitat, critical habitat, or other sensitive natural communities during project operations.</b></p> <p><b>Mitigation Measures 4.6-1a, 4.6-1b, 4.6-1c, 4.6-1d, 4.6-1n, 4.6-1p, 4.6-2a, and 4.6-2b</b></p>	X		X	X	X	X	See above in Mitigation Measures 4.6-1a, 4.6-1b, 4.6-1c, 4.6-1d, 4.6-1n, 4.6-1p, 4.6-2a, and 4.6-2b		
<p><b>Impact 4.6-8: Result in substantial adverse effects on federal wetlands, federal other waters, and waters of the state during project operations.</b></p> <p><b>Mitigation Measures 4.6-1a, 4.6-1b, and 4.6-1c</b></p>	X		X	X	X	X	See above in Mitigation Measures 4.6-1a, 4.6-1b, and 4.6-1c		
<p><b>Impact 4.6-9: Introduce or spread an invasive non-native species during project operations.</b></p> <p><b>Mitigation Measures 4.6-1a and 4.6-1p</b></p>	X		X	X	X	X	See above in Mitigation Measures 4.6-1a and 4.6-1p		
<p><b>Impact 4.6-10: Be inconsistent with the provisions of an adopted Habitat Conservation Plan, natural community conservation plan or other approved local, regional, or state habitat conservation plan.</b></p> <p><b>Mitigation Measures 4.6-1a, 4.6-1n, and 4.6-2b</b></p>	X		X	X	X	X	See above in Mitigation Measures 4.6-1a, 4.6-1n, and 4.6-2b		
<p><b>Impact 4.6-C: Cumulative impacts related to terrestrial biological resources.</b></p> <p><b>Mitigation Measures 4.6-1a, 4.6-1b, 4.6-1c, 4.6-1d, 4.6-1e, 4.6-1f, 4.6-1g, 4.6-1h, 4.6-1i, 4.6-1j, 4.6-1k, 4.6-1l, 4.6-1m, 4.6-1n, 4.6-1o, 4.6-1p, 4.6-2a, 4.6-2b, 4.6-3, 4.6-4, 4.6-6, 4.12-1b, 4.12-5, and 4.14-2</b></p>	X		X	X	X	X	See above in Mitigation Measures 4.6-1a, 4.6-1b, 4.6-1c, 4.6-1d, 4.6-1e, 4.6-1f, 4.6-1g, 4.6-1h, 4.6-1i, 4.6-1j, 4.6-1k, 4.6-1l, 4.6-1m, 4.6-1n, 4.6-1o, 4.6-1p, 4.6-2a, 4.6-2b, 4.6-3, 4.6-4, and 4.6-6, and below in Mitigation Measures 4.12-1b, 4.12-5, and 4.14-2		
<b>Section 4.7: Hazards and Hazardous Materials</b>									
<p><b>Impact 4.7-2: Encountering hazardous materials from other hazardous materials release sites during construction.</b></p> <p><b>Mitigation Measure 4.7-2a: Health and Safety Plan.</b></p> <p>The construction contractor(s) shall prepare and implement a site-specific Health and Safety Plan as required by and in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. This plan shall be submitted to the California Public Utilities Commission for review prior to commencement of construction. The Health and Safety Plan shall include, but is not limited to, the following elements:</p> <ul style="list-style-type: none"> <li>Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site health and safety plan;</li> <li>A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals;</li> </ul>	X		X	X	X	X	Through contract specifications, CalAm's contractors will prepare Health and Safety Plans, as reviewed and approved by CPUC prior to construction.	Prior to and during construction.	Compliance with all components of the approved Health and Safety Plan.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: CalAm Reports On, and the CPUC Monitors all Mitigation Measures	Implementation Schedule	
<b>Section 4.7: Hazards and Hazardous Materials (cont.)</b>									
<ul style="list-style-type: none"> <li>Specified personal protective equipment and decontamination procedures, if needed;</li> <li>Emergency procedures, including route to the nearest hospital; and</li> <li>Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered. These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release, notifying Monterey County Department of Environmental Health, and retaining a qualified environmental firm to perform sampling and remediation.</li> </ul>									
<p><b>Impact 4.7-2: Encountering hazardous materials from other hazardous materials release sites during construction.</b></p> <p><b>Mitigation Measure 4.7-2b: Soil and Groundwater Management Plan.</b></p> <p>In support of the Health and Safety Plan described above, CalAm or its contractor shall develop and implement a Soil and Groundwater Management Plan that includes a materials disposal plan specifying how the construction contractor will remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The plan must identify protocols for soil testing and disposal, identify the approved disposal site, and include written documentation that the disposal site will accept the waste. Contract specifications shall mandate full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in excavated soil or dewatering effluent.</p> <p>As part of the Soil and Groundwater Management Plan, CalAm or its contractor shall develop a groundwater dewatering control and disposal plan specifying how contaminated groundwater (dewatering effluent), if encountered, will be handled and disposed of in a safe, appropriate and lawful manner. The plan must identify the locations at which groundwater dewatering is likely to be required, the method to analyze groundwater for hazardous materials, and the appropriate treatment and/or disposal methods. If the dewatering effluent contains contaminants that exceed the requirements of the <i>General WDRs for Discharges with a Low Threat to Water Quality</i> (Order No. R3-2011-0223, NPDES Permit No. CAG993001), the construction contractor shall contain the dewatering effluent in a portable holding tank for appropriate offsite disposal or discharge (see Section 4.5.3 in Section 4.3, Surface Water Hydrology and Water Quality, for more information regarding this NPDES permit). The contractor can either dispose of the contaminated effluent at a permitted waste management facility or discharge the effluent, under permit, to a publicly owned treatment works such as the M1W Regional Wastewater Treatment Plant. This plan shall be submitted to the California Public Utilities Commission and Monterey Bay National Marine Sanctuary for review and approval prior to commencement of construction.</p>	X		X	X	X	X	CalAm, or its contractor through contract specifications, shall prepare and provide a Soil and Groundwater Management Plan for review and approval by CPUC and MBNMS prior to commencement of construction.	Prior to and during construction.	Compliance with all components of the approved Soil and Groundwater Management Plan.
<p><b>Impact 4.7-C: Cumulative impacts related to hazards and hazardous materials.</b></p> <p><b>Mitigation Measures 4.7-2a and 4.7-2b</b></p>	X		X	X	X	X	See above in Mitigation Measures 4.7-1a and 4.7-1b		
<b>Section 4.8: Land Use, Land Use Planning, and Recreation</b>									
<p><b>Impact 4.8-2: Disrupt or preclude public access to or along the coast during construction.</b></p> <p><b>Mitigation Measure 4.9-1</b></p>	X		X			X	See below in Mitigation Measure 4.9-1		
<p><b>Impact 4.8-C: Cumulative impacts related to land use and recreation.</b></p> <p><b>Mitigation Measure 4.9-1</b></p>							See below in Mitigation Measure 4.9-1		
<b>Section 4.9: Traffic and Transportation</b>									
<p><b>Impact 4.9-1: Temporary traffic increases on regional and local roadways due to construction-related vehicle trips.</b></p>	X		X	X	X	X	CalAm, or its contractor through contract specifications, shall prepare the required	Prior to and during construction.	Compliance with all components of the CPUC-



**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<p><b>Mitigation Measure 4.9-1: Traffic Control and Safety Assurance Plan.</b></p> <p>CalAm and/or the construction contractor(s) shall obtain any necessary road encroachment permits (e.g., from Caltrans and/or the U.S. Army) prior to constructing each project component and shall comply with the conditions of approval attached to all project permits and approvals. As part of the road encroachment permit process, a qualified traffic engineer shall prepare a traffic control and safety assurance plan in accordance with professional engineering standards and submit the plan to the agencies with jurisdiction over the affected roads and recreational trails, as well as to the California Public Utilities Commission, for review and approval. For all project construction activities that could affect the public right-of-way (e.g., roadways, sidewalks, and walkways), the plan shall include measures that would provide for continuity of vehicular, pedestrian, and bicyclist traffic; reduce the potential for traffic accidents; and ensure worker safety in construction zones. Where project construction activities could disrupt mobility and access for bicyclists and pedestrians, the plan shall include measures to ensure safe and convenient access, including recreation and coastal, would be maintained.</p> <p>The traffic control and safety assurance plan shall be developed on the basis of detailed design plans for the approved project. The plan shall include, but not necessarily be limited to, the elements listed below:</p> <ul style="list-style-type: none"> <li>• Develop circulation and detour plans to minimize impacts on local streets. Haul routes that minimize truck traffic on local roadways and residential streets shall be used. As necessary, signage and/or flaggers shall be used to guide vehicles through the construction work areas.</li> <li>• Control and monitor construction vehicle movements by enforcing standard construction specifications through periodic onsite inspections.</li> <li>• Install traffic control devices where traffic conditions warrant, as specified in the applicable jurisdiction's standards (e.g., the <i>California Manual of Uniform Traffic Controls for Construction and Maintenance Work Zones</i>).</li> <li>• Schedule truck trips outside of peak morning and evening commute hours to minimize adverse impacts on traffic flow (i.e., if agencies with jurisdiction over the affected roads identify highly congested roadway segments during their review of the encroachment permit applications).</li> <li>• Post detour signs along affected roadways to notify motorists of alternative routes.</li> <li>• Perform construction that crosses on-street and off-street bikeways, sidewalks, and other walkways in a manner that allows for safe access for bicyclists and pedestrians. Alternatively, provide safe detours to reroute affected bicycle/pedestrian traffic.</li> <li>• At least two weeks prior to construction, post signage along all potentially affected recreational trails and coastal access point; Class I, II, and III bicycle routes; and pedestrian pathways, including the Monterey Peninsula Recreational Trail, to warn bicyclists and pedestrians of construction activities. The signs shall include information regarding the nature of construction activities, duration, and detour routes. Signage shall be composed of or encased in weatherproof material and posted in conspicuous locations, including on park message boards, and existing wayfinding signage and kiosks, for the duration of the closure period. At the end of the closure period, CalAm or its contractors shall retrieve all notice materials.</li> <li>• CalAm and its contractors shall schedule construction activities to minimize impacts during heavy recreational use periods (e.g., weekends and holidays).</li> </ul>							<p>Traffic Control and Safety Assurance Plan based on final detailed project design plans and provide it to the CPUC for review and approval, together with copies of all road encroachment permits approved/issued by Caltrans, the U.S. Army and/or local agencies, prior to construction.</p>		<p>approved Traffic Control and Safety Assurance Plan and all road encroachment permits (and conditions thereto) required and approved/issued for the MPWSP.</p>

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.9: Traffic and Transportation (cont.)</b>									
<ul style="list-style-type: none"> <li>Implement a public information program to notify motorists, bicyclists, nearby residents, and adjacent businesses of the impending construction activities (e.g., media coverage, email notices, websites, etc.). Notices of the location(s) and timing of road closures shall be published in local newspapers and on available websites to allow motorists to select alternative routes. This provision shall be implemented in conjunction with <b>Mitigation Measure 4.12-1a (Neighborhood Notice)</b>.</li> <li>Consult with non-jurisdictional parties (e.g., CEMEX), as appropriate, regarding strategies for reducing increased traffic on roads that would provide access to construction work areas.</li> <li>Store all equipment and materials in designated contractor staging areas.</li> <li>Maintain alternate one-way traffic flow past the construction zone where possible.</li> <li>Install detour signs to direct traffic to alternative routes around the closed road segment if alternate one-way traffic flow cannot be maintained past the construction zone.</li> <li>Limit lane closures during peak hours.</li> <li>Restore roads and streets to normal operation by covering trenches with steel plates outside of normal work hours or when work is not in progress.</li> <li>Comply with roadside safety protocols to reduce the risk of accidents. Provide "Road Work Ahead" warning signs and speed control (including signs informing drivers of state-legislated double fines for speed infractions in a construction zone) to achieve required speed reductions for safe traffic flow through the work zone. Train construction personnel to apply appropriate safety measures as described in the traffic control and safety assurance plan.</li> <li>Maintain access for emergency vehicles at all times. Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, transit stations, hospitals, and schools. Provide advance notification to local police, fire, and emergency service providers of the timing, location, and duration of construction activities that could affect the movement of emergency vehicles on area roadways.</li> <li>Develop a school traffic and pedestrian safety plan to minimize adverse impacts associated with truck trips and lane closures (e.g., in the vicinity of the Marshall Elementary School east of the General Jim Moore Boulevard / Normandy Road intersection).</li> <li>Avoid truck trips through designated school zones during the school drop-off and pickup hours to the extent feasible.</li> <li>Provide flaggers in school areas at street crossings to manage traffic flow and maintain traffic safety during the school drop-off and pickup hours on days when pipeline installation would occur in designated school zones.</li> <li>Coordinate with Monterey-Salinas Transit so the transit provider can temporarily relocate bus routes or bus stops in work zones as deemed necessary.</li> </ul>									
<b>Impact 4.9-2: Temporary reduction in roadway capacities and increased traffic delays during construction.</b>	X		X	X	X	X		See above in Mitigation Measure 4.9-1	
<b>Mitigation Measure 4.9-1</b>									
<b>Impact 4.9-3: Increased traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways during construction.</b>	X		X	X	X	X		See above in Mitigation Measure 4.9-1	
<b>Mitigation Measure 4.9-1</b>									
<b>Impact 4.9-4: Impaired emergency access during construction.</b>	X		X	X	X	X		See above in Mitigation Measure 4.9-1	
<b>Mitigation Measure 4.9-1</b>									

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.9: Traffic and Transportation (cont.)</b>									
<b>Impact 4.9-5: Temporary disruptions to public transportation, bicycle, and pedestrian facilities during construction.</b> <b>Mitigation Measure 4.9-1</b>	X		X	X	X	X	See above in Mitigation Measure 4.9-1		
<b>Impact 4.9-6: Increased wear-and-tear on the designated haul routes used by construction vehicles.</b> <b>Mitigation Measure 4.9-6: Roadway Rehabilitation Program.</b> Prior to commencing project construction, CalAm and the affected jurisdiction(s) shall enter into an agreement detailing the preconstruction condition of all major project-related construction access and haul routes, in addition to any appropriate post-construction roadway rehabilitation requirements (e.g., who would make the roadway repair, and by when). Temporary detour routes may also be included in the inventory of preconstruction road conditions, if appropriate. The construction routes identified in the rehabilitation program must be consistent with those identified in the construction traffic control and safety assurance plan developed under Mitigation Measure 4.9-1. Roads damaged by project-related construction vehicles shall be repaired to a structural condition equal to that which existed prior to construction activities. CalAm shall be responsible for paying for all repairs needed to fix the damage caused by project-related construction vehicles.	X		X	X	X	X	CalAm shall provide a fully-executed copy of the agreement it enters into with affected jurisdictions to the CPUC, to document pre- and post-construction road conditions and identify road segments for post-construction rehabilitation measures. CPUC and affected jurisdictions will monitor the documentation procedures and rehabilitation measures.	Prior to and after construction.	Rehabilitation of roads and road segments affected by project construction to pre-construction or better conditions, as identified by required agreement between CalAm and affected jurisdictions.
<b>Impact 4.9-7: Parking interference during construction.</b> <b>Mitigation Measure 4.9-7: Construction Parking Requirements.</b> Prior to commencing project construction, the construction contractor(s) shall coordinate with the affected jurisdictions (i.e., Monterey County, Cal State Monterey, and the cities of Marina and Seaside), and affected parties (i.e., the Walmart Superstore at 150 Beach Road), to design the staging areas to avoid or minimize parking impacts in the publicly used parking lots.	X		X	X	X	X	CalAm shall provide the CPUC with copies of its construction contracts and related documentation demonstrating that CalAm's contractor(s) satisfactorily coordinated with affected jurisdictions and parties to avoid or minimize construction staging area parking impacts in public parking lots. CPUC and local jurisdictions will monitor the parking coordination.	Prior to and during construction.	Coordination of contractors with affected jurisdictions and parties that avoids or minimizes parking impacts in public parking lots.
<b>Impact 4.9-C: Cumulative impacts related to traffic and transportation.</b> <b>Mitigation Measures 4.9-1, 4.9-6, and 4.9-7</b>	X		X	X	X	X	See above in Mitigation Measures 4.9-1, 4.9-6, and 4.9-7		
<b>Impact 4.9-C: Cumulative impacts related to traffic and transportation.</b> <b>Mitigation Measure 4.9-C: Construction Traffic Coordination Plan.</b> CalAm shall coordinate with the appropriate planning agency within each affected jurisdiction to develop and implement a Construction Traffic Coordination Plan. The purpose of the plan shall be to lessen the cumulative effects of MPWSP and local development project construction-related traffic delays and congestion. The plan shall address construction-related traffic associated with all project sites in the vicinity of MPWSP project components (i.e., within 1 mile or would use the same roads) and whose construction schedules overlap that of the MPWSP. The construction traffic coordination plan shall, at a minimum, include the following components: <ul style="list-style-type: none"> <li>• Identification of all projects located in the vicinity of MPWSP project components (within 1 mile or would use the same roads) and whose construction schedules overlap that of the MPWSP.</li> <li>• Consideration for the types of construction-related vehicles and corresponding numbers and timing of trips associated with each said project.</li> <li>• An evaluation of roadways affected by construction activities and measures to minimize roadway and traffic disturbances (e.g., lane closures and detours). Impact minimization measures shall include, but not necessarily be limited to, elements that are part of the MPWSP's Traffic Control and Safety Assurance Plan (Mitigation Measure 4.9-1).</li> <li>• Phasing of construction activities, as necessary to prevent degradation of levels of service on affected roadways.</li> </ul>	X		X	X	X	X	CalAm will coordinate with affected jurisdictions to develop and implement the required Construction Traffic Coordination Plan and provide the CPUC with a copy of said Plan and related documentation demonstrating CalAm satisfactorily coordinated with the planning agencies of each affected jurisdiction. CPUC and affected local jurisdictions will monitor the implementation of the Plan.	Prior to and during construction.	Implementation of a Construction Traffic Coordination plan by CalAm that reduces cumulative effect of overlapping construction traffic in the affected jurisdictions. Continuous coordination between CalAm and affected jurisdictions that result in adjustments and refinements reducing traffic impacts.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.9: Traffic and Transportation (cont.)</b>									
<ul style="list-style-type: none"> <li>A program that provides for continual coordination with the affected agencies to allow for adjustments and refinements to the plan once construction is underway.</li> </ul> <p>The construction traffic plan may be modeled after or included within the plan described in <b>Mitigation Measure 4.9-1 (Traffic Control and Safety Assurance Plan)</b>. If necessary, separate construction traffic coordination plans (i.e., one for each affected jurisdiction) may be prepared, provided each is compatible.</p>									
<b>Section 4.10: Air Quality</b>									
<p><b>Impact 4.10-1: Generate emissions of criteria air pollutants and contribute to a violation of an ambient air quality standard during construction.</b></p> <p><b>Mitigation Measure 4.10-1a: Equipment with High-Tiered Engine Standards.</b></p> <p>For diesel-fueled off-road construction equipment of more than 50 horsepower, CalAm and/or its construction contractor shall make a good faith effort to use available construction equipment that meets the highest USEPA-certified tiered emission standards or is alternatively powered (e.g., with electricity, natural gas, propane, methanol and ethanol blends, or gasoline) construction equipment. For all pieces of equipment that would neither meet Tier 4 emission standards nor be alternatively powered, CalAm or its construction contractor shall provide to the CPUC documentation from two local heavy construction equipment rental companies that indicate that the companies do not have access to higher-tiered equipment or alternatively powered equipment for the given class of equipment. Such documentation shall be provided to the CPUC at least two weeks prior to the anticipated use of those pieces of equipment.</p>	X	X	X	X	X	X	CalAm shall provide the CPUC with documentation demonstrating that its construction contractor(s) successfully procured non-diesel-fueled construction equipment or diesel-fueled equipment that meets U.S. EPA Tier 4 emission standards or, in the alternative, documentation from two local heavy construction equipment rental companies indicating that the companies do not have access to such Tier 4 compliant or nondiesel-fueled equipment prior to commencement of construction. CPUC will monitor the efforts of CalAm and its contractors use of high-tiered construction equipment.	Prior to and during construction.	Documented use of available Tier 4 compliant or non-diesel-fueled construction equipment.
<p><b>Impact 4.10-1: Generate emissions of criteria air pollutants and contribute to a violation of an ambient air quality standard during construction.</b></p> <p><b>Mitigation Measure 4.10-1b: Idling Restrictions.</b></p> <p>In order to ensure that idling time for on road vehicles with a gross vehicular weight rating of 10,000 pounds or greater does not exceed the 5-minute limit established in Section 2485 of Title 13 CCR Section 2485, and that idling time for off-road engines does not exceed the 5 minute limit established in Title 13 CCR Section 2449(d)(3), CalAm and/or its construction contractor(s) shall prepare and implement a written idling policy and distribute it to all equipment operators. The idling policy shall extend the 5-minute idling limit to cover all on road vehicles (regardless of gross vehicular weight rating) and shall further require that for all diesel-powered off-road engines, the idling limit is reduced to 2 minutes, while maintaining the exceptions specified in Title 13 CCR Section 2449(d)(3). Clear signage of these requirements shall be provided for construction workers at all access points to construction areas.</p>	X	X	X	X	X	X	CalAm shall provide the CPUC and all of its construction equipment operators with a copy of the required written idling policy and evidence of signs containing the requirements of the policy provided/placed at all access points to construction areas prior to the use of any such area. or its contractors through contract specifications, will prepare and implement a written idling policy and distribute to all equipment operators with idling time restrictions for all vehicles. Signage of the idling requirements will be posted at all construction sites. CPUC will review and monitor idling policy implementation.	Prior to and during construction.	Compliance with all components of the required idling policy.
<p><b>Impact 4.10-1: Generate emissions of criteria air pollutants and contribute to a violation of an ambient air quality standard during construction.</b></p> <p><b>Mitigation Measure 4.10-1c: Construction Fugitive Dust Control Plan.</b></p> <p>CalAm shall require its construction contractor(s) to implement a dust control plan that includes, at minimum, the following dust control measures:</p> <ul style="list-style-type: none"> <li>Water all active construction areas at least three times daily;</li> <li>Cover all trucks hauling soil, sand, and other loose materials and require trucks to maintain at least 2 feet of freeboard;</li> <li>Apply water three times daily, or apply (non-toxic) soil stabilizers, on unpaved access roads, parking areas, and staging areas at construction sites;</li> <li>Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites;</li> </ul>	X	X	X	X	X	X	CalAm shall provide the CPUC with evidence, via copies of its construction contracts, signage or otherwise, demonstrating the measures included in and methods of implementing the required Fugitive Dust Control Plan (including its dust complaint requirements) prior to the commencement of construction. CPUC will monitor the efforts of CalAm and its contractors implementation of the dust plan.	Prior to and during construction.	Compliance with all components of the required Fugitive Dust Control Plan.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.10: Air Quality (cont.)</b>									
<ul style="list-style-type: none"> <li>Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets;</li> <li>Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more);</li> <li>Enclose, cover, or water twice daily exposed stockpiles (dirt, sand, etc.);</li> <li>Limit traffic speeds on unpaved roads to 15 miles per hour;</li> <li>Install sandbags or other erosion control measures to prevent silt runoff to public roadways;</li> <li>Replant native, drought-tolerant vegetation in disturbed areas as quickly as possible;</li> <li>Wheel washers shall be installed and used by truck operators at the exits of the construction sites to the MPWSP Desalination Plant, the slant wells, and the ASR well facilities; and</li> <li>Post a publicly visible sign that specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District (MBUAPCD) shall also be visible to ensure compliance with MBUAPCD rules.</li> </ul>									
<p><b>Impact 4.10-1: Generate emissions of criteria air pollutants and contribute to a violation of an ambient air quality standard during construction.</b></p> <p><b>Mitigation Measure 4.10-1e: Off-site Mitigation Program.</b></p> <p>CalAm shall work with the Monterey Bay Air Resources District (MBARD) and put forth a good faith effort to fund an off-site mitigation program that would be contemporaneous with project construction to offset construction-related NOx. CalAm shall provide to the lead agencies documentation showing that it has reached an agreement with MBARD to fund an off-site emissions mitigation program that shall include offsets to be executed during construction of the project. If such a program is determined by CalAm and MBARD to be infeasible given the construction schedule of the project, CalAm shall provide documentation to the Lead Agencies that substantiates such a determination. All documentation shall be provided to the Lead Agencies at least two weeks prior to the commencement of construction.</p>	X	X	X	X	X	X	CalAm shall provide the CPUC at least two weeks prior to commencement of construction with a fully-executed copy of the agreement entered into with MBARD to fund the required off-site mitigation program, or documentation demonstrating that CalAm and MBARD determined such a program was infeasible given the MPWSP construction schedule.	At least two weeks prior to and during construction.	Fund and implement off-site mitigation for NOx emissions at the same time as construction activities in compliance with CalAm's agreement, if any, with MBARD.
<p><b>Impact 4.10-2: Construction activities could conflict with implementation of the applicable air quality plan.</b></p> <p><b>Mitigation Measures 4.10-1a, 4.10-1b, and 4.10-1e</b></p>	X	X	X	X	X	X	See above under Mitigation Measures 4.10-1a, 4.10-1b, and 4.10-1e		
<p><b>Impact 4.10-C: Cumulative impacts related to air quality.</b></p> <p><b>Mitigation Measures 4.10-1a through 4.10-1e</b></p>	X	X	X	X	X	X	See above under Mitigation Measures 4.10-1a through 4.10-1e		
<b>Section 4.11: Greenhouse Gas Emissions</b>									
<p><b>Impact 4.11-1: Incremental contribution to climate change from GHG emissions associated with the proposed project.</b></p> <p><b>Mitigation Measure 4.11-1: GHG Emissions Reductions Plan.</b></p> <p>(a) <b>Energy Conservation Technologies.</b> CalAm shall have a qualified professional (a licensed mechanical engineer or other appropriately certified professional approved by the CPUC) prepare and submit a GHG Emissions Reduction Plan (Plan) to the CPUC for approval prior to the start of project construction activities. Once approved by the CPUC, the Plan shall be implemented. The Plan shall include a detailed description of the carbon footprint for all operational components of the approved project (e.g., slant well pumping, the MPWSP Desalination Plant, transmission of source and product water, ASR system) based on manufacturer energy usage specification data for each piece of equipment and the most current power system emissions factor for GHG emissions based on the energy portfolio of PG&amp;E, the applicable Electric Service Provider under Direct Access service, or Monterey Bay Community Power and its successors and assigns, as applicable.</p>	X	X	X	X	X		CalAm shall submit to the CPUC for review and approval the name and credentials of the qualified professional proposed to prepare the required GHG Emissions Reductions Plan; The Plan shall be submitted to CPUC for approval prior to commencement of construction. CPUC will monitor the progress and effectiveness of the Plan.	Prior to project construction and during project operation.	Implementation of and compliance with the required GHG Emissions Reduction Plan to achieve the required net zero emissions standard.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: CalAm Reports On, and the CPUC Monitors all Mitigation Measures	Implementation Schedule	
<b>Section 4.11: Greenhouse Gas Emissions (cont.)</b>									
<p>The Plan shall include a summary of state-of-the-art energy recovery and conservation technologies available for utility scale desalination facilities and shall include a commitment by CalAm to incorporate all available feasible energy recovery and conservation technologies; or, if CalAm finds that any of the technologies will not be feasible for the project, the Plan shall clearly explain why such technology is considered to be infeasible. The carbon footprint estimate for the project shall include consideration of all proposed energy recovery and conservation technologies that will be employed by the project, and shall describe the approximate GHG emissions reductions that will be associated with each technology.</p> <p>(b) <b>Renewable Energy.</b> CalAm shall ensure that the approved project's operational electricity use results in net zero GHG emissions. In meeting this net zero GHG emissions requirement, subject to the procedures below, CalAm shall adhere to the following loading order:</p> <ol style="list-style-type: none"> <li>(1) Obtain renewable energy from on-site solar photovoltaic (PV) panels and/or the adjacent Monterey Regional Waste Management District (MRWMD) landfill-gas-to-energy (LFGTE) facility.</li> <li>(2) Procure renewable energy from off-site sources within California via purchases from one or more of the following: (a) PG&amp;E, (b) an Electric Service Provider under Direct Access service, or (c) Monterey Bay Community Power and its successors and assigns.</li> <li>(3) Procure and retire Renewable Energy Certificates (also known as RECs, green tags, Renewable Energy Credits, Renewable Electricity Certificates, or Tradable Renewable Certificates) for projects or activities in California.</li> <li>(4) Procure and retire Carbon Offsets, in a quantity equal to the GHG emissions attributable to the project's operational electricity use. "Carbon Offset" means an instrument issued by an Approved Registry and shall represent the past reduction or sequestration of one metric ton of CO<sub>2</sub>e achieved by any GHG emission reduction project or activity within California. "Approved Registry" means: (i) the Climate Action Reserve, the American Carbon Registry, the Verified Carbon Standard, or the Clean Development Mechanism; or (ii) any other entity approved by the California Air Resources Board to act as an "offset project registry" under the state's Cap-and-Trade Program.</li> </ol> <p>CalAm may meet this net zero GHG emissions requirement via any of the options, or their future equivalents, or any combination of options, or their future equivalents, included in the aforementioned loading order.</p> <p>Further, CalAm shall progress through the loading order on the basis of the options' physical and economic feasibility, as reasonably determined by CalAm, with low-cost options preferred over high-cost options. In the event that options have equivalent costs, options enumerated earlier in the loading order shall be selected by CalAm over options enumerated later in the loading order. On or before June 1 of each year the approved project is in operation, CalAm shall submit documentation to the CPUC demonstrating that the project's operational electricity use in the immediately preceding calendar year resulted in net zero GHG emissions. Calculation of the GHG emissions attributable to the project's operational electricity use (if any) shall be calculated by CalAm on an annual basis using the most up-to-date emissions coefficient for purchased electricity (if any), as compiled or published by PG&amp;E, the applicable Electric Service Provider under Direct Access service, or Monterey Bay Community Power and its successors and assigns, as applicable. If the CPUC determines that CalAm failed to achieve net zero GHG emissions for the approved project's operational electricity use for a particular year, then the CPUC shall notify CalAm in writing of the exceedance within 45 days of receipt of the documentation submitted by CalAm under this mitigation measure. The notice shall specify the metric tons of GHG emissions that exceeded the net zero obligation. Within 45 days of receipt of this notice, CalAm shall procure and retire Carbon Offsets in an amount at least equivalent to the exceedance, and will submit documentation to the CPUC demonstrating this procurement and retirement.</p>									

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.11: Greenhouse Gas Emissions (cont.)</b>									
<b>Impact 4.11-1: Incremental contribution to climate change from GHG emissions associated with the proposed project.</b> <b>Mitigation Measure 4.18-1</b>	X	X	X	X	X	X	See below under Mitigation Measure 4.18-1		
<b>Impact 4.11-2: Conflict with the Executive Order B-30-15 Emissions Reduction Goal.</b> <b>Mitigation Measures 4.11-1 and 4.18-1</b>	X	X	X	X	X	X	See above under Mitigation Measure 4.11-1 and below under Mitigation Measure 4.18-1		
<b>Impact 4.11-3: Conflict with AB 32 Climate Change Scoping Plan.</b> <b>Mitigation Measure 4.11-1</b>	X	X	X	X	X	X	See above under Mitigation Measure 4.11-1		
<b>Impact 4.11-C: Cumulative impacts related to greenhouse gas emissions</b> <b>Mitigation Measures 4.11-1 and 4.18-1</b>	X	X	X	X	X	X	See above under Mitigation Measure 4.11-1 and below under Mitigation Measure 4.18-1		
<b>Section 4.12: Noise and Vibration</b>									
<b>Impact 4.12-1: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.</b> <b>Mitigation Measure 4.12-1a: Neighborhood Notice and Construction Disturbance Coordinator</b> The combination of public notice and the establishment of a construction disturbance coordinator can result in a lessening of the adversity of the impact at a given receptor by allowing them to prepare for pending construction activities and providing a contact to report any disturbances or violations to CalAm for appropriate response actions, including additional mitigation. Residents and other sensitive receptors within 300 feet of a daytime construction area and within 900 feet of a nighttime construction area shall be notified of the construction location, nature of activities, and schedule, in writing, at least 14 days prior to the commencement of construction activities. The notice shall also be posted along the proposed pipeline alignments, near the proposed facility sites, and at nearby recreational facilities. CalAm or the contractor(s) shall designate a construction disturbance coordinator who would be responsible for responding to construction complaints. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. CalAm and/or its contractor shall return all calls within 24 hours to answer noise questions and handle complaints. Documentation of the complaint and resolution shall be submitted to the CPUC weekly. A contact number for the construction disturbance coordinator shall be conspicuously placed on construction site fences and included in the notice. Prior to distributing the notice to nearby residences, CalAm or the contractor(s) shall first submit the notice to the respective city planning and services manager for review and approval. This measure shall be implemented in conjunction with the noticing provisions in Mitigation Measure 4.9-1 (Traffic Control and Safety Assurance Plan).	X	X	X	X	X	X	CalAm shall provide the CPUC with the name of CalAm's Construction Disturbance Coordinator and copies of the required notice(s) and evidence of all approvals thereof by city planning managers before commencement of construction; CalAm shall also provide documentation and evidence demonstrating the timely provision and posting of required notices as well as weekly documentation of all complaints and resolution efforts during project construction.	Prior to and during construction.	Implementation of neighborhood notices prior to construction activities and timely response to inquiries and resolution of complaints by residents.
<b>Impact 4.12-1: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.</b> <b>Mitigation Measure 4.12-1b: General Noise Controls for Construction Equipment and Activities.</b> The construction contractor(s) shall assure that construction equipment with internal combustion engines have sound control devices at least as effective as those provided by the original equipment manufacturer. No equipment shall be permitted to have an unmuffled exhaust.	X	X	X	X	X	X	CalAm shall provide the CPUC and all of its construction equipment operators with a copy of the required noise controls directed by CalAm's Construction Disturbance Coordinator. CalAm shall also provide documentation and evidence demonstrating the required noise controls on construction equipment as documented in weekly reports prepared the environmental monitor(s). CPUC will monitor the efforts of CalAm and its contractors implementation of noise controls.	Prior to and during construction.	Implementation of noise controls on construction equipment.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.12: Noise and Vibration (cont.)</b>									
Impact tools (i.e., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler shall be placed on the compressed air exhaust to lower noise levels by up to approximately 10 dBA. External jackets shall be used on impact tools, where feasible, in order to achieve a further reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible.  The construction contractor(s) shall locate staging areas and stationary noise sources as far from nearby receptors as possible, and shall muffle and enclose them in temporary sheds, incorporate noise barriers, or implement other noise control measures to the extent feasible. The noise controls shall be sufficient to reduce noise levels during drilling and development of ASR-5 and ASR-6 Wells, and pump station construction activities below the threshold of 70 dBA L <sub>eq</sub> .									
<b>Impact 4.12-1: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.</b>  <b>Mitigation Measure 4.12-1c: Noise Control Plan for Nighttime Pipeline Construction.</b> CalAm or a representative of CalAm shall submit a Noise Control Plan for all nighttime pipeline work to the California Public Utilities Commission for review and approval prior to the commencement of project construction activities. The Noise Control Plan shall identify all feasible noise control procedures to be implemented during nighttime pipeline installation in order to reduce noise levels to the extent practicable at the nearest residential or noise sensitive receptor. At a minimum, the Noise Control Plan shall require use of moveable noise screens, noise blankets, or other suitable sound attenuation devices be used to reduce noise levels during nighttime pipeline installation activities below 60 dBA L <sub>eq</sub> .	X	X	X	X	X	X	CalAm shall prepare and provide the required Noise Control Plan for nighttime pipeline construction to the CPUC for approval prior to the commencement of any such nighttime pipeline construction. CPUC will monitor the efforts of CalAm and its contractors' implementation of the noise control plan.	Prior to and during nighttime pipeline construction.	Compliance with the approved Noise Control Plan and achievement of its less than 60 dBA L <sub>eq</sub> performance standard.
<b>Impact 4.12-1: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.</b>  <b>Mitigation Measure 4.12-1d: Additional Noise Controls for ASR-5 and ASR-6 Wells.</b> In addition to the general noise controls that will be implemented as part of Mitigation Measure 4.12-1b (General Noise Controls for Construction Equipment), CalAm or its construction contractor(s) for the ASR-5 and ASR-6 Wells shall identify feasible noise controls for implementation during well drilling development activities at the Fitch Park military housing community. The construction contractor(s) shall locate all stationary noise-generating equipment as far as possible from nearby noise-sensitive receptors. Drill rigs within 500 feet of noise-sensitive receptors shall be equipped with noise-reducing engine housings or other noise-reducing technology. Additionally, acoustic barriers and/or enclosures shall be used with a goal of reducing noise from well drilling activities to 60 dBA, L <sub>eq</sub> or less at a distance of 50 feet from the construction work area. There are a number of options available to achieve this performance standard. Barrier blankets are available with a sound transmission class rating of 32, which can provide 16 to 40 dBA of sound transmission loss, depending on the frequency of the noise source (ENC, 2014). The realized sound transmission reduction of barrier blankets needs to be sufficient to achieve the performance standard of 60 dBA, L <sub>eq</sub> or less at a distance of 50 feet from the construction work area.				X			CalAm shall provide the CPUC with the required additional noise controls proposed to be implemented for the ASR-5 and ASR-6 Wells for approval before commencement of any such well drilling activities, through contract specifications, will ensure contractors use noise controls on construction equipment at the ASR-5 and -6 wells. CPUC will monitor the efforts of CalAm and its contractors' implementation of noise controls.	Prior to and during ASR-5 and ASR-6 Well construction.	Compliance with the approved additional noise controls on construction equipment at the ASR-5 and -6 wells and achievement of the required less than 60 dBA L <sub>eq</sub> performance standard.
<b>Impact 4.12-1: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.</b>  <b>Mitigation Measure 4.12-1e: Offsite Accommodations for Substantially Affected Nighttime Receptors.</b> CalAm shall provide temporary hotel accommodations for all residences and any other nighttime sensitive: 1. That would be exposed to 24-hour project construction activities and 2. Where nighttime construction noise would exceed 60 dBA with windows closed or 35 dBA with windows open, even with implementation of acoustic barriers and/or shielding measures.		X	X	X	X	X	CalAm shall provide the CPUC with documentation demonstrating that it provided the required temporary hotel accommodations and per diem allowances prior to the commencement of any such 24-hour project construction activities capable of exceeding the mitigation measure's windows closed/open thresholds. CPUC will monitor CalAm's nighttime construction noise monitoring and provision of accommodations.	Prior to and during construction.	Provision of temporary accommodations and per diem allowances to affected receptors.



**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.12: Noise and Vibration (cont.)</b>									
The accommodations shall be provided for the duration of 24-hour construction activities. CalAm shall provide accommodations reasonably similar to those of the impacted residents in terms of number of beds and amenities. If identified accommodations do not include typical residential kitchen facilities (e.g., cooktop, oven, full size refrigerator), then CalAm shall provide displaced individuals with a per diem allowance to offset costs of meals for the period of relocation.									
<b>Impact 4.12-2: Expose people to or generate noise levels in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies during construction.</b> <b>Mitigation Measures 4.12-1b and 4.12-1c</b>	X	X	X	X	X	X	See above under Mitigation Measures 4.12-1b and 4.12-1c		
<b>Impact 4.12-3: Expose people to or generate excessive groundborne vibration during construction.</b> <b>Mitigation Measure 4.12-3: Vibration Reduction Measures.</b> Construction practices shall be utilized that do not generate vibration levels at the closest sensitive land uses above 0.1 in/sec PPV. The following measures, at a minimum, shall be employed to ensure this threshold is met: a. Vibration monitoring shall be conducted for the first 500 feet of pipeline construction for each segment to confirm vibration levels do not exceed the above vibration threshold. If vibration levels exceed the limits of this mitigation measure, construction practices shall be modified to use smaller types of construction equipment or excavator-mounted compaction wheels, operate the equipment in a manner to reduce vibration, or use alternate construction methods, (such as use of manual shoring jacks), and monitoring shall continue for an additional 200 feet or until construction practices meet the required vibration levels. The monitoring in this mitigation measure shall be repeated if the construction methods change in a manner that would increase vibration levels, or when structures are closer to the limits of construction than previous vibration monitoring have confirmed is below the vibration thresholds. b. Smaller vibratory rollers shall be used to minimize vibration levels during repaving activities where needed to meet vibration limits. c. Sheet pile driving for trenchless pipeline installation shall be conducted during daytime hours and access pits shall be located greater than 45 feet from standard structures and 80 feet from historic resources.	X	X	X	X	X	X	CalAm shall provide the CPUC with vibration monitoring reports/documentation demonstrating the construction practices used to achieve compliance with the 0.1 in/sec PPV standard. CPUC will monitor the effectiveness of construction vibration suppression measures.	During construction.	Vibration at the closest sensitive land use not exceeding the 0.1 in/sec PPV threshold.
<b>Impact 4.12-4: Conflict with the construction time limits established by the local jurisdictions.</b> <b>Mitigation Measure 4.12-1c</b>	X	X	X	X	X	X	See above under Mitigation Measure 4.12-1c		
<b>Impact 4.12-4: Conflict with the construction time limits established by the local jurisdictions.</b> <b>Mitigation Measure 4.12-4: Nighttime Construction Restrictions in Marina</b> Open trench pipeline construction work within 500 feet to residential uses or transient lodging shall be restricted to the hours of 7:00 a.m. to 7:00 p.m. (standard time) Monday through Saturday, and 10:00 a.m. to 7:00 p.m. (standard time) on Sundays and holidays. During daylight savings time, construction hours may be extended to 8:00 p.m.						X	CalAm shall provide the CPUC with documentation demonstrating compliance with the required open trench pipeline construction restrictions. CPUC will monitor construction activities in Marina.	Prior to and during construction.	Compliance with the nighttime open trench pipeline construction restrictions in Marina.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.12: Noise and Vibration (cont.)</b>									
<p><b>Impact 4.12-5: Result in a substantial permanent increase in ambient noise levels in the project vicinity during project operations.</b></p> <p><b>Mitigation Measure 4.12-5: Stationary-Source Noise Controls.</b></p> <p>CalAm shall retain an acoustical engineer to design stationary-source noise controls and ensure the applicable noise standards are met. At a minimum, all stationary noise sources (e.g., pump station, emergency generators, variable-frequency-drive motors, well heads with motors) shall be located within enclosed structures and with adequate noise screening, as needed, to maintain noise levels to no greater than 5 dBA above the existing monitored ambient values and 60 CNEL, at the property lines of nearby residences and other noise-sensitive receptors. Once the stationary noise sources have been installed, the contractor(s) shall conduct a single long-term (24-hour) monitoring of noise levels to ensure compliance with local noise standards. CalAm shall submit a compliance monitoring report to the CPUC.</p>	X		X	X	X		CalAm shall provide the CPUC with the name and credentials of the acoustical engineer for approval and documentation showing the stationary-source noise controls the engineer designed as well as demonstrating that implementation of those controls achieved the required noise standards. CPUC will monitor the effectiveness of noise controls.	Prior to project operations.	Compliance with stationary-source noise standard (e.g., no greater than 5 dBA above the existing monitored ambient values and 60 CNEL, at the property lines of nearby residences and other noise-sensitive receptors).
<p><b>Impact 4.12-C: Cumulative impacts related to noise and vibration.</b></p> <p><b>Mitigation Measures 4.12-1a, 4.12-1b, 4.12-1c, 4.12-1d, 4.12-1e, and 4.12-3</b></p>	X	X	X	X	X	X	See above under Mitigation Measures 4.12-1a, 4.12-1b, 4.12-1c, 4.12-1d, 4.12-1e, and 4.12-3		
<b>Section 4.13: Public Services and Utilities</b>									
<p><b>Impact 4.13-1: Disrupt or relocate regional or local utilities during construction.</b></p> <p><b>Mitigation Measure 4.13-1a: Locate and Confirm Utility Lines.</b></p> <p>Before excavation begins, CalAm or its contractor(s) shall locate all overhead and underground utility lines (such as natural gas, electricity, sewage, telephone, fuel, and water lines) that are reasonably expected to be encountered during excavation. When a project excavation is within the approximate location of a subsurface utility, CalAm or its contractor shall determine the exact location of the underground utility by safe and acceptable means, including the use of hand tools and modern techniques. Information regarding the size, color, and location of existing utilities shall be confirmed before construction activities begin. These utilities shall be highlighted on all construction drawings.</p>	X	X	X	X	X	X	CalAm shall provide to the CPUC final design drawings which highlight all utilities expected to be encountered during excavation for approval before commencement of any excavation and provide documentation demonstrating that the exact location, size and color of all such utilities were confirmed when excavation is within the approximate location of such utilities shown on the design drawings. CPUC and local utilities will review locations identified by the contractors.	Prior to and during construction.	Map utilities on design drawings prior to and confirm and report on exact location, size and color of utilities during excavation.
<p><b>Impact 4.13-1: Disrupt or relocate regional or local utilities during construction.</b></p> <p><b>Mitigation Measure 4.13-1b: Coordinate Final Construction Plans with Affected Utilities.</b></p> <p>CalAm or its contractor(s) shall coordinate final construction plans, schedule, and specifications with affected utilities. Arrangements shall be made with these entities regarding the appropriate protection, relocation, or temporary disconnection of services. If any interruption of service is required, CalAm or its contractor(s) shall notify residents and businesses in the project corridor of any planned utility service disruption at least 2 working days and up to 14 calendar days in advance, in conformance with county and state standards.</p>	X	X	X	X	X	X	CalAm shall provide to the CPUC documentation demonstrating that it coordinated final construction plans, schedule and specifications with all affected utilities and reporting on all arrangements required by the utilities and timely notices provided to residents/business concerning any related utility service disruptions. CPUC and local utilities will monitor the arrangements and notifications.	Prior to and during construction.	Compliance with arrangements made in advance with local utilities for the protection, relocation, or temporary disruption in service and timely provision of utility service disruptions to affected customers (i.e., at least 2 working but not more than 14 calendar days in advance of disruption in service).

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.13: Public Services and Utilities (cont.)</b>									
<p><b>Impact 4.13-1: Disrupt or relocate regional or local utilities during construction.</b></p> <p><b>Mitigation Measure 4.13-1c: Safeguard Employees from Potential Accidents Related to Underground Utilities.</b> When any excavation is open, the construction contractor(s) shall protect, support, or remove underground utilities as necessary to safeguard employees.</p> <p>The contractor(s) shall be required to provide weekly updates to CalAm and construction workers regarding the planned excavations for the upcoming week, and to specify when construction will occur near a high-priority utility (i.e., pipelines carrying petroleum products, oxygen, chlorine, or toxic or flammable gases; natural gas pipelines greater than 6 inches in diameter or with normal operating pressures greater than 60 pounds per square inch gauge; and underground electric supply lines, conductors, or cables that have a potential to ground more than 300 volts that do not have effectively grounded sheaths). Construction managers shall hold regular tailgate meetings with construction staff on days when work near high-priority utilities will occur to review all safety measures regarding such excavations, including measures identified in the Mitigation Monitoring and Reporting Program and in construction specifications. The contractor shall designate a qualified Health and Safety Officer who shall specify a safe distance to work near high-priority utilities. Excavation near such utility lines shall not be authorized until the designated Health and Safety Officer confirms and documents in the construction records that: (1) the line was appropriately located in the field by the utility owner using as-built drawings and a pipeline-locating device; and (2) the location was verified by hand by the construction contractor.</p>	X	X	X	X	X	X	CalAm shall provide the CPUC with copies of construction contracts containing the requirements of this mitigation, the required weekly updates in advance of construction near high-priority utilities, and evidence that construction managers held safety meetings before work near these utilities occurs. CPUC and local utilities will monitor the safety practices of contractors for work near high-priority utilities.	Prior to and during construction.	Compliance with required safety procedures for work near high-priority utilities.
<p><b>Impact 4.13-1: Disrupt or relocate regional or local utilities during construction.</b></p> <p><b>Mitigation Measure 4.13-1d: Emergency Response Plan.</b> Before commencement of construction, CalAm or its contractor(s) shall develop an emergency response plan that outlines procedures to follow in the event of a leak or explosion and submit a copy to the CPUC and MBNMS. The emergency response plan shall identify the names and phone numbers of staff at the potentially affected utilities that would be available 24 hours per day in the event that construction activities cause damage to or rupture of a high-risk utility. The plan shall also detail emergency response protocols, including notification, inspection, and evacuation procedures; any equipment and vendors necessary to respond to an emergency (such as an alarm system); and routine inspection guidelines.</p>	X	X	X	X	X	X	CalAm shall prepare and provide the required Emergency Response Plan to the CPUC for approval prior to commencement of construction and provide documentation demonstrating that the approved Plan is posted at all job sites. CPUC and MBNMS will review the plan and monitor its implementation by contractors.	Prior to and during construction.	Compliance with all components of the approved Emergency Response Plan and post a copy of the Plan at all job sites.
<p><b>Impact 4.13-1: Disrupt or relocate regional or local utilities during construction.</b></p> <p><b>Mitigation Measure 4.13-1e: Notify Local Fire Departments.</b> CalAm or its contractor(s) shall notify local fire departments in advance of any work that is to be performed within or adjacent to a right-of-way that contains a gas utility line, or any time damage to a gas utility line results in a leak or suspected leak, or whenever damage to any utility results in a threat to public safety.</p>	X	X	X	X	X	X	CalAm shall provide copies of all construction contracts demonstrating contractors are required to notify local fire departments in advance of any work in or adjacent to gas utility lines or any time a gas leak occurs/is suspected or damage to a utility results in a public safety threat as well as copies of all such notifications provided to local fire departments. CPUC and MBNMS will monitor notifications.	Prior to and during construction.	Notification of local fire departments in advance of any work in or adjacent to gas utility lines.
<p><b>Impact 4.13-1: Disrupt or relocate regional or local utilities during construction.</b></p> <p><b>Mitigation Measure 4.13-1f: Ensure Prompt Reconnection of Utilities.</b> CalAm or its contractor(s) shall promptly contact utility providers to reconnect any disconnected utility lines as soon as it is safe to do so.</p>	X	X	X	X	X	X	CalAm shall provide the CPUC with documentation demonstrating that prompt contact with utility providers requesting the reconnection of any disconnected utility lines was made. CPUC and MBNMS will monitor notifications.	During construction.	Notification of local utilities to reconnect service lines when it is safe to do so.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.13: Public Services and Utilities (cont.)</b>									
<p><b>Impact 4.13-2: Exceed landfill capacity or be out of compliance with federal, state, and local statutes and regulations related to solid waste during construction.</b></p> <p><b>Mitigation Measure 4.13-2: Construction Waste Reduction and Recycling Plan.</b></p> <p>The construction contractor(s) shall prepare and implement a construction waste reduction and recycling plan identifying the types of debris the project will generate and the manner in which those waste streams will be handled. In accordance with the California Integrated Waste Management Act of 1989, the plan shall emphasize source reduction measures, followed by recycling and composting methods, to ensure that construction and demolition waste generated by the project is managed consistent with applicable statutes and regulations. In accordance with the California Green Building Standards Code and local regulations, the plan shall specify that all trees, stumps, rocks, and associated vegetation and soils, and 50 percent of all other nonhazardous construction and demolition waste, be diverted from landfill disposal. The plan shall be prepared in coordination with the Monterey Regional Waste Management District and be consistent with Monterey County's Integrated Waste Management Plan. Upon project completion, CalAm shall collect the receipts from the contractor(s) and submit them to the CPUC as documentation that the waste reduction, recycling, and diversion goals have been met.</p>	X	X	X	X	X	X	CalAm shall coordinate with the Monterey Regional Waste Management District in preparing and provide the CPUC with the required Construction Waste Reduction and Recycling Plan for approval prior to the commencement of construction. CalAm shall also collect and provide the CPUC with all receipts and other documentation demonstrating that the Plan's waste reduction, recycling and diversion goals were achieved. CPUC and MBNMS will review the plan and monitor its implementation.	Prior to and during construction.	Compliance with all components of the Construction Waste Reduction and Recycling Plan and document achievement of the Plan's waste reduction, recycling and diversion goals.
<p><b>Impact 4.13-4: Exceed wastewater treatment requirements of the Central Coast RWQCB, or result in a determination by the wastewater treatment provider that it has inadequate treatment or outfall capacity to serve the project.</b></p> <p><b>Mitigation Measures 4.3-4 and 4.3-5</b></p>	X	X	X	X	X	X	See above in Mitigation Measures 4.3-4 and 4.3-5		
<p><b>Impact 4.13-5: Increased corrosion of the M1W outfall as a result of brine discharges associated with project operations.</b></p> <p><b>Mitigation Measure 4.13-5a: Replacement of WEKO seal clamps, Periodic Inspections, and As-Needed Repairs for Offshore Segment of M1W Ocean Outfall.</b></p> <p>Prior to operation of the MPWSP Desalination Plant, and as part of an agreement with M1W to use the outfall for brine discharge, CalAm shall protect the offshore segment of the M1W ocean outfall from corrosion, by replacing the existing WEKO seal clamps in the nearshore portion of the ocean outfall with new corrosion-resistant clamps.</p> <p>Installation of the WEKO seal clamps shall occur prior to relocation of the existing beach junction box to allow for optimal access to the outfall. Construction shall occur in late summer/early fall, during the irrigation season, when flows in the outfall would typically be de minimis; this timing would also be late in the snowy plover nesting season when eggs would have hatched. Access to the offshore portion of the outfall shall be through the existing beach junction box and de minimus flows will continue to be released through the outfall during the installation process. Any emergency high effluent flows resulting from process upsets at the treatment plant or rainfall events, shall be stored and then released through the outfall after the divers have safely exited the outfall.</p> <p>Construction access shall follow along the existing outfall access road. The staging and work area shall be created on already disturbed ground at the western end of the access road and consist of no larger than a 50 square foot area for divers and diving equipment, a 20-foot container for equipment storage and a 5kw generator (in a sound enclosure) to be used if power is not available onsite. If the beach junction box and discharge pipeline are covered by sand, or if sand needs to be removed for staging, excavation would be accomplished using a backhoe or excavator. Up to one-half acre around the junction structure may be disturbed. Three working shifts per day may be required, and the installation would take approximately 6-8 weeks.</p> <p>During construction, beach access shall remain open, with the potential exception of extreme high tide events. The contractor shall install temporary fencing around the construction site and construction shall be prohibited outside of the defined construction, staging, and storage areas. Construction work shall not be conducted seaward of the mean high water line unless tidal waters have receded from the authorized work areas. Construction vehicles operating on</p>		X					Prior to the operation of the MPWSP Desalination Plant, CalAm shall enter into the required agreement with the M1W and provide a copy of that agreement and documentation to the CPUC demonstrating that the existing WEKO seal clamps were replaced in compliance with the MM's timing requirements. CalAm shall also enter into an agreement with M1W to perform the required periodic inspections of the offshore portion of the M1W outfall and diffuser and provide a copy of that agreement to the CPUC as well as documentation and photographs demonstrating compliance with the required inspections and condition of the outfall and diffuser. CPUC, MBNMS, and M1W will monitor the protection of the outfall.	Prior to and during operation of the MPWSP Desalination Plant.	Installation of new corrosion-resistant clamps prior to operations. Periodic inspections of the offshore portion of the M1W outfall and diffuser and any necessary replacement or maintenance required.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.13: Public Services and Utilities (cont.)</b>									
<p>the beach shall be rubber-tired, and while in operation shall remain as high on the upper beach as possible to avoid contact with ocean waters and intertidal areas. Any construction materials and equipment placed on the beach shall be stored beyond the reach of tidal waters. Materials intended to be left on the beach overnight must be approved by the Coastal Development Permit issuing and authorizing agencies and shall be subject to a contingency plan for moving materials in the event of a tidal wave/surge. All accessways impacted by construction activities shall be restored to their pre-construction condition or better within 3 days of completion of construction. Any beach sand in the area that is impacted by construction shall be filtered as necessary to remove construction debris. Construction areas shall maintain good construction site housekeeping controls and procedures (leak/spill clean-up; cover equipment in rain; cover exposed piles of soil/waste; dispose of waste properly; remove construction debris from beach). All construction activities that result in discharge of materials, polluted runoff, or wastes to the beach or the adjacent marine environment are prohibited. All exposed slopes and soil surface in and/or adjacent to the construction area shall be stabilized with erosion control best management practices.</p> <p>CalAm shall enter into an agreement with M1W to perform periodic inspections of the offshore portion of the M1W outfall and diffuser. Annual inspections shall occur for the first three years after the MPWSP Desalination Plant is brought online. Thereafter, the offshore portion of the outfall shall be inspected every five years. During each inspection, photo documentation shall be provided for all areas of inspections, regardless of findings, to provide for photographic comparison over time. All inspections shall include documentation of the thickness of scaling, any exposure or corrosion of reinforcing steel, significant cracking or spalling of concrete, and any pitting of metals. Any necessary repairs to the outfall and/or diffuser shall be identified and performed.</p>									
<p><b>Impact 4.13-5: Increased corrosion of the M1W outfall and diffuser as a result of brine discharges associated with project operations.</b></p> <p><b>Mitigation Measure 4.13-5b: Install Protective Lining in Land Segment of M1W Ocean Outfall.</b></p> <p>Prior to operation of the MPWSP Desalination Plant, and as part of an agreement with M1W to use the outfall for brine discharge, CalAm shall line the land segment of the outfall with a protective liner system.</p> <p>Installation of the liner shall occur only during the irrigation season (April through September), when flows in the outfall would be minimal. Installation of the liner in any given portion of the land segment is not expected to exceed 7 to 10 days. M1W has identified 10 locations within the M1W right-of-way (see Figure 4.13-1) from which</p> <p>CalAm or its contractor can access the land segment for installation of the liner; only these locations shall be used. Contractors shall install temporary fencing to denote the access limits for construction crews. The excavation pit at each access point shall be located directly above the outfall pipe and shall not exceed a size of 12 feet by 25 feet. Soils shall be stockpiled within the existing outfall right-of-way, and topsoil shall be stored in a separate pile for use in restoration following installation. Erosion and dust control measures shall comply with the applicable Stormwater Pollution Prevention Plan (SWPPP). After liner installation, the contractor shall restore soil in the pits to nearly pre-construction compaction levels and shall replace stockpiled topsoil to match pre-construction elevations.</p> <p>To address the small amount of effluent flowing through the portion of the land segment to be lined between April and September, the contractor shall plug and dewater the outfall segment being lined, if needed, and use a 24-inch diameter bypass pipe to divert flows around the affected portion of the outfall.</p>		X					<p>Prior to operation of the MPWSP Desalination Plan CalAm shall provide the CPUC with documentation demonstrating that it lined the land segment of the outfall with a protective liner system during the irrigation season and information on the type and specifications of the protective lining system used.</p>	<p>Prior to operation of the MPWSP Desalination Plant.</p>	<p>Installation of liner system during irrigation season prior to operation of the MPWSP Desalination Plant.</p>
<p><b>Impact 4.13-C: Cumulative impacts related to public services and utilities.</b></p> <p><b>Mitigation Measures 4.3-4, 4.3-5, 4.13-1a, 4.13-1b, 4.13-1c, 4.13-1d, 4.13-1e, 4.13-1f, 4.13-2, 4.13-5a, and 4.13-5b</b></p>	X	X	X	X	X	X	<p>See above in Mitigation Measures 4.3-4, 4.3-5, 4.13-1a, 4.13-1b, 4.13-1c, 4.13-1d, 4.13-1e, 4.13-1f, 4.13-2, 4.13-5a, and 4.13-5b</p>		

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.14: Aesthetic Resources</b>									
<p><b>Impact 4.14-1: Construction-related impacts on scenic resources (vistas, roadways, and designated scenic areas) or the visual character of the project area and its surroundings.</b></p> <p><b>Mitigation Measure 4.14-1: Maintain Clean and Orderly Construction Sites.</b></p> <p>As part of contract specifications, CalAm shall include a requirement that the construction contractor(s) keep staging and construction areas as clean and inconspicuous as practicable by storing construction materials and equipment at the proposed construction staging areas or in areas that are generally away from public view when not in use, and by removing construction debris promptly at regular intervals. If necessary, additional appropriate screening (e.g., temporary opaque fencing) shall be used at construction sites to buffer views of construction equipment and material, where the use of such screening materials would not further degrade the visual character or further obstruct views of scenic resources or vistas in the area. Screening is not required for pipeline construction areas.</p>	X		X	X	X	X	CalAm shall provide the CPUC with copies of all construction contracts demonstrating inclusion of the required clean and orderly construction site provisions prior to the commencement of construction, CPUC will monitor the maintenance of construction sites.	Prior to and during construction.	Maintain clean and orderly construction site.
<p><b>Impact 4.14-2: Temporary sources of substantial light or glare during construction.</b></p> <p><b>Mitigation Measure 4.14-2: Site-Specific Nighttime Lighting Measures.</b></p> <p>To prevent exterior lighting from affecting nighttime views, the design, construction, and operation of lighting at MPWSP facilities, shall adhere to the following requirements:</p> <ul style="list-style-type: none"> <li>• Use of low-intensity street lighting and low-intensity exterior lighting shall be required.</li> <li>• Lighting fixtures shall be cast downward and shielded to prevent light from spilling onto adjacent offsite uses.</li> <li>• Lighting fixtures shall be designed and placed to minimize glare that could affect users of adjacent properties, buildings, and roadways.</li> <li>• Fixtures and standards shall conform to state and local safety and illumination requirements.</li> </ul> <p>CalAm shall ensure these measures are implemented at all times during nighttime construction and for the duration of all required nighttime construction activity.</p>	X	X	X	X	X	X	CalAm shall provide the CPUC with documentation demonstrating that all planned construction lighting complies with this measure's requirements prior to the commencement of construction. CPUC will monitor the nighttime lighting measures.	Prior to and during construction.	Prevention of nighttime lighting from affecting nighttime views.
<p><b>Impact 4.14-3: Permanent impacts on scenic resources (vistas, roadways, and designated scenic areas) or the visual character of the project area and its surroundings.</b></p> <p><b>Mitigation Measure 4.14-3a: Facility Design.</b></p> <p>CalAm shall avoid reflective exterior finishes and treat visible structures with earth-tone finishes to reduce contrast with the ground surface and increase compatibility with the visual setting. Primary structures shall be treated with complementary colors in the brown, tan, gray, or green color spectrum, or with other natural colors. Choose paint and exterior finishes to ensure that structures blend into the surrounding landscape.</p>	X		X	X	X	X	CalAm shall provide the CPUC with documentation and photos/colors of the proposed finishes/colors for all exterior finishes and visible structures for approval to ensure all such finishes/structures will be treated with non-reflective, earth-tone finishes as required by this MM. CPUC will review and approve the choice of finishes prior to application.	After construction and during operations.	Application of approved finishes/colors that are compatible with surrounding visual settings.
<p><b>Impact 4.14-3: Permanent impacts on scenic resources (vistas, roadways, and designated scenic areas) or the visual character of the project area and its surroundings.</b></p> <p><b>Mitigation Measure 4.14-3b: Facility Screening.</b></p> <p>CalAm shall ensure that fencing is designed to be minimally intrusive and to complement the architectural character of the proposed facility and the community. Fencing design shall be coordinated with nearby landscaping and MPWSP facility design to ensure all project components blend with the surrounding community and/or natural setting. Native plants, trees, or shrubs shall be used whenever practicable to screen views of the proposed aboveground facilities. Facility screening shall be in keeping with the character of the site and setting, and walled perimeters shall be avoided in natural settings to minimize the dominance of structures.</p>	X		X	X	X	X	CalAm shall provide the CPUC with documentation demonstrating proposed fencing, landscaping and other proposed facility screening methods for approval prior to operation of the facilities.	After construction and during operations.	Installation of approved fencing, landscaping and other facility screening methods to ensure project facilities blend in with surrounding community and/or natural settings.
<p><b>Impact 4.14-4: Permanent new sources of light or glare.</b></p> <p><b>Mitigation Measure 4.14-2</b></p>	X	X	X	X	X	X	See above under Mitigation Measure 4.14-2		

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.14: Aesthetic Resources (cont.)</b>									
<b>Impact 4.14-C: Cumulative impacts related to aesthetic resources.</b>	X	X	X	X	X	X	See above under Mitigation Measure 4.14-2		
<b>Mitigation Measure 4.14-2</b>									
<b>Section 4.15: Cultural and Paleontological Resources</b>									
<b>Impact 4.15-2: Cause a substantial adverse change during construction in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or historic properties pursuant to 36 CFR 800.5.</b>	X	X	X	X	X	X	CalAm shall provide the CPUC with the name and qualifications of its archaeologist and a copy of the required Archaeological Monitoring Plan (including a proposed Archaeological Research Design and Treatment Plan) for approval prior to commencement of construction. CPUC and MBNMS will monitor the implementation of the plan.	Prior to and during construction.	Compliance with all components of the approved Plan and protecting archaeologically sensitive areas. Implementation of the ARDTP.
<b>Mitigation Measure 4.15-2a: Establish Archaeologically Sensitive Areas.</b> CalAm shall contract with a qualified archaeologist meeting the Secretary of the Interior's Qualification Standard (Lead Archaeologist) to prepare and implement an Archaeological Monitoring Plan, and oversee and direct all archaeological monitoring activities during project construction. Archaeological monitoring shall be conducted for all subsurface excavation work within 100 feet of the Castroville Pipeline at Tembladero Slough and the Salinas River; and the Source Water Pipeline in the Lapis Sand Mining Plant Historic District. At a minimum, the Archaeological Monitoring Plan shall: <ul style="list-style-type: none"> <li>• Detail the cultural resources training program that shall be completed by all construction and field workers involved in ground disturbance;</li> <li>• Designate the person(s) responsible for conducting monitoring activities, including Native American monitor(s), if deemed necessary;</li> <li>• Establish monitoring protocols to ensure monitoring is conducted in accordance with current professional standards provided by the California Office of Historic Preservation;</li> <li>• Establish the template and content requirements for monitoring reports;</li> <li>• Establish a schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports;</li> <li>• Establish protocols for notifications in case of encountering cultural resources, as well as methods for evaluating significance, developing and implementing plan to avoid or mitigate significant resource impacts, Native American participation and consultation, collection and curation plan, and consistency with applicable laws including Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code;</li> <li>• Establish methods to ensure security of cultural resources sites;</li> <li>• Describe the appropriate protocols for notifying the County, Native Americans, and local authorities (i.e. Sheriff, Police) should site looting and other illegal activities occur during construction with reference to Public Resources Code 5097.99.</li> </ul> During the course of the monitoring, the Lead Archaeologist may adjust the frequency—from continuous to intermittent—of the monitoring based on the conditions and professional judgment regarding the potential to encounter resources. If archaeological materials are encountered, all soil disturbing activities within 100 feet of the find shall cease until the resource is evaluated. The Lead Archaeologist shall immediately notify the CPUC and MBNMS of the encountered archaeological resource. The Lead Archaeologist shall, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological resource, present the findings of this assessment to the Lead Agencies. In the event archaeological resources qualifying as either historical resources pursuant to CEQA Section 15064.5 or as unique archaeological resources as defined by Public Resources Code 21083.2 are encountered, preservation in place shall be the preferred manner of mitigation.									

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.15: Cultural and Paleontological Resources (cont.)</b>									
<p>If preservation in place is not feasible, the applicant shall implement an Archaeological Research Design and Treatment Plan (ARDTP). The Lead Archaeologist, Native American representatives, MBNMS and the CPUC shall meet to determine the scope of the ARDTP. The ARDTP will identify a program for the treatment and recovery of important scientific data contained within the portions of the archaeological resources located within the project Area of Potential Effects (APE); would preserve any significant historical information obtained and will identify the scientific/historic research questions applicable to the resources, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The results of the investigation shall be documented in a technical report that provides a full artifact catalog, analysis of items collected, results of any special studies conducted, and interpretations of the resource within a regional and local context. All technical documents shall be placed on file at the Northwest Information Center of the California Historical Resources Information System.</p>									
<p><b>Impact 4.15-2: Cause a substantial adverse change during construction in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or historic properties pursuant to 36 CFR 800.5.</b></p> <p><b>Mitigation Measure 4.15-2b: Inadvertent Discovery of Cultural Resources.</b></p> <p>Following implementation of Mitigation Measure 4.15-2a, if prehistoric or historic-era cultural materials are encountered, all construction activities within 100 feet shall halt and the Lead Agencies shall be notified. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.</p> <p>For discoveries on lands other than Army-owned lands, a Secretary of the Interior-qualified archaeologist shall inspect the find within 24 hours of discovery. If the find is determined to be potentially significant, the archaeologist, in consultation with MBNMS, the CPUC and the appropriate Native American representative shall determine whether preservation in place is feasible. Consistent with CEQA Guidelines Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist, in consultation with the Lead Agency and the appropriate Native American representative, shall prepare and implement a detailed Archaeological Research Design and Treatment Plan (ARDTP). Treatment of unique archaeological resources shall follow the applicable requirements of Public Resources Code Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The ARDTP shall include provisions for analysis of data in a regional context, reporting of results within a timely manner and subject to review and comments by the appropriate Native American representative before being finalized, curation of artifacts and data at a local facility acceptable to the appropriate Native American representative, and dissemination of final confidential reports to the appropriate Native American representative, the Northwest Information Center of the California Historical Resources Information System, the CPUC, MBNMS and interested professionals.</p> <p>If cultural resources are inadvertently discovered during construction on Army-owned property, work shall immediately cease within a 100-foot radius of the find and the Army, Presidio of Monterey, Cultural Resources Manager (CRM) will be contacted to assess the discovery. For discoveries on Army lands, the CRM will implement procedures set forth in the Presidio’s Integrated Cultural Resources Management Plan (ICRMP) and Army Regulation (AR 200-1), which may include completion of consultation under Section 106 of the National Historic Preservation Act (NHPA) prior to resuming construction in the vicinity of the find. CalAm shall be responsible for completing any additional archaeological work required to comply with federal regulations.</p>	X	X	X	X	X	X	<p>The archaeologist hired by CalAm will notify MBNMS and CPUC if prehistoric or historic-era cultural materials are encountered and will halt construction activities within 100 feet of the found materials. If the find is determined to be potentially significant, the archaeologist, in consultation with MBNMS, the CPUC and the appropriate Native American representative shall determine whether preservation in place is feasible. If avoidance is not feasible, the archaeologist will prepare implement an ARDTP. CPUC, MBNMS, the U.S. Army, and Native American representatives will monitor the implementation of protocols and the ARDTP in the event of a find.</p>	<p>Prior to and during construction.</p>	<p>Implementation of construction protocols to protect cultural resources found during construction. Halting construction and implementation of the ARDTP.</p>



**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.15: Cultural and Paleontological Resources (cont.)</b>									
<p><b>Impact 4.15-4: Disturbance of any human remains, including those interred outside of formal cemeteries, during construction.</b></p> <p><b>Mitigation Measure 4.15-4: Inadvertent Discovery of Human Remains.</b></p> <p>In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find shall cease. For discoveries on lands other than Army-owned lands, the Monterey County Coroner shall be contacted immediately. The Coroner then has two working days to determine if the remains are Native American. If the remains are determined to be Native American, and no investigation of the cause of death is required, the Native American Heritage Commission (NAHC) shall be contacted within 24 hours. The NAHC shall then identify and contact the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American(s), who in turn would make recommendations to the project applicant, MBNMS and the CPUC for the appropriate means of treating the human remains and any grave goods.</p> <p>If human remains are encountered during construction on Army-owned property, work shall cease within a 100-foot radius of the discovery and the CRM shall be notified immediately. The CRM shall initially evaluate the site to determine if the remains are either Native American in origin or associated with a recent crime scene (i.e. 50 years old or less). If the remains appear recent, the CRM shall notify the Army's Criminal Investigation Command who shall assume control of the crime scene and custody of the remains. If the remains appear to be Native American in origin, the CRM shall notify the Presidio Garrison Commander and implement procedures set forth in Section 3 of the Native American Graves Protection and Repatriation Act.</p>	X	X	X	X	X	X	In the event human remains are found during construction, all work shall stop and the archaeologist will contact either the Monterey County Coroner or the Army CRM for their assessment. If the remains are determined to be Native American, the archaeologist will contact the NAHC for further identification and notification of Native American representatives. CPUC, MBNMS, the U.S. Army, and Native American representatives will monitor the implementation of protocols.	During construction.	Implementing protocols of identification and notification in the event human remains are encountered.
<b>Section 4.16: Agricultural Resources</b>									
<p><b>Impact 4.16-1: Result in changes in the existing environment that, due to their location or nature, could temporarily disrupt agricultural activities or result in the permanent conversion of farmland to non-agricultural use.</b></p> <p><b>Mitigation Measure 4.16-1: Minimize Disturbance to Farmland.</b></p> <p>CalAm and its construction contractor(s) shall incorporate the following measures into construction plans and specifications for all construction activities located in farmland areas to minimize adverse impacts on farmland:</p> <ul style="list-style-type: none"> <li>• CalAm shall notify affected property owners at least 90 days prior to initiating construction activities that have the potential to interfere with agricultural operations.</li> <li>• Construction contractor(s) shall minimize the extent of the construction disturbance, including construction access, in agricultural areas to the maximum extent feasible. Minimization efforts shall include, but not be limited to, consulting with affected property owners to schedule construction activities to minimize impacts during planting, growing, and/or harvest seasons.</li> <li>• During excavation and other earthmoving activities in designated farmland areas, the surface and subsurface soil layers shall be stockpiled separately when trenches are excavated. Segregated topsoil and subsoil shall be maintained and kept separated throughout all construction activities, and these soils shall subsequently be used to backfill excavations and shall be returned to its appropriate location in the soil profile.</li> <li>• To avoid over-compaction of the top layers of soil, soil densities shall be measured prior to the start of construction activities, and surface soil (roughly the upper 3 feet of soil) shall be backfilled to within 5 percent of the original density.</li> <li>• If necessary, following construction activities, the uppermost 3 feet of soil shall be ripped to achieve the appropriate soil density (within 5 percent of the original). Ripping may also be used in areas where vehicle and equipment traffic has compacted the topsoil layers.</li> </ul>			X			X	CalAm shall provide the CPUC with documentation that the required farmland disturbance minimization measures are incorporated into all construction plans and specifications for construction activities located in farmland areas prior to the commencement of construction and provide the CPUC copies of all required notices provided to affected property owners. CPUC and MBNMS will monitor implementation of measures to minimize disturbance to farmlands.	Prior to and during construction.	Implementation of measures to minimize disturbance to farmland.

**TABLE 1 (Continued)  
CALAM MONTEREY PENINSULA WATER SUPPLY PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM**

Impact Mitigation Measure	Applicable Site(s)						Monitoring and Reporting Program		Effectiveness Criteria
	Intake Site	Offshore Brine Discharge Site	Desalination Plant Site	ASR	Carmel Valley Pump Station	Conveyance Pipelines	Monitoring and Reporting Actions: <i>CalAm Reports On, and the CPUC Monitors all Mitigation Measures</i>	Implementation Schedule	
<b>Section 4.16: Agricultural Resources (cont.)</b>									
<ul style="list-style-type: none"> <li>Existing agricultural drainage systems shall be inspected before and after construction to ensure they function as needed.</li> <li>Disturbed areas shall be restored to pre-construction conditions following construction.</li> </ul>									
<b>Impact 4.16-C: Cumulative impacts related to agricultural resources.</b>			X			X	See above under Mitigation Measure 4.16-1		
<b>Mitigation Measure 4.16-1</b>									
<b>Section 4.18: Energy Conservation</b>									
<b>Impact 4.18-1: Use large amounts of fuel and energy in an unnecessary, wasteful, or inefficient manner during construction and decommissioning.</b>	X	X	X	X	X	X	See above under Mitigation Measure 4.10-1b		
<b>Mitigation Measure 4.10-1b</b>									
<b>Impact 4.18-1: Use large amounts of fuel and energy in an unnecessary, wasteful, or inefficient manner during construction and decommissioning.</b>	X	X	X	X	X	X	CalAm shall provide the CPUC with the name and qualifications of the professional who prepared as well as a copy of the required Construction Equipment Efficiency Plan for approval at least 30 days prior to commencement of construction and at least 30 days prior to subsequent decommissioning activities. CPUC and MBNMS will review and approve the plan and monitor its implementation.	Prior to and during construction.	Compliance with all components of the approved Construction Equipment Efficiency Plan to ensure increased energy efficiency during construction and decommissioning.
<b>Mitigation Measure 4.18-1: Construction Equipment and Vehicle Efficiency Plan.</b> CalAm shall contract a qualified professional (i.e., construction planner/energy efficiency expert) to prepare a Construction Equipment Efficiency Plan that identifies the specific measures and performance standards that CalAm (and its construction contractors) will implement as part of project construction and decommissioning to increase the efficient use of construction equipment and vehicles to the maximum extent feasible. Such measures shall include, but not necessarily be limited to: procedures to ensure that all construction equipment is properly tuned and maintained at all times; requirement to provide options for worker carpooling; a commitment to utilize existing electricity sources where feasible rather than portable diesel-powered generators; and identification of procedures (including the routing of haul trips) that will be followed to ensure that all materials and debris hauling is conducted in a fuel-efficient manner. The plan shall be submitted to CPUC and the Sanctuary for review and approval at least 30 days prior to the beginning of construction activities and at least 30 days prior to the beginning of decommissioning activities.									
<b>Impact 4.18-3: Constrain local or regional energy supplies, require additional capacity, or affect peak and base periods of electrical demand during operations.</b>	X	X	X	X	X	X	See above under Mitigation Measure 4.11-1		
<b>Mitigation Measure 4.11-1</b>									
<b>Impact 4.18-C: Cumulative impacts related to energy conservation.</b>	X	X	X	X	X	X	See above under Mitigation Measures 4.10-1b and 4.18-1		
<b>Mitigation Measures 4.10-1b and 4.18-1</b>									
<b>Section 4.20: Socioeconomics and Environmental Justice</b>									
<b>Impact 4.20-1: Reductions in the rate of employment, total income, or business activity in Monterey County.</b>	X	X	X	X	X	X	See above under Mitigation Measure 4.9-1		
<b>Mitigation Measure 4.9-1</b>									
<b>Impact 4.20-2: Disproportionately high and adverse effects on low-income or minority populations.</b>	X	X	X	X	X	X	See above under Mitigation Measures 4.10-1a through 4.10-1e		
<b>Mitigation Measures 4.10-1a through 4.10-1e</b>									
<b>Impact 4.20-C: Cumulative impacts related to socioeconomics and environmental justice.</b>	X	X	X	X	X	X	See above under Mitigation Measures 4.9-1 and 4.10-1a through 4.10-1e		

# Appendix F

## Project-wide Plans and Other Documentation

## F-1 Archaeological Monitoring Plan (Confidential)

This report contains confidential cultural resources location information; report distribution is restricted to those with a need to know. To deter vandalism, artifact hunting, and other activities that can damage cultural resources, the locations of cultural resources should be kept confidential. The legal authority to restrict cultural resources information is in California Government Code Section 6254.1 and the National Historic Preservation Act of 1966, as amended, Section 304.