

APPENDICES TO THE



BIOLOGICAL ASSESSMENT FOR THE U.S. FISH AND WILDLIFE SERVICE PURE WATER MONTEREY GROUNDWATER REPLENISHMENT PROJECT



DECEMBER 16, 2015

REVISED: FEBRUARY 12, 2016

REVISED: MARCH 2, 2016

Project Proponents:

Monterey Regional Water Pollution Control Agency
in partnership with
Monterey Peninsula Water Management District

Prepared by:

Denise Duffy & Associates, Inc.
Environmental Consultants / Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
(831) 373-4341



**Appendix A – U.S. Fish and Wildlife Service IPaC Trust
Resource Report (generated June 11, 2015)**

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U.S. Fish & Wildlife Service

GWR Biological Assessment

IPaC Trust Resource Report

Generated September 02, 2015 10:57 AM MDT



US Fish & Wildlife Service

IPaC Trust Resource Report



Project Description

NAME

GWR Biological Assessment

PROJECT CODE

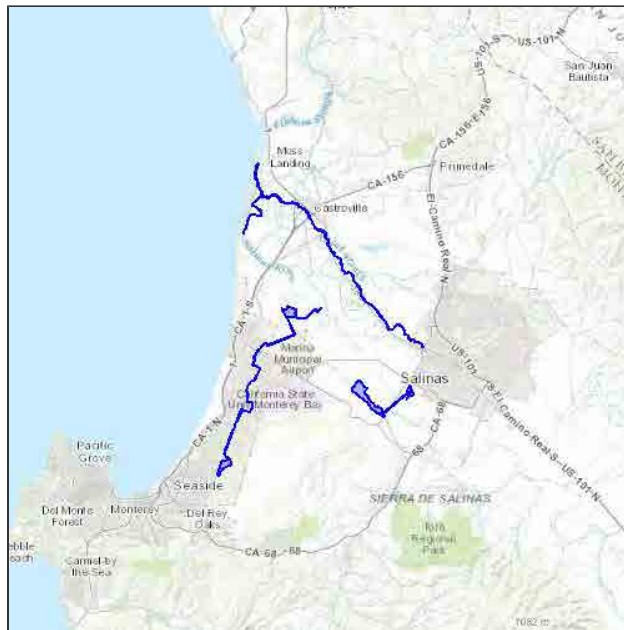
LUYRS-YCAXN-FODA6-43ZOX-77PX7A

LOCATION

Monterey County, California

DESCRIPTION

No description provided



U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

Ventura Fish And Wildlife Office

2493 Portola Road, Suite B

Ventura, CA 93003-7726

(805) 644-1766

Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the [Endangered Species Program](#) and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under [Section 7](#) of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an Official Species List from the regulatory documents section.

Amphibians

California Red-legged Frog *Rana draytonii*

Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=D02D>

California Tiger Salamander *Ambystoma californiense*

Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=D01T>

Santa Cruz Long-toed Salamander *Ambystoma macrodactylum croceum*

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=D000>

Birds

California Clapper Rail *Rallus longirostris obsoletus* **Endangered**

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B04A>

California Condor *Gymnogyps californianus* **Endangered**

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B002>

California Least Tern *Sterna antillarum browni* **Endangered**

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B03X>

Least Bell's Vireo *Vireo bellii pusillus* **Endangered**

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B067>

Marbled Murrelet *Brachyramphus marmoratus* **Threatened**

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B08C>

Southwestern Willow Flycatcher *Empidonax traillii extimus* **Endangered**

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B094>

Western Snowy Plover *Charadrius alexandrinus nivosus* **Threatened**

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B07C>

Crustaceans

Vernal Pool Fairy Shrimp *Branchinecta lynchi* **Threatened**

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=K03G>

Fishes

Tidewater Goby *Eucyclogobius newberryi* **Endangered**
 CRITICAL HABITAT
 There is **final** critical habitat designated for this species.
<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E071>

Flowering Plants

Clover Lupine *Lupinus tidestromii* **Endangered**
 CRITICAL HABITAT
 No **critical habitat** has been designated for this species.
<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q2DD>

Contra Costa Goldfields *Lasthenia conjugens* **Endangered**
 CRITICAL HABITAT
 There is **final** critical habitat designated for this species.
<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q122>

Marsh Sandwort *Arenaria paludicola* **Endangered**
 CRITICAL HABITAT
 No **critical habitat** has been designated for this species.
<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q25H>

Menzies' Wallflower *Erysimum menziesii* **Endangered**
 CRITICAL HABITAT
 No **critical habitat** has been designated for this species.
<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q29W>

Monterey Gilia *Gilia tenuiflora* ssp. *arenaria* **Endangered**
 CRITICAL HABITAT
 No **critical habitat** has been designated for this species.
<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q2AJ>

Monterey Spineflower *Chorizanthe pungens* var. *pungens* **Threatened**
 CRITICAL HABITAT
 There is **final** critical habitat designated for this species.
<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q271>

Santa Cruz Tarplant *Holocarpha macradenia* **Threatened**
 CRITICAL HABITAT
 There is **final** critical habitat designated for this species.
<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q0ZL>

Yadon's Piperia *Piperia yadonii* **Endangered**
 CRITICAL HABITAT
 There is **final** critical habitat designated for this species.
<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q3FA>

Insects

Smith's Blue Butterfly *Euphilotes enoptes smithi*

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=I00R>

Mammals

Southern Sea Otter *Enhydra lutris nereis*

Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0A7>

Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

Monterey Spineflower Critical Habitat Final designated

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q271#crithab>

Steelhead Critical Habitat Final designated

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E08D#crithab>

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

Allen's Hummingbird <i>Selasphorus sasin</i> Season: Breeding	Bird of conservation concern
Ashy Storm-petrel <i>Oceanodroma homochroa</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0AV	Bird of conservation concern
Bald Eagle <i>Haliaeetus leucocephalus</i> Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008	Bird of conservation concern
Black Oystercatcher <i>Haematopus bachmani</i> Year-round	Bird of conservation concern
Black Swift <i>Cypseloides niger</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FW	Bird of conservation concern
Black-vented Shearwater <i>Puffinus opisthomelas</i> Season: Wintering	Bird of conservation concern
Burrowing Owl <i>Athene cunicularia</i> Year-round	Bird of conservation concern
Cassin's Auklet <i>Ptychoramphus aleuticus</i> Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FP	Bird of conservation concern
Costa's Hummingbird <i>Calypte costae</i> Season: Breeding	Bird of conservation concern
Flammulated Owl <i>Otus flammeolus</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DK	Bird of conservation concern
Fox Sparrow <i>Passerella iliaca</i> Season: Wintering	Bird of conservation concern
Lawrence's Goldfinch <i>Carduelis lawrencei</i> Season: Breeding	Bird of conservation concern
Lesser Yellowlegs <i>Tringa flavipes</i> Season: Wintering	Bird of conservation concern
Lewis's Woodpecker <i>Melanerpes lewis</i> Season: Wintering	Bird of conservation concern

Loggerhead Shrike <i>Lanius ludovicianus</i> Season: Wintering https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FY	Bird of conservation concern
Long-billed Curlew <i>Numenius americanus</i> Season: Wintering https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06S	Bird of conservation concern
Marbled Godwit <i>Limosa fedoa</i> Season: Wintering	Bird of conservation concern
Nuttall's Woodpecker <i>Picoides nuttallii</i> Year-round	Bird of conservation concern
Oak Titmouse <i>Baeolophus inornatus</i> Year-round	Bird of conservation concern
Olive-sided Flycatcher <i>Contopus cooperi</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0AN	Bird of conservation concern
Peregrine Falcon <i>Falco peregrinus</i> Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU	Bird of conservation concern
Pink-footed Shearwater <i>Puffinus creatopus</i> Year-round	Bird of conservation concern
Short-billed Dowitcher <i>Limnodromus griseus</i> Season: Wintering	Bird of conservation concern
Short-eared Owl <i>Asio flammeus</i> Season: Wintering https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD	Bird of conservation concern
Tricolored Blackbird <i>Agelaius tricolor</i> Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06P	Bird of conservation concern
Whimbrel <i>Numenius phaeopus</i> Season: Wintering	Bird of conservation concern
Yellow Warbler <i>dendroica petechia ssp. brewsteri</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0EN	Bird of conservation concern
Red Knot <i>Calidris canutus ssp. roselaari</i> Season: Wintering https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0G6	Bird of conservation concern

Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetland data is unavailable at this time.

Appendix B – Official List of Threatened or Endangered
Species (generated November 11, 2015)

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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ventura Fish and Wildlife Office
2493 PORTOLA ROAD, SUITE B
VENTURA, CA 93003
PHONE: (805)644-1766 FAX: (805)644-3958

Consultation Code: 08EVEN00-2016-SLI-0062

November 11, 2015

Event Code: 08EVEN00-2016-E-00128

Project Name: Pure Water Monterey Groundwater Replenishment Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed list identifies species listed as threatened and endangered, species proposed for listing as threatened or endangered, designated and proposed critical habitat, and species that are candidates for listing that may occur within the boundary of the area you have indicated using the U.S. Fish and Wildlife Service's (Service) Information Planning and Conservation System (IPaC). The species list fulfills the requirements under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the species list should be verified after 90 days. We recommend that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists following the same process you used to receive the enclosed list. Please include the Consultation Tracking Number in the header of this letter with any correspondence about the species list.

Due to staff shortages and excessive workload, we are unable to provide an official list more specific to your area. Numerous other sources of information are available for you to narrow the list to the habitats and conditions of the site in which you are interested. For example, we recommend conducting a biological site assessment or surveys for plants and animals that could help refine the list.

If a Federal agency is involved in the project, that agency has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a major construction project*, the Federal agency has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Federal agency determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve

conflicts with respect to threatened or endangered species or their critical habitat prior to a written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

[*A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.]

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Pure Water Monterey Groundwater Replenishment Project

Official Species List

Provided by:

Ventura Fish and Wildlife Office
2493 PORTOLA ROAD, SUITE B
VENTURA, CA 93003
(805) 644-1766

Consultation Code: 08EVEN00-2016-SLI-0062

Event Code: 08EVEN00-2016-E-00128

Project Type: WATER SUPPLY / DELIVERY

Project Name: Pure Water Monterey Groundwater Replenishment Project

Project Description: The Pure Water Monterey Groundwater Replenishment Project is a water supply project that will serve northern Monterey County. The project will provide purified recycled water for recharge of a groundwater basin that serves as drinking water supply, and recycled water to augment the existing Castroville Seawater Intrusion Project's crop irrigation supply. The project is jointly sponsored by the Monterey Regional Water Pollution Control Agency (MRWPCA) and the Monterey Peninsula Water Management

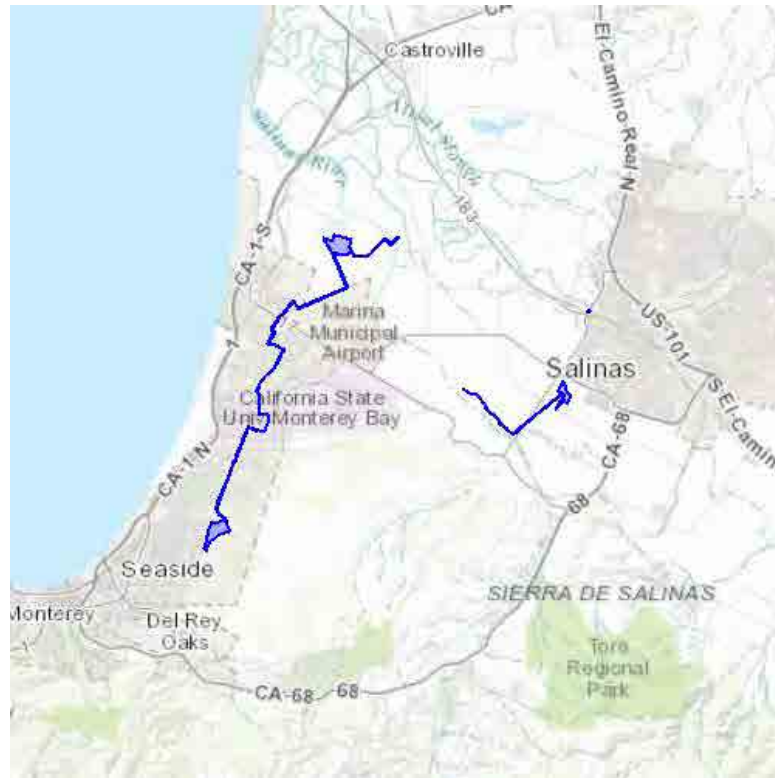
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: Pure Water Monterey Groundwater Replenishment Project

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Monterey, CA



United States Department of Interior
Fish and Wildlife Service

Project name: Pure Water Monterey Groundwater Replenishment Project

Endangered Species Act Species List

There are a total of 20 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	Status	Has Critical Habitat	Condition(s)
California red-legged frog (<i>Rana draytonii</i>) Population: Entire	Threatened	Final designated	
California tiger Salamander (<i>Ambystoma californiense</i>) Population: U.S.A. (Central CA DPS)	Threatened	Final designated	
Santa Cruz Long-Toed salamander (<i>Ambystoma macrodactylum croceum</i>) Population: Entire	Endangered		
Birds			
California Least tern (<i>Sterna antillarum browni</i>)	Endangered		
California condor (<i>Gymnogyps californianus</i>) Population: Entire, except where listed as an experimental population	Endangered	Final designated	
Least Bell's vireo (<i>Vireo bellii pusillus</i>) Population: Entire	Endangered	Final designated	



United States Department of Interior
Fish and Wildlife Service

Project name: Pure Water Monterey Groundwater Replenishment Project

Marbled murrelet (<i>Brachyramphus marmoratus</i>) Population: CA, OR, WA	Threatened	Final designated	
Southwestern Willow flycatcher (<i>Empidonax traillii extimus</i>) Population: Entire	Endangered	Final designated	
western snowy plover (<i>Charadrius nivosus ssp. nivosus</i>) Population: Pacific coastal pop.	Threatened	Final designated	
Crustaceans			
Vernal Pool fairy shrimp (<i>Branchinecta lynchi</i>) Population: Entire	Threatened	Final designated	
Fishes			
Tidewater goby (<i>Eucyclogobius newberryi</i>) Population: Entire	Endangered	Final designated	
Flowering Plants			
Clover lupine (<i>Lupinus tidestromii</i>)	Endangered		
Contra Costa goldfields (<i>Lasthenia conjugens</i>)	Endangered	Final designated	
Marsh Sandwort (<i>Arenaria paludicola</i>)	Endangered		
Menzies' wallflower (<i>Erysimum menziesii</i>)	Endangered		
Monterey gilia (<i>Gilia tenuiflora ssp. arenaria</i>)	Endangered		



United States Department of Interior
Fish and Wildlife Service

Project name: Pure Water Monterey Groundwater Replenishment Project

Monterey spineflower (<i>Chorizanthe pungens</i> var. <i>pungens</i>)	Threatened	Final designated	
Yadon's piperia (<i>Piperia yadonii</i>)	Endangered	Final designated	
Insects			
Smith's Blue butterfly (<i>Euphilotes enoptes smithi</i>) Population: Entire	Endangered		
Mammals			
Southern Sea otter (<i>Enhydra lutris nereis</i>)	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Pure Water Monterey Groundwater Replenishment Project

Critical habitats that lie within your project area

The following critical habitats lie fully or partially within your project area.

Flowering Plants	Critical Habitat Type
Monterey spineflower (<i>Chorizanthe pungens</i> var. <i>pungens</i>)	Final designated

Appendix C – Detailed Site Photographs

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Figure 1. Blanco Drain at diversion site looking northeast towards Nashua Road

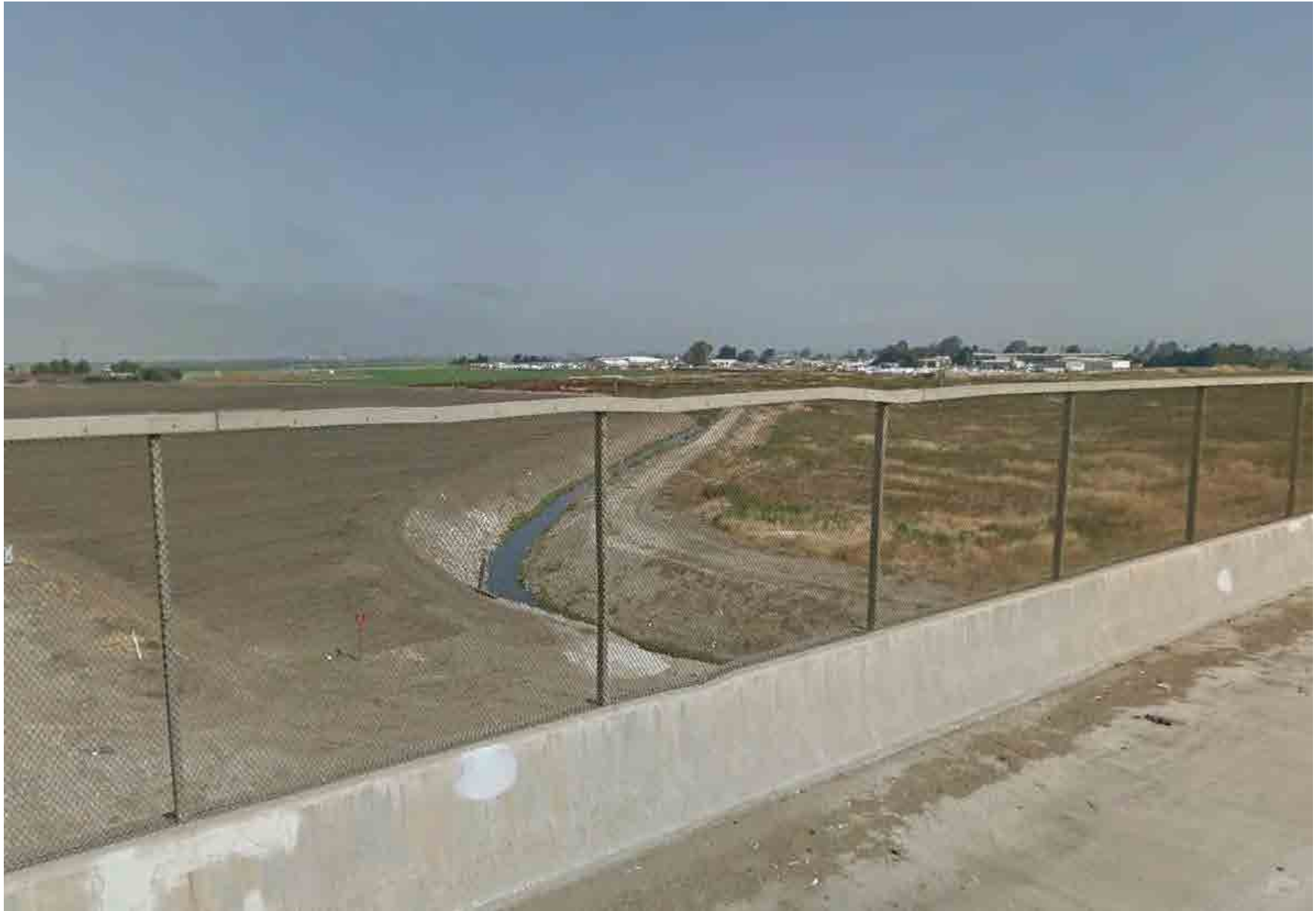


Figure 2. Reclamation Ditch diversion site from Davis Road overpass looking west



Figure 3. Salinas Treatment Facility entrance from Davis Road looking west



Figure 4. Advanced Water Treatments Facility site from parking lot looking northwest



Figure 5. Booster Pump Station Site from Inter-Garrison Road looking north



Figure 6. Injection Well Facility site from General Jim Moore Road looking northeast

Appendix D – Cumulative Projects

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Projects Considered for Cumulative Analysis (listed by primary geographic area in which project is located)

Cumulative Project No.	Project Name (Proponent or Proponent and Lead Agency)*	Project Description	Areas of Overlap (Potentially Affected Project Components)	Estimated Construction Schedule	Project Location / Approximate Distance to nearest GWR Project Component
Monterey County					
1	CalAm Monterey Peninsula Water Supply Project (with Smaller 6.4 mgd Desalination Plant) (CalAm/CPUC*)	See description in Section 4.1.3.2.	Geographic scope, location, and timing (Treatment Facilities, Product Water Conveyance System (RUWAP and Coastal Alignments) Product Water Booster Pump Station (RUWAP) Injection Well Facilities CalAm Distribution System Improvements)	2017-2019	The CalAm desalination plant site would be located ½ mile northwest of the existing RTP (the site of the proposed GWR advanced treatment facilities and Salinas Valley Reclamation Plant improvements) The CalAm proposed subsurface slant wells at CEMEX would be located 2 miles west and/or northwest of the RTP; CalAm pipeline alignments and other CalAm facilities would be located throughout the Proposed Project area within less than ¼ mile in some locations. The Proposed Project and the CalAm Monterey Peninsula Water Supply Project would share the same ocean outfall.
2	Salinas Valley Water Project Phase 2 (Monterey County Water Resources Agency*)	<p>The Salinas Valley Water Project Phase 2 would allow MCWRA to facilitate further offsets of groundwater pumping by delivering additional surface water to the Pressure and East Side subareas. The project would divert up to 135,000 acre-feet per year of water from the Salinas River for municipal, industrial, and/or agricultural uses in the Pressure and East Side subareas. Continued alleviation of groundwater pumping through use of the diverted surface water would help address seawater intrusion in Monterey County.</p> <p>The project proposes two surface water diversion points and their appurtenant facilities for capture, conveyance, and delivery of the water. The capture and diversion facilities would consist of either a surface water diversion facility, similar to the Salinas River Diversion Facility, or subsurface collectors, such as radial arm wells, which has not been determined. The conveyance facilities would be composed of pipelines and pump stations. The pipeline diameter, length, destination, number and location of turnouts, locations of pump stations, and physical layout of the conveyance facilities have not been determined.</p> <p>The delivery facilities may consist of injection wells for aquifer storage and recovery (ASR), percolation ponds, turnouts for direct use of the water, or other options. The construction design</p>	Similar environmental impacts, geographic scope & location (Treatment Facilities, Product Water Conveyance System)	Construction not likely to coincide with Proposed Project. Schedule shows: Draft EIR (2015); project operation (2026)	The project would be located in Monterey County within the Salinas Valley and includes two surface water diversion points, one located near the City of Soledad (26 miles from the Salinas Pump Station) and the other located south of the City of Salinas (5-1/2 miles from the Salinas Pump Station). Each diversion point would be accompanied by conveyance and delivery facilities, the locations and termini of which have not been determined.

Projects Considered for Cumulative Analysis (listed by primary geographic area in which project is located)

Cumulative Project No.	Project Name (Proponent or Proponent and Lead Agency)*	Project Description	Areas of Overlap (Potentially Affected Project Components)	Estimated Construction Schedule	Project Location / Approximate Distance to nearest GWR Project Component
		and physical location of the delivery facilities will be influenced by the type of facility, the end-user's intended application of the water (agricultural versus urban), and need for water treatment. The project design will be identified after further feasibility and environmental review. (MCWRA, 2014a)			
3	East Garrison Specific Plan (UCP, Inc.)	Mixed-use development project comprised of residential, commercial, office, institutional, and recreational uses on approximately 244 acres. The project includes the construction of up to 1,470 dwelling units, 75,000 square feet of commercial uses, 11,000 square feet of public and institutional uses, 100,000 square feet of art/cultural/educational uses, and approximately 50 acres of open space. Development under the Specific Plan will be implemented in three phases. Phase I infrastructure has been completed. At end of 2013, construction of Manzanita Place Apartments (64 units) was nearing completion and 37 building permits for single family homes had been issued and were under construction. (Michael Brandman Associates, 2005, FORA, 2014, Monterey County Planning Department, 2013).	Geographic scope and location (Salinas Pump Station, Salinas Treatment Facility Source Water Diversion and Storage Site, Treatment Facilities)	Under construction in 2014 - 2020	Former Fort Ord Military Base, East Garrison Area. Approximately ½ mile southwest of the Salinas Treatment Facility.
4	DeepWater Desal (Deep Water Desal, Inc.)	Construction of a 15-mgd seawater desalination facility located on a 110-acre site in Moss Landing, on Dolan Road, approximately 1,500 feet east of the Moss Landing Power Plant. This project would serve the City of Salinas (Monterey County Planning Department, 2013).	Geographic scope and location (Product Water Pipelines), similar environmental impacts	Beyond 2017	Primary facilities in Moss landing area is approximately 2-1/2 miles northwest from the Tembladero Slough Diversion Site. Pipelines may be located within vicinity of the Proposed Project.
5	Interlake Tunnel (Monterey County Water Resources Agency)	The approximately 11,000-foot gravity-flow tunnel would move water from Lake Nacimiento to Lake San Antonio that would have otherwise been spilled at Nacimiento Dam (MCWRA, 2014b).	Additive beneficial impacts on the Salinas Valley Groundwater Basin water levels and seawater intrusion	Beyond 2020	74 miles southeast of the Salinas Pump Station.
6	Harper Canyon (Harper Canyon Realty LLC)	The project consists of subdivision of 344 acres into 17 residential lots ranging in size from 5.13 acres to 23.42 acres on 164 acres and one 180-acre remainder parcel	Geographic scope and location (Salinas Pump Station, Salinas Treatment Facility Source Water	Approved	South of State Highway 68, Near intersection of Harper Canyon and San Benancio Road and about 3.5 miles from the Salinas Pump Station

Projects Considered for Cumulative Analysis (listed by primary geographic area in which project is located)

Cumulative Project No.	Project Name (Proponent or Proponent and Lead Agency)*	Project Description	Areas of Overlap (Potentially Affected Project Components)	Estimated Construction Schedule	Project Location / Approximate Distance to nearest GWR Project Component
			Diversion and Storage Site, Treatment Facilities)		
7	Corral De Tierra Road (Omni Enterprises, LLC)	Development of a new 100,000-square-foot shopping center that includes retail and office space (Monterey County Planning Department, 2014).	Geographic scope and location (Salinas Pump Station, Salinas Treatment Facility Source Water Diversion and Storage Site, Treatment Facilities)	Approved	Highway 68 over six miles from the Salinas Pump Station
8	Ferrini Ranch Subdivision (Bollenbacher & Kelton, Inc.)	Subdivision of an approximately 866-acre property into 185 residential lots, including 17 inclusionary units; 28,500 square feet commercial/winery, parcel fronting on River Road, and 700 acres of open space (Monterey County Planning Department, 2014).	Geographic scope and location (Salinas Pump Station, Salinas Treatment Facility Source Water Diversion and Storage Site, Treatment Facilities)	Approved	South side of State Highway 68, between River Road and San Benancio Road and about 3 miles from the Salinas Pump Station
City of Sand City					
9	Monterey Bay Shores Resort (SNG Development Company)	A 341-unit "eco-resort" on 39 acres approved. Proposal calls for 161 hotel rooms, 180 condominiums, a restaurant, conference center, spa and three swimming pools.	Geographic scope and location (Product Water Conveyance - either alignment)	Project approved. Construction start date unknown.	Former Sand Mine site, near the Fremont / Highway 1 interchange about 1-1/2 miles west of the Proposed Project Product Water Conveyance (either alignment)
City of Marina					
10	The Dunes on Monterey Bay (Marina Community Partners)	Mixed-use development project comprised of an additional 1,237 residential units, 500 hotel rooms, and retail and office space on 297 acres. Phase 1 (378,000 sf Retail Center) built in 2007-08. Projects currently underway include the following: (1) South County Housing to develop and build 108 low and very low income affordable apartments to be completed by spring/summer 2014, (2) Cinemark multiple screen movie theater planned to be constructed by summer 2014, (3) Plans approved for two approximately 15,000 sf retail buildings to be built near the proposed movie theater, (4) Veterans Affairs Monterey Health Care Center located on a 14.31 acre project site within the Dunes on Monterey Bay Specific Plan area.	Geographic scope and location (Product Water Conveyance – RUWAP Alignment) and timing of construction	Ongoing construction/full buildout scheduled for 2020	Former Fort Ord Military Base, Highway 1 / Imjin Parkway immediately adjacent to construction activities for the Proposed Project's proposed RUWAP product water conveyance alignment.

Projects Considered for Cumulative Analysis (listed by primary geographic area in which project is located)

Cumulative Project No.	Project Name (Proponent or Proponent and Lead Agency)*	Project Description	Areas of Overlap (Potentially Affected Project Components)	Estimated Construction Schedule	Project Location / Approximate Distance to nearest GWR Project Component
		(FORA, 2014).			
11	Marina Airport (City of Marina)	Marina Airport Economic Development Area – Airport development project aimed at promoting growth of the airport. Individual projects include: <ul style="list-style-type: none"> • Airfield Electrical System Upgrades • Runway Rehabilitation and Extension • Taxiway Rehabilitation and Extension • Airfield NAVAIDS Improvements (City of Marina, 2014). 	Geographic scope and location (Product Water Conveyance – RUWAP Alignment)	Approved 2009–2013	Marina Municipal Airport located on the east side of the City of Marina; The proposed Product Water Conveyance – RUWAP Alignment is about ½ mile from the airport.
12	Marina Station: Armstrong Ranch	Development project comprised of 1,360 residential units, approximately 60,000 square feet of retail space, 144,000 square feet of office space, and 652,000 square feet of business park/industrial uses (City of Marina, 2014).	Geographic scope and location (Product Water Conveyance – RUWAP and Coastal alignment options)	Unknown; Approved	The proposed Product Water Conveyance pipeline alignments (both the RUWAP and Coastal options) would pass immediately adjacent to or through the proposed site. Site plans for the previous proposed development at this site accommodated water supply pipelines such as those proposed and evaluated in this EIR.
13	Rockrose Gardens (Interim, Inc.)	Affordable housing for people with disabilities, 20 units of permanent supportive housing for people with psychiatric disabilities. (FORA, 2014)	Geographic scope and location (Product Water Conveyance – RUWAP Alignment)	Approved, construction completed Fall 2014	Former Fort Ord Military Base, Lexington Court in the city of Marina; less than 1 mile from construction activities for the Proposed Project's RUWAP Product Water Conveyance alignment.
14	Cypress Knolls Senior Residential Project	Senior residential community with active-adult housing, care services, senior community center, and supportive amenities and services on 188 acres (City of Marina, 2014).	Geographic scope and location (Product Water either alignment)	Unknown, Approved but Construction Suspended	On the northern side of the CSUMB campus in the city of Marina; immediately adjacent to construction activities for both Proposed Project Product Water Conveyance alignments.
15	Marina Heights	Removal of 828 abandoned residential units and replacement with a combination of 1,050 new townhouse, cottage, and single-family residential units. The project also includes 35 acres of parks, greenbelts, and open space (City of Marina, 2014).	Geographic scope and location (Product Water Conveyance – either alignment)	Unknown, Approved	On the northern side of the CSUMB campus in the city of Marina; immediately adjacent to construction activities for both Proposed Project Product Water Conveyance alignments.
16	North Campus Housing Master Plan (CSUMB*)	Includes 583 student housing units, leasing office, community center on 8-acres (more recently known as the Promontory Housing Project) (FORA, 2014).	Geographic scope and location (Product Water Conveyance- either alignment)	2015	On the northern side of the CSUMB campus in the city of Marina; immediately adjacent to construction activities for both Proposed Project Product Water Conveyance alignments.
17	ITCD Academic Building (CSUMB*)	New 58,000 square foot Information Technology and Communications Design (ITCD) and the School of Business academic building. (FORA, 2014)	Geographic scope and location (Product Water Conveyance, either alignment)	Unknown	Immediately west of the Tanimura and Antle Family Memorial Library on Divarty Street, less than ¼ mile from both Proposed Project Product Water Conveyance alignments.
18	Regional Urban Water Augmentation Project –	Construction of a 1,500-acre-foot-per-year desalination plant at the Marina Coast Water District Armstrong Ranch property, north of the city of Marina in Monterey County. The RUWAP	Similar environmental impacts, geographic scope and location (Product Water	Unknown	Armstrong Ranch property, immediately adjacent to the RUWAP Product Water Conveyance alignment.

Projects Considered for Cumulative Analysis (listed by primary geographic area in which project is located)

Cumulative Project No.	Project Name (Proponent or Proponent and Lead Agency)*	Project Description	Areas of Overlap (Potentially Affected Project Components)	Estimated Construction Schedule	Project Location / Approximate Distance to nearest GWR Project Component
	Desalination (Marina Coast Water District*)	project would extract seawater and potentially brackish water, produce desalinated water, and convey it to the existing District distribution systems (Marina Coast Water District, 2012).	Conveyance- RUWAP Alignment)		
19	Regional Urban Water Augmentation Project – Recycled Water (Marina Coast Water District*)	The Recycled Water Alternative proposed to supply 1,500 AFY of recycled water for the Marina Coast Water District. This alternative also includes the following facility components: a new distribution system, and new operational storage tanks and associated pumps (Marina Coast Water District, 2012).	Similar environmental impacts, geographic scope and location (Product Water Conveyance- RUWAP Alignment; Treatment Facilities at Regional Treatment Plant)	Unknown	This project would include facilities at the Regional Treatment Plant, plus facilities immediately south of the plant, pipelines, and pumps through Marina and the former Fort Ord. This project includes the same or similarly located product water pipeline alignment as the RUWAP and some proposed facilities for both this project and the Proposed Project would be located at the Regional Treatment Plant.
20	Slant Test Well Project (California American Water Company)	Construction of a temporary test well for collection of data regarding geology, hydrology, and water quality. The test well would extend diagonally under the floor of the Pacific Ocean through the Dune Sand Aquifer, Salinas Valley Aquitard (if present), and the 180-Foot Aquifer. The facility would operate for a period of up to 24 months (City of Marina, 2014).	No overlapping construction or operations	Approved; Complete in 2015	Cemex Sand Mining Facility, Lapis Road, west of Highway 1 and about 1 mile northwest of the Coastal alignment product water conveyance. The test well is proposed to become one of the permanent wells for Project #1 (MPWSP) if it operates successfully.
City of Seaside					
21	West Broadway Urban Village Specific Plan (City of Seaside*)	Mixed-use, transit-oriented development comprised of residential with ground-floor retail and commercial uses along Broadway Avenue, with supporting future transit-oriented development along the west side of Del Monte Boulevard. Includes a public library and parking structure on Broadway Boulevard and a hotel/conference center mixed-use development at the southeast corner of Canyon Del Rey and Del Monte Boulevards. Broadway infrastructure and street improvements to be completed near term. (City of Seaside, 2013b).	Geographic scope and location (CalAm Distribution System pipelines)	Ongoing construction due to redevelopment plans	West of Fremont Boulevard, along Broadway Avenue, Del Monte Boulevard, and Canyon Del Rey Boulevard, within less than ¼ of the CalAm distribution pipeline (Transfer).
22	Seaside Resort (Seaside Resort Development, LLC)	The first phase, completed in 2009, involved upgrades to the Bayonet and Black Horse Golf Courses. The next phase of development features a four-star hotel with approximately 275 hotel rooms, 175 timeshare units, and 125 residential units (City of Seaside, 2013c).	Geographic scope and location (Product Water Conveyance-either alignment; Injection Well Facilities)	Stage 1 2017-2018	Former Fort Ord Military Base, Monterey Road at Coe Avenue / immediately adjacent to both of the Proposed Project Product Water Conveyance alignments and approx. ½ mile north of the Proposed Project Injection Well Facilities.
23	90-Inch Bay Avenue Outfall Phase 1 (City of Seaside*)	Improvement project to 1) Install a discharge valve at the outfall discharge; 2) Annual maintenance and manual breaching of the sand bar to allow gravity flow through the culvert (requires Coastal Permit); 3) Create an	Similar environmental impacts, geographic scope and location (CalAm Distribution System pipelines)	Unknown	Redwood Avenue and John Street in the City of Sand City, located within ¼ mile of the CalAm distribution pipelines (specifically, the CalAm Monterey Pipeline).

Projects Considered for Cumulative Analysis (listed by primary geographic area in which project is located)

Cumulative Project No.	Project Name (Proponent or Proponent and Lead Agency)*	Project Description	Areas of Overlap (Potentially Affected Project Components)	Estimated Construction Schedule	Project Location / Approximate Distance to nearest GWR Project Component
		infiltration basin at John Street and Redwood Avenue to mitigate flooding in this area; 4) Reconstruct the existing elevated emergency outlet structure, including doubling the size of the box to increase the width of the emergency outlet structure; and 5) Construct a curbed channel along the top of the existing 90-inch diameter culvert from the emergency out let to the check valve			
24	Monterey Downs and Horse Park and Central Coast Veteran's Cemetery Specific Plan (City of Seaside*)	The Specific Plan would include a 225,000-square-foot horse training facility comprised of a track and stabling area, ancillary buildings, and a 6,500-seat sports arena and grandstand; a 330,000-square-foot commercial center; a 15,000-square-foot horse park with a visitors center, office space, veterinary clinic, and horse stables; two affordable extended-stay hotels with a total of 256 units; 1,280 residential units ranging from apartments to single-family residential homes; a 100,000-square-foot office park; a 200-room (100,000-square-foot) hotel; a 5,000-square-foot tennis and swim club; a 73-acre habitat preservation area; and 74 acres dedicated to open space and parks and infrastructure. The Central Coast Veterans Cemetery component of the Specific Plan project includes 13,838 burial sites for 20 years of interments, an administration building, a maintenance yard and building, memorial areas, veterans' hall, cultural history museum, chapel, and a 300-seat amphitheater for special events. An adjacent 45.9-acre parcel is proposed as a habitat restoration area (City of Seaside, 2013a).	Geographic scope and location (Product Water Conveyance- RUWAP Alignment; and Injection Well Facilities)	Unknown; Draft EIR released March 2015	Former Fort Ord Military Base East of General Jim Moore Boulevard, south of Inter-Garrison Road and north of Eucalyptus Road over 1 mile east of the RUWAP alignment for the Product Water Conveyance.
25	Del Monte Blvd Dry Weather Diversion (City of Seaside*)	An existing 90-inch diameter storm drain pipe conveys water from approximately 2,000 acres within the City of Seaside to an outfall at Monterey Bay. The existing water quality is poor due to urban water impacts. The project consists of construction of a Dry Weather Storm Water diversion at Del Monte Boulevard to the sanitary sewer system. Diverted water would be treated by the regional treatment plant and reused for existing non-potable and potential future potable uses.	Similar environmental impacts, geographic scope and location (CalAm Distribution System pipelines)	2015	Broadway Avenue between Del Monte Boulevard and Fremont Boulevard and at Del Monte Boulevard, less than ¼ mile from the CalAm Transfer and Monterey Pipelines.
26	West Broadway	The project consists of construction of a storm	Similar environmental	Unknown	Broadway Avenue between Del Monte Boulevard

Projects Considered for Cumulative Analysis (listed by primary geographic area in which project is located)

Cumulative Project No.	Project Name (Proponent or Proponent and Lead Agency)*	Project Description	Areas of Overlap (Potentially Affected Project Components)	Estimated Construction Schedule	Project Location / Approximate Distance to nearest GWR Project Component
	Stormwater Retention (City of Seaside*)	water treatment and diversion system in Broadway Avenue between Del Monte Boulevard and Fremont Boulevard and at Del Monte Boulevard. Treated water would be diverted to retention structures for groundwater recharge.	impacts, geographic scope and location (CalAm Distribution System pipelines)		and Fremont Boulevard, and Del Monte Boulevard between Broadway Avenue and Contra Costa Street; within ¼ of the CalAm Distribution System Transfer and Monterey Pipelines.
27	Seaside Groundwater Basin Aquifer Storage and Recovery Phase 1 (Monterey Peninsula Water Management District*)	Water supply project comprised of two injection/extraction wells, a backwash percolation basin, a chemical/electrical building, and conveyance pipelines. During high-flow periods in the Carmel River, river water is injected into Seaside Groundwater Basin, then extracted during dry periods or periods of high demand (MPWMD, 2005).	Similar environmental impacts, geographic scope and location (Injection Well Facilities Site)	Construction completed in 2008	General Jim Moore Boulevard and Eucalyptus Boulevard, primary physical facilities located ¼ mile from the Proposed Project Injection Well Facilities.
28	Seaside Groundwater Basin Aquifer Storage and Recovery Phase 2 (Monterey Peninsula Water Management District*)	This phase includes two injection/extraction wells and appurtenant facilities (MPWMD, 2013).	Similar environmental impacts, geographic scope and location (Product Water Conveyance, Injection Facilities)	Construction completed in 2014	Seaside Middle School General Jim Moore Boulevard at Coe Avenue. This project's physical facilities are located immediately adjacent to the Proposed Project Product Water Conveyance pipeline and ¼ northwest of the Proposed Project's Injection Well Facilities.
29	Dredge Laguna Grande and Roberts Lake (City of Seaside*)	Create additional storage capacity, visitor serving amenities, and habitat enhancements at Laguna Grande and Roberts Lake. The additional storage capacity could act as a reservoir for diversion of stormwater to the proposed GWR project. Conjunctive use of water from Roberts Lake could be a viable alternative to breaching the sand bar to avoid flooding.	Similar environmental impacts, geographic scope and location (CalAm Distribution System pipelines)	Unknown	Near the intersection of Highway 218 (aka Canyon Del Rey Boulevard) and Del Monte Boulevard, immediately adjacent to the proposed CalAm Distribution System: Monterey Pipeline.
City of Monterey					
30	459 Alvarado Street	Development of 36 residential units and 12,000 square feet of commercial uses (City of Monterey, 2014).	CalAm Distribution Pipelines-Monterey Pipeline	Approved; Under Construction	Within ¼ mile of the CalAm Distribution System Monterey Pipeline Alignment in Old Town Monterey.
31	480 Cannery Row	Ocean View Plaza – Mixed-use development project comprised of 87,362 square feet of commercial space, 30,000 square feet of restaurant space, 8,408 square feet of coastal/community use, 38 market-rate	CalAm Distribution System-Monterey Pipeline	Unknown	Located approximately 1 mile north of the western terminus of the CalAm Distribution System Monterey Pipeline.

Projects Considered for Cumulative Analysis (listed by primary geographic area in which project is located)

Cumulative Project No.	Project Name (Proponent or Proponent and Lead Agency)*	Project Description	Areas of Overlap (Potentially Affected Project Components)	Estimated Construction Schedule	Project Location / Approximate Distance to nearest GWR Project Component
		condominiums, and 13 inclusionary housing units (City of Monterey, 2014).			
City of Pacific Grove					
32	Local Water Project (City of Pacific Grove*)	Construction of a new local satellite recycled water treatment plant at the former Point Pinos Wastewater Treatment Plant to treat Pacific Grove wastewater and deliver recycled water to irrigation sites in the city (CPUC, 2012a).	Similar environmental impacts, timing and duration of implementation; similar project objectives	2015 - 2016	Sunset Drive adjacent to Pacific Grove Golf Links, approximately 5 miles west of the CalAm Distribution System Monterey Pipeline.
33	Monterey-Pacific Grove Area of Special Biological Significance (ASBS) Stormwater Management Project (Cities of Monterey and Pacific Grove*)	Divert stormwater from the Greenwood Park and Congress Storm Drain Watersheds to the David Avenue Reservoir site, provide treatment, and deliver recycled water to irrigation sites throughout the city. Facilities include a 15-million-gallon storage reservoir and 8,800 lineal feet of recycled water distribution pipeline (CPUC, 2012a). The primary purpose of the project is to improve stormwater quality prior to being discharged into the ASBS, in accordance with State Water Resources Control Board (SWRCB) standards. A secondary project purpose is to provide stormwater as a source of non-potable recycled water supply for local irrigation.	Similar environmental impacts	2018 -2020	Citywide – David Avenue Reservoir, Pine Avenue, Ocean View Blvd, former wastewater treatment plant site, 1 mile north of the CalAm Distribution System Monterey Pipeline.
City of Salinas					
34	City of Salinas Solar Project	The project would build 17.9 acres of photovoltaic solar panels at the Salinas Treatment Facility Diversion and Storage site. 12.3 acres of those panels and their corresponding power would be leased to MRWPCA for use at the Salinas Pump Station for diversion and pumping of agricultural wash water and southwestern storm water along with sewage.	Geographic scope and location; timing and duration of implementation (Salinas Treatment Facility Diversion and Storage Site)	Start in 2015 and complete in 2016	Adjacent to the Proposed Project facilities at the Salinas Treatment Facility Diversion and Storage site
Other Projects					
35	Fort Ord Dunes State Park Campground (California State Parks*)	The project proposes construction and operation of a campground facility and associated infrastructure within Fort Ord Dunes State Park, including 45 RV sites and two host sites, 10 hike/bike sites, and 43 tent sites; parking; restrooms and showers; a multi-purpose building; outdoor campfire center, interpretation/viewing areas; renovation of existing bunkers; an entrance station near the 1st Street underpass; modular structures; storage yard and maintenance shop; improved beach	Geographic scope and location; timing and duration of implementation (Product Water Conveyance – Coastal Alignment)	2015	Fort Ord Dunes State Park is located immediately west of the Transportation Agency for Monterey County rail corridor and State Highway 1 west of the former Fort Ord; immediately adjacent to the Proposed Project Coastal Alignment Option Product Water Conveyance alignment.

Projects Considered for Cumulative Analysis (listed by primary geographic area in which project is located)

Cumulative Project No.	Project Name (Proponent or Proponent and Lead Agency)*	Project Description	Areas of Overlap (Potentially Affected Project Components)	Estimated Construction Schedule	Project Location / Approximate Distance to nearest GWR Project Component
		access/trails; one plumbed restroom with shower; 200 foot wildlife/habitat corridor; internal campground trail network, trail improvements and roadway improvements; and off-site utilities.			
*Proponent is identified specifically when available and in all cases for water projects. Lead Agency is shown as the jurisdiction unless stated otherwise.					

Appendix E – Mitigation, Monitoring, and Reporting Plan

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FINAL DRAFT

**MITIGATION MONITORING AND REPORTING PROGRAM
for the Pure Water Monterey Groundwater Replenishment Project:
Staff-Recommended Alternative (October 1, 2015)**

INTRODUCTION

Section 21081.6 of the California Public Resources Code and Section 15091(d) and Section 15097 of the California Environmental Quality Act (CEQA) Guidelines require public agencies “to adopt a reporting or monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.” This Mitigation Monitoring and Reporting Program (MMRP) has been prepared for the Pure Water Monterey Groundwater Replenishment (GWR) Project, as modified by the Alternative Monterey Pipeline, and reflecting selection of the Regional Urban Water Augmentation Project (RUWAP) alignment for the Product Water Conveyance pipeline and booster pump station. This MMRP is based on the mitigation measures included in the Final Environmental Impact Report (EIR).

This MMRP is applicable to the Staff-Recommended Alternative of the GWR Project. The Staff-Recommended Alternative includes the RUWAP Alignment Option for the Product Water Conveyance pipeline and booster pump station and the Alternative Monterey Pipeline for the CalAm Distribution System Improvements. Therefore, this MMRP includes mitigation measures, monitoring and reporting requirements identified in the Final EIR for these two project components, and it does not include mitigation measures identified for the originally proposed Monterey or Transfer Pipelines of the CalAm Distribution System Improvements, nor the Coastal Alignment Option for the Product Water Conveyance pipeline and booster pump station, since those components are not recommended for approval. Mitigation measures, monitoring and reporting requirements for all other GWR Project components, as modified by the Alternative Monterey Pipeline, are included herein.

For a complete list of acronyms used in this document, please refer to the acronym list in the Draft EIR on pages xii through xvi.

EXHIBIT B

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Exhibit B.
Mitigation Monitoring and Reporting Program – Pure Water Monterey Groundwater Replenishment Project: Staff-Recommended Alternative

Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
Impact AE-2: Construction Impacts due to Temporary Light and Glare	Mitigation Measure AE-2: Minimize Construction Nighttime Lighting. As part of its contract specifications, MRWPCA shall require its construction contractors to implement site-specific nighttime construction lighting measures for nighttime construction at the proposed Injection Well Facilities site and for the CalAm Distribution System: Alternative Monterey Pipeline. The measures shall, at a minimum, require that lighting be shielded, directed downward onto work areas to minimize light spillover, and specify that construction lighting use the minimum wattage necessary to provide safety at the construction sites. MRWPCA shall ensure these measures are implemented at all times during nighttime construction at the Injection Well Facilities site and for the CalAm Distribution System: Alternative Monterey Pipeline and for the duration of all required nighttime construction activity at these locations.	Injection Well Facilities Site and CalAm Distribution System: Alternative Monterey Pipeline	In contract specifications and during project construction	MRWPCA, CalAm, construction contractors	During project construction	MRWPCA and CalAm
Impact AE-3: Degradation of Visual Quality of Sites and Surrounding Areas	Mitigation Measure AE-3: Provide Aesthetic Screening for New Above-Ground Structures. Proposed above-ground features at the Booster Pump Station and Injection Well Facilities (at a minimum, at the well clusters and back-flush basin), shall be designed to minimize visual impacts by incorporating screening with vegetation, or other aesthetic design treatments, subject to review and approval of the City of Seaside which has also requested that the buildings be designed with Monterey/Mission style architecture to match the design of the structures that have been built on the Santa Margarita ASR site and the Seaside Middle School ASR Site. All pipelines placed within the City of Seaside on General Jim Moore Boulevard shall be placed underground. MRWPCA shall coordinate with the City of Seaside on the location of injection wells and booster pumps in order to reduce conflicts with future commercial/residential development opportunities. Screening and aesthetic design treatments at the RUWAP Booster Pump Station component shall be subject to review and approval by the City of Marina. Use of standard, commercial-grade, chain link fencing and barbed wire should be discouraged.	RUWAP Booster Pump Station and Injection Well Facilities	Prior to City of Seaside and City of Marina issuance of grading, easements/ROW permits	MRWPCA project engineers and contractors	During project construction	MRWPCA; Cities of Seaside and Marina (public works directors)
Impact AE-4: Impacts due to Permanent Light and Glare during Operations	Mitigation Measure AE-4: Exterior Lighting Minimization. To prevent exterior lighting from affecting nighttime views, the design and operation of lighting at the RUWAP Product Water Conveyance Booster Pump Station and Injection Well Facilities, shall adhere to the following requirements: <ul style="list-style-type: none"> • Use of low-intensity street lighting and low-intensity exterior lighting shall be required. No floodlights shall be allowed at night within the City of Marina. • Lighting fixtures shall be cast downward and shielded to prevent light from spilling onto adjacent offsite uses. • Lighting fixtures shall be designed and placed to minimize glare that could affect users of adjacent properties, buildings, and roadways. • Fixtures and standards shall conform to state and local safety and illumination requirements. 	RUWAP Booster Pump Station and Injection Well Facilities	Prior to City of Seaside and Marina issuance of grading and easements/ROW permits	MRWPCA project engineers and contractors	During project operation	MRWPCA; Cities of Seaside and Marina (public works directors)
Impact AQ-1: Construction Criteria Pollutant Emissions	Mitigation Measure AQ-1: Construction Fugitive Dust Control Plan. The following standard Dust Control Measures shall be implemented during construction to help prevent potential nuisances to nearby receptors due to fugitive dust and to reduce contributions to exceedances of the state ambient air quality standards for PM ₁₀ , in accordance with MBUAPCD's CEQA Guidelines. <ul style="list-style-type: none"> • Water all active construction areas as required with non-potable sources to the extent feasible; frequency should be based on the type of operation, soil, and wind exposure and minimized to prevent wasteful use of water. • Prohibit grading activities during periods of high wind (over 15 mph). • Cover all trucks hauling soil, sand, and other loose materials and require trucks to maintain at least 2 feet of freeboard. • Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. • Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. • Enclose, cover, or water daily exposed stockpiles (dirt, sand, etc.). • Replant vegetation in disturbed areas as quickly as possible. 	All components	During project construction	MRWPCA, CalAm project engineers and contractors	During project construction	MRWPCA, CalAm, and MBUAPCD

¹ CalAm Distribution System: Alternative Monterey Pipelines and the associated mitigation measures would be the responsibility of CalAm to implement and the local jurisdictions and/or the California Public Utilities Commission to monitor.

**Exhibit B.
Mitigation Monitoring and Reporting Program – Pure Water Monterey Groundwater Replenishment Project: Staff-Recommended Alternative**

Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
	<ul style="list-style-type: none"> Wheel washers shall be installed and used by truck operators at the exits of the construction sites to the AWT Facility site, the Injection Well Facilities, and the Booster Pump Station. 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 MBUAPCD shall also be visible to ensure compliance with MBUAPCD rules. 					
Impact BF-1: Habitat Modification Due to Construction of Diversion Facilities	<p>Mitigation Measure BF-1a: Construction during Low Flow Season. Implement Mitigation Measure BT-1a. Conduct construction of diversion facilities, including the directional drilling under the Salinas River, during periods of low flow outside of the SCCC steelhead migration periods, i.e. between June and November, which would be outside of the adult migration period from December through April and outside of the smolt migration period from March through May.</p>	Reclamation Ditch, Tembladero Slough, and Blanco Drain Diversions	Prior to commencing construction	MRWPCA engineers and contractors	During construction	MRWPCA
	<p>Mitigation Measure BF-1b: Relocation of Aquatic Species during Construction. Conduct pre-construction surveys to determine whether tidewater gobies or other fish species are present, and if so, implement appropriate measures in consultation with applicable regulatory agencies, which may include a program for capture and relocation of tidewater gobies to suitable habitat outside of work area during construction. Pre-construction surveys shall be consistent with requirements and approved protocols of applicable resource agencies and performed by a qualified fisheries biologist.</p>	Reclamation Ditch and Tembladero Slough Diversions	Prior to project construction	Qualified biologists	Prior to construction	MRWPCA
	<p>Mitigation Measure BF-1c: Tidewater Goby and Steelhead Impact Avoidance and Minimization. To ensure compliance with the federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA), consultation with NMFS/NOAA, USFWS, and CDFW shall be conducted as required, and any necessary take permits or authorizations would be obtained. If suitable habitat for tidewater goby (Tembladero Slough) and steelhead cannot be avoided, any in-stream portions of each project component (where the Project improvements require in-stream work) shall be dewatered/ diverted. A dewatering/diversion plan shall be prepared and submitted to NMFS, USFWS, and CDFW for review and approval. Specific plan elements are noted below and will be refined through consultation with USFWS, NMFS and CDFW:</p> <ul style="list-style-type: none"> Required Pre-Construction surveys identified in Mitigation Measure BF-1b shall be consistent with requirements and approved protocol of applicable resource agencies and performed by a qualified fisheries biologist. All dewatering/diversion activities shall be monitored by a qualified fisheries biologist. The fisheries biologist shall be responsible for capture and relocation of fish species out of the work area during dewatering/diversion installation. The project proponents shall designate a qualified representative to monitor on-site compliance of all avoidance and minimization measures. The fisheries biologist shall have the authority to halt any action which may result in the take of listed species. Only USFWS/NMFS/CDFW-approved biologists shall participate in the capture and handling of listed species subject to the conditions in the Incidental Take Permits as noted above. No equipment shall be permitted to enter wetted portions of any affected drainage channel. All equipment operating within streams shall be in good conditions and free of leaks. Spill containment shall be installed under all equipment staged within stream areas and extra spill containment and clean up materials shall be located in close proximity for easy access. Work within and adjacent to streams shall not occur between November 1 and June 1 unless otherwise approved by NMFS and the CDFW. If project activities could degrade water quality, water quality sampling shall be implemented to identify the pre-project baseline, and to monitor during construction for comparison to the baseline. If water is to be pumped around work sites, intakes shall be completely screen with wire mesh not larger than five millimeters to prevent animals from entering the pump system. If any tidewater goby or steelhead are harmed during implementation of the project, the project biologist shall document the circumstances that led to harm and shall determine if project activities should cease or be altered in an effort to avoid further harm to 	Reclamation Ditch and Tembladero Slough Diversions	Prior to project construction	MRWPCA Qualified biologists	During construction	MRWPCA, NMFS/NOAA, USFWS, CDFW

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	<p>the species.</p> <ul style="list-style-type: none"> Water turbidity shall be monitored by a qualified biologist or water quality specialist during all instream work. Water turbidity shall be tested daily at both an upstream location for baseline measurement and downstream to determine if project activities are altering water turbidity. Turbidity measures shall be taken within 50 feet of construction activities to rule out other outside influences. Additional turbidity testing shall occur if visual monitoring indicates an increased in turbidity downstream of the work area. If turbidity levels immediately downstream of the project rise to more than 20 NTUs (Nephelometric Turbidity Units) above the upstream (baseline) turbidity levels, all construction shall be halted and all erosion and sediment control devices shall be thoroughly inspected for proper function, or shall be replaced with new devices to prevent additional sediment discharge into streams. <p>The above mitigation is subject to review and approval for CESA and FESA requirements by approving agencies as identified above and may be modified to further reduce, avoid or minimize impacts to species.</p>					
<p>Impact BF-2: Interference with Fish Migration</p>	<p>Mitigation Measure BF-2a: Maintain Migration Flows. Implement BF-1a, BF-1b, and BF-1c. Operate diversions to maintain steelhead migration flows in the Reclamation Ditch based on two criteria – one for upstream adult passage in Jan-Feb-Mar and one for downstream juvenile passage in Apr-May. For juvenile passage, the downstream passage shall have a flow trigger in both Gabilan Creek and at the Reclamation Ditch, so that if there is flow in Gabilan Creek that would allow outmigration, then the bypass flow requirements, as measured at the San Jon Gage of the Reclamation Ditch, shall be applied (see Hagar Environmental Science, <i>Estimation of Minimum Flows for Migration of Steelhead in the Reclamation Ditch</i>, February 27, 2015, in Appendix G-2, of the Draft EIR and Schaaf & Wheeler, <i>Fish Passage Analysis: Reclamation Ditch at San Jon Rd. and Gabilan Creek at Laurel Rd.</i> July 15, 2015 in Appendix CC of this Final EIR). If there is no flow in Gabilan Creek, then only the low flow (minimum bypass flow requirement as proposed in the project description) shall be applied, and these flows for the dry season at Reclamation Ditch as measured at the San Jon USGS gage shall be met. <i>Note: If there is no flow gage in Gabilan Creek, then downstream passage flow trigger shall be managed based on San Jon Road gage and flows.</i></p> <p><i>Alternately, as the San Jon weir located at the USGS gage is considered a barrier to steelhead migration and the bypass flow requirements have been developed to allow adult and smolt steelhead migration to have adequate flow to travel past this obstacle, if the weir were to be modified to allow steelhead passage, the mitigation above would not have to be met. Therefore, alternate Mitigation Measure BF-2a has been developed, as follows:</i></p>	<p>Reclamation Ditch Diversion</p>	<p>During project operations</p>	<p>MRWPCA</p>	<p>During project operations</p>	<p>MRWPCA, NMFS/NOAA, USFWS, CDFW</p>
	<p>Mitigation Measure Alternate BF-2a: Modify San Jon Weir. Construct modifications to the existing San Jon weir to provide for steelhead passage. Modifications could include downstream pool, modifications to the structural configuration of the weir to allow passage or other construction, and improvements to remove the impediment to steelhead passage defined above.</p> <p>The above mitigation is subject to compliance with CESA and FESA and appropriate approving agencies may modify the above mitigation to further reduce, avoid, or minimize impacts to species.</p>	<p>Reclamation Ditch Diversion</p>	<p>Prior to project operations</p>	<p>Project engineers, construction contractors</p>	<p>Prior to project operations</p>	<p>MRWPCA, NMFS/NOAA, USFWS, CDFW</p>
<p>Impact BT-1: Construction Impacts to Special-Status Species and Habitat</p>	<p>Mitigation Measure BT-1a: Implement Construction Best Management Practices. The following best management practices shall be implemented during all identified phases of construction (i.e., pre-, during, and post-) to reduce impacts to special-status plant and wildlife species:</p> <ol style="list-style-type: none"> A qualified biologist must conduct an Employee Education Program for the construction crew prior to any construction activities. A qualified biologist must meet with the construction crew at the onset of construction at the site to educate the construction crew on the following: 1) the appropriate access route(s) in and out of the construction area and review project boundaries; 2) how a biological monitor will examine the area and agree upon a method which would ensure the safety of the monitor during such activities, 3) the special-status species that may be present; 4) the specific mitigation measures that will be incorporated into the construction effort; 5) the general provisions and protections afforded by the USFWS and CDFW; and 6) the proper procedures if a special-status species is encountered within the site. Trees and vegetation not planned for removal or trimming shall be protected prior to and during construction to the maximum extent possible through the use of exclusionary fencing, such as hay bales for herbaceous and shrubby vegetation, and protective wood barriers for trees. Only certified weed-free straw shall be used, to avoid the introduction of non-native, invasive species. A biological monitor shall supervise the installation of protective fencing and monitor at least once per week until construction is complete to ensure that the 	<p>All components</p>	<p>Prior to, during and after project construction</p>	<p>MRWPCA, CalAm, construction contractors and qualified biologist</p>	<p>Prior to and during project construction</p>	<p>MRWPCA, CalAm, qualified biologist and construction biological monitor; City of Seaside for Injection Well Facilities</p>

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	<p>protective fencing remains intact.</p> <ol style="list-style-type: none"> 3. Protective fencing shall be placed prior to and during construction to keep construction equipment and personnel from impacting vegetation outside of work limits. A biological monitor shall supervise the installation of protective fencing and monitor at least once per week until construction is complete to ensure that the protective fencing remains intact. 4. Following construction, disturbed areas shall be restored to pre-construction contours to the maximum extent possible and revegetated using locally-occurring native species and native erosion control seed mix, per the recommendations of a qualified biologist. 5. Grading, excavating, and other activities that involve substantial soil disturbance shall be planned and carried out in consultation with a qualified hydrologist, engineer, or erosion control specialist, and shall utilize standard erosion control techniques to minimize erosion and sedimentation to native vegetation (pre-, during, and post-construction). 6. No firearms shall be allowed on the construction sites at any time. 7. All food-related and other trash shall be disposed of in closed containers and removed from the project area at least once a week during the construction period, or more often if trash is attracting avian or mammalian predators. Construction personnel shall not feed or otherwise attract wildlife to the area. 8. To protect against spills and fluids leaking from equipment, the project proponent shall require that the construction contractor maintains an on-site spill plan and on-site spill containment measures that can be easily accessed. 9. Refueling or maintaining vehicles and equipment should only occur within a specified staging area that is at least 100 feet from a waterbody (including riparian and wetland habitat) and that has sufficient management measures that will prevent fluids or other construction materials including water from being transported into waters of the state. Measures shall include confined concrete washout areas, straw wattles placed around stockpiled materials and plastic sheets to cover materials from becoming airborne or otherwise transported due to wind or rain into surface waters. 10. The project proponent and/or its contractors shall coordinate with the City of Seaside on the location of Injection Well Facilities and the removal of sensitive biotic material. 					
<p>Impact BT-1: Construction Impacts to Special-Status Species and Habitat (continued)</p>	<p>Mitigation Measure BT-1b: Implement Construction-Phase Monitoring. The project proponents shall retain a qualified biologist to monitor all ground disturbing construction activities (i.e., vegetation removal, grading, excavation, or similar activities) to protect any special-status species encountered. Any handling and relocation protocols of special-status wildlife species shall be determined in coordination with CDFW prior to any ground disturbing activities, and conducted by a qualified biologist with appropriate scientific collection permit. After ground disturbing project activities are complete, the qualified biologist shall train an individual from the construction crew to act as the on-site construction biological monitor. The construction biological monitor shall be the contact for any special-status wildlife species encounters, shall conduct daily inspections of equipment and materials stored on site and any holes or trenches prior to the commencement of work, and shall ensure that all installed fencing stays in place throughout the construction period. The qualified biologist shall then conduct regular scheduled and unscheduled visits to ensure the construction biological monitor is satisfactorily implementing all appropriate mitigation protocols. Both the qualified biologist and the construction biological monitor shall have the authority to stop and/or redirect project activities to ensure protection of resources and compliance with all environmental permits and conditions of the project. The qualified biologist and the construction monitor shall complete a daily log summarizing activities and environmental compliance throughout the duration of the project. The log shall also include any special-status wildlife species observed and relocated.</p>	<p>Salinas Pump Station, Salinas Treatment Facility, Blanco Drain Diversion, Product Water Conveyance: RUWAP Alignment (Pipeline and Booster Pump Station) and Injection Well Facilities</p>	<p>Prior to and during project construction</p>	<p>MRWPCA, qualified biologists</p>	<p>Prior to and during project construction</p>	<p>MRWPCA qualified biologist and construction biological monitor; CDFW</p>
	<p>Mitigation Measure BT-1c: Implement Non-Native, Invasive Species Controls. The following measures shall be implemented to reduce the introduction and spread of non-native, invasive species:</p> <ol style="list-style-type: none"> 1. Any landscaping or replanting required for the project shall not use species listed as noxious by the California Department of Food and Agriculture (CDFA). 2. Bare and disturbed soil shall be landscaped with CDFA recommended seed mix or plantings from locally adopted species to preclude the invasion on noxious weeds in the Project Study Area. 3. Construction equipment shall be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds, before mobilizing to arrive at the construction site and before leaving the construction site. 	<p>All except Alternative Monterey Pipeline</p>	<p>During project construction</p>	<p>Construction contactors</p>	<p>During project construction</p>	<p>MRWPCA qualified biologist and construction biological monitor</p>

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	4. All non-native, invasive plant species shall be removed from disturbed areas prior to replanting.					
Impact BT-1: Construction Impacts to Special-Status Species and Habitat (continued)	<p>Mitigation Measure BT-1d: Conduct Pre-Construction Surveys for California Legless Lizard. The project proponents shall retain a qualified biologist to prepare and implement a legless lizard management plan in coordination with CDFW, which shall include, but is not limited to, the protocols for pre-construction surveys, construction monitoring, and salvage and relocation. The management plan shall include, but is not limited to, the following:</p> <ul style="list-style-type: none"> • Pre-Construction Surveys. Pre-construction surveys for legless lizards shall be conducted in all suitable habitat proposed for construction, ground disturbance, or staging. The qualified biologist shall hold or obtain a CDFW scientific collection permit for this species. The pre-construction surveys shall use a method called “high-grading.” The high grading method shall include surveying the habitat where legless lizards are most likely to be found, and the survey must occur under the conditions when legless lizards are most likely to be seen and captured (early morning, high soil moisture, overcast, etc.). The intensity of a continued search may then be adjusted, based on the results of the first survey in the best habitat. A “three pass method” shall be used to locate and remove as many legless lizards as possible. A first pass shall locate as many legless lizards as possible, a second pass should locate fewer lizards than the first pass, and a third pass should locate fewer lizards than the second pass. All search passes shall be conducted in the early morning when legless lizards are easiest to capture. Vegetation may be removed by hand to facilitate hand raking and search efforts for legless lizards in the soil under brush. If lizards are found during the first pass, an overnight period of no soil disturbance must occur before the second pass, and the same requirement shall be implemented after the second pass. If no lizards are found during the second pass, a third pass is not required. Installation of a barrier, in accordance with the three pass method, shall be required if legless lizards are found at the limits of construction (project boundaries) and sufficient soft sand and vegetative cover are present to suspect additional lizards are in the immediate vicinity on the adjacent property. A barrier shall prevent movement of legless lizards into the property. All lizards discovered shall be handled according to the salvage procedures outlined below. • Construction Monitoring. Monitoring by a qualified biologist shall be ongoing during construction. The onsite monitor shall be present during all ground disturbing construction activities. To facilitate the careful search for lizards during construction, vegetation may need to be removed. If removal by hand is impractical, equipment such as a chainsaw, string trimmer, or skid-steer may be used, if a monitor and crew are present. The task of the vegetation removal is to remove plants under the direction of the monitor, allowing the monitor to watch for legless lizards. After plants are removed, the monitor and crew shall search the exposed area for legless lizards. If legless lizards are found during preconstruction surveys or construction monitoring, the protocols for salvage and relocation identified below shall be followed. Upon completion of pre-construction surveys, construction monitoring, and any resulting salvage and relocation actions, a report shall be submitted to the CDFW. The CDFW must be notified at least 48 hours before any field activity begins. • Salvage and Relocation. Only experienced persons may capture or handle legless lizards. The monitor must demonstrate a basic understanding, knowledge, skill, and experience with this species and its habitat. Once captured, a lizard shall be placed in a lidded, vented box containing clean sand. Areas of moist and dry sand need to be present in the box. The boxes must be kept out of direct sunlight and protected from temperatures over 72°F. The sand must be kept at temperatures under 66°F. Ideal temperatures are closer to 60°F. On the same day as capture, the lizards shall be examined for injury and data recorded on location where found as well as length, color, age, and tail condition. Once data is recorded, lizards shall be relocated to appropriate habitat, as determined through coordination with the CDFW, qualified biologist, and potential landowners. <p>Suitability of habitat for lizard release must be evaluated and presented in a management plan. The habitat must contain habitat factors most important to the health and survival of the species such as appropriate habitat based on soils, vegetated cover, native plant species providing cover, plant litter layer and depth, soil and ambient temperature, quality and composition of invertebrate population and prey availability. Potential relocation sites that contain the necessary conditions may exist within the habitat reserves on the former Fort Ord, including the Fort Ord National Monument. Lizards shall be marked with a unique tag (pit or tattoo) prior to release. Release for every lizard shall be recorded with GPS. GPS locations shall be submitted as part of the survey result report to document the number and locations of lizards relocated.</p>	<p>Product Water Conveyance: RUWAP Alignment (Pipeline and Booster Pump Station) and Injection Well Facilities</p>	<p>Prior to and during project construction</p>	<p>MRWPCA, qualified biologist</p>	<p>Prior to and during project construction</p>	<p>MRWPCA, qualified biologist</p>

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	<p>Mitigation Measure BT-1e: Prepare and Implement Rare Plant Restoration Plan to Mitigate Impacts to Sandmat Manzanita, Monterey Ceanothus, Monterey Spineflower, Eastwood’s Goldenbush, Coast Wallflower, and Kellogg’s Horkelia. Impacts to rare plant species individuals shall be avoided through project design and modification, to the extent feasible while taking into consideration other site and engineering constraints. If avoidance is not possible, the species shall be replaced at a 1:1 ratio for area of impact through preservation, restoration, or combination of both. A Rare Plant Restoration Plan, approved by the lead agency prior to commencing construction on the component site upon which the rare plant species would be impacted, shall be prepared and implemented by a qualified biologist. The plan shall include, but is not limited to, the following:</p> <ol style="list-style-type: none"> A detailed description of on-site and/or off-site mitigation areas, salvage of seed and/or soil bank, plant salvage, seeding and planting specifications, including, if appropriate, increased planting ratio to ensure the applicable success ratio. Specifically, seed shall be collected from the on-site individuals that would be impacted and grown in a local greenhouse, and then transplanted within the mitigation area. Plants shall be transplanted while they are young seedlings in order to develop a good root system. Alternatively, the mitigation area may be broadcast seeded in fall; however, if this method is used, some seed shall be retained in the event that the seeding fails to produce viable plants and contingency measures need to be employed. A description of a 3-year monitoring program, including specific methods of vegetation monitoring, data collection and analysis, restoration goals and objectives, success criteria, adaptive management if the criteria are not met, reporting protocols, and a funding mechanism. <p>The mitigation area shall be preserved in perpetuity through a conservation easement or other legally enforceable land preservation agreement. Exclusionary fencing shall be installed around the mitigation area to prevent disturbance until success criteria have been met.</p>	<p>RUWAP Pipeline Alignment, and , Injection Well Facilities,; does not apply to HMP species within the former Fort Ord.</p>	<p>Prior to project construction</p>	<p>Project engineers, project biologist, MRWPCA</p>	<p>For 3 years upon completion of construction</p>	<p>MRWPCA qualified biologist</p>
<p>Impact BT-1: Construction Impacts to Special-Status Species and Habitat (continued)</p>	<p>Mitigation Measure BT-1f: Conduct Pre-Construction Protocol-Level Botanical Surveys within the remaining portion of the Project Study Area within the Injection Well Facilities site. The project proponents shall retain a qualified biologist to conduct protocol-level surveys for special-status plant species within the Injection Well Facilities site not yet surveyed. Protocol-level surveys shall be conducted by a qualified biologist at the appropriate time of year for species with the potential to occur within the site. A report describing the results of the surveys shall be provided to the project proponents prior to any ground disturbing activities. The report shall include, but is not limited to: 1) a description of the species observed, if any; 2) map of the location, if observed; and 3) recommended avoidance and minimization measures, if applicable. The avoidance and minimization measures shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> Impacts to species individuals shall be avoided through project design and modification, to the extent feasible while taking into consideration other site and engineering constraints. If impacts to State listed plant species cannot be avoided, the project proponents shall comply with the CESA and consult with the CDFW to determine whether authorization for the incidental take of the species is required prior to commencing construction. If it is determined that authorization for incidental take is required from the CDFW, the project proponents shall comply with the CESA to obtain an incidental take permit prior to commencing construction on the site upon which state listed plant species could be taken. Permit requirements typically involve preparation and implementation of a mitigation plan and mitigating impacted habitat at a 3:1 ratio through preservation and/or restoration. At a minimum, the impacted plant species shall be replaced at a 1:1 ratio through preservation and/or restoration, as described below. The project proponents shall retain a qualified biologist to prepare a mitigation plan, which shall include, but is not limited to identifying: avoidance and minimization measures; mitigation strategy, including a take assessment, avoidance and minimization measures, compensatory mitigation lands, and success criteria; and funding assurances. The project proponents shall be required to implement the approved plan and any additional permit requirements. If impacts to non-State listed, special-status plant species cannot be avoided, the species shall be replaced at a 1:1 ratio for acreage and/or individuals impacted through preservation, restoration, or combination of both. A Rare Plant Restoration Plan, approved by the project proponents prior to commencing of construction on the site upon which the rare plant would be impacted, shall be prepared and implemented by a qualified biologist. The plan shall include, but is not limited to, the following: <ul style="list-style-type: none"> A detailed description of on-site and/or off-site mitigation areas, salvage of seed and/or soil bank, plant salvage, seeding and planting 	<p>Non-HMP species at the Injection Well Facilities site</p>	<p>Prior to project construction</p>	<p>MRWPCA, qualified biologist</p>	<p>During construction and 3 years following completion of construction</p>	<p>MRWPCA qualified biologist</p>

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	<p>specifications, including, if appropriate, increased planting ratio to ensure the applicable success ratio. Specifically, seed shall be collected from the on-site individuals that will be impacted and grown in a local greenhouse, and then transplanted within the mitigation area. Plants shall be transplanted while they are young seedlings in order to develop a good root system. Alternatively, the mitigation area may be broadcast seeded in fall; however, if this method is used, some seed shall be retained in the event that the seeding fails to produce viable plants and contingency measures need to be employed.</p> <ul style="list-style-type: none"> ○ A description of a 3-year monitoring program, including specific methods of vegetation monitoring, data collection and analysis, restoration goals and objectives, success criteria, adaptive management if the criteria are not met, reporting protocols, and a funding mechanism. <p>The mitigation area shall be preserved in perpetuity through a conservation easement or other legally enforceable land preservation agreement. Exclusionary fencing shall be installed around the mitigation area to prevent disturbance until success criteria have been met.</p>					
<p>Impact BT-1: Construction Impacts to Special-Status Species and Habitat (continued)</p>	<p>Mitigation Measure BT-1g: Conduct Pre-Construction Surveys for Special-Status Bats. To avoid and reduce impacts to special-status bat species, the project proponents shall retain a qualified bat specialist or wildlife biologist to conduct site surveys during the reproductive season (May 1 through September 15) to characterize bat utilization of the component site and potential species present (techniques utilized to be determined by the biologist) prior to tree or building removal. Based on the results of these initial surveys, one or more of the following shall occur:</p> <ul style="list-style-type: none"> • If it is determined that bats are not present at the component site, no additional mitigation is required. • If it is determined that bats are utilizing the component site and may be impacted by the Project, pre-construction surveys shall be conducted no more than 30 days prior to any tree or building removal (or any other suitable roosting habitat) within 100 feet of construction limits. If, according to the bat specialist, no bats or bat signs are observed in the course of the pre-construction surveys, tree and building removal may proceed. If bats and/or bat signs are observed during the pre-construction surveys, the biologist shall determine if disturbance would jeopardize a maternity roost or another type of roost (i.e., foraging, day, or night). • If a single bat and/or only adult bats are roosting, removal of trees, buildings, or other suitable habitat may proceed after the bats have been safely excluded from the roost. Exclusion techniques shall be determined by the biologist and would depend on the roost type. • If an active maternity roost is detected, avoidance is preferred. Work in the vicinity of the roost (buffer to be determined by biologist) shall be postponed until the biologist monitoring the roost determines that the young have fledged and are no longer dependent on the roost. The monitor shall ensure that all bats have left the area of disturbance prior to initiation of pruning and/or removal of trees that would disturb the roost. If avoidance is not possible and a maternity roost must be disrupted, authorization from CDFW shall be required prior to removal of the roost. 	<p>Salinas Pump Station, Salinas Treatment Facility, Blanco Drain Diversion, Product Water Conveyance: RUWAP Alignment and Injection Well Facilities</p>	<p>Prior to project construction</p>	<p>MRWPCA, qualified biologist (bat/wildlife specialist)</p>	<p>Prior to project construction</p>	<p>MRWPCA and qualified biologist</p>
	<p>Mitigation Measure BT-1h: Implementation of Mitigation Measures BT-1a and BT-1b to Mitigate Impacts to the Monterey Ornate Shrew, Coast Horned Lizard, Coast Range Newt, Two-Striped Garter Snake, and Salinas Harvest Mouse. If these species are encountered, implementation of Mitigation Measures BT-1a and BT- 1b, which avoid and minimize impacts through implementing construction best management practices and monitoring, would reduce potential impacts to these species to a less-than-significant level.</p>	<p>Blanco Drain Diversion, Product Water Conveyance: RUWAP Alignment and Injection Well Facilities</p>	<p>Prior to and during project construction</p>	<p>MRWPCA contractors and qualified biologists</p>	<p>Prior to and during project construction</p>	<p>MRWPCA qualified biologist</p>
	<p>Mitigation Measure BT-1i: Conduct Pre-Construction Surveys for Monterey Dusky- Footed Woodrat. To avoid and reduce impacts to the Monterey dusky-footed woodrat, the project proponents shall retain a qualified biologist to conduct pre-construction surveys in suitable habitat proposed for construction, ground disturbance, or staging within three days prior to construction for woodrat nests within the project area and in a buffer zone 100 feet out from the limit of disturbance. All woodrat nests shall be flagged for avoidance of direct construction impacts and protection during construction, where feasible. Nests that cannot be avoided shall be manually deconstructed prior to land clearing activities to allow animals to escape harm. If a litter of young is found or suspected, nest material shall be replaced, and the nest left alone for 2-3 weeks before a re-check to verify that young are capable of independent survival before proceeding with nest dismantling.</p>	<p>Blanco Drain Diversion, Product Water Conveyance: RUWAP Pipeline Alignment, and Injection Well Facilities</p>	<p>Prior to project construction</p>	<p>MRWPCA contractors and qualified biologists</p>	<p>Prior to project construction</p>	<p>MRWPCA qualified biologist</p>

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Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
Impact BT-1: Construction Impacts to Special-Status Species and Habitat (continued)	<p>Mitigation Measure BT-1j: Conduct Pre-Construction Surveys for American Badger. To avoid and reduce impacts to the American badger, the project proponents shall retain a qualified biologist to conduct focused pre-construction surveys for badger dens in all suitable habitat proposed for construction, ground disturbance, or staging no more than two weeks prior to construction. If no potential badger dens are present, no further mitigation is required. If potential dens are observed, the following measures are required to avoid potential significant impacts to the American badger:</p> <ul style="list-style-type: none"> • If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers from reusing them during construction. • If the qualified biologist determines that potential dens may be active, the den shall be monitored for a period sufficient (as determined by a qualified biologist) to determine if the den is a maternity den occupied by a female and her young, or if the den is occupied by a solitary badger. • Maternity dens occupied by a female and her young shall be avoided during construction and a minimum buffer of 200 feet in which no construction activities shall occur shall be maintained around the den. After the qualified biologist determines that badgers have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction. • Solitary male or female badgers shall be passively relocated by blocking the entrances of the dens with soil, sticks, and debris for three to five days to discourage the use of these dens prior to project construction disturbance. The den entrances shall be blocked to an incrementally greater degree over the three to five day period. After the qualified biologist determines that badgers have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction. 	<p>Product Water Conveyance: RUWAP Pipeline Alignment</p>	<p>Prior to project construction</p>	<p>MRWPCA construction contractors and qualified biologists</p>	<p>Prior to project construction</p>	<p>MRWPCA qualified biologist</p>
	<p>Mitigation Measure BT-1k: Conduct Pre-Construction Surveys for Protected Avian Species, including, but not limited to, white-tailed kite and California horned lark. Prior to the start of construction activities at each project component site, a qualified biologist shall conduct pre-construction surveys for suitable nesting habitat within the component Project Study Area and within a suitable buffer area from the component Project Study Area. The qualified biologist shall determine the suitable buffer area based on the avian species with the potential to nest at the site.</p> <p>In areas where nesting habitat is present within the component project area or within the determined suitable buffer area, construction activities that may directly (e.g., vegetation removal) or indirectly (e.g., noise/ground disturbance) affect protected nesting avian species shall be timed to avoid the breeding and nesting season. Specifically, vegetation and/or tree removal can be scheduled after September 16 and before January 31. Alternatively, a qualified biologist shall be retained by the project proponents to conduct pre-construction surveys for nesting raptors and other protected avian species where nesting habitat was identified and within the suitable buffer area if construction commences between February 1 and September 15. Pre-construction surveys shall be conducted no more than 14 days prior to the start of construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). Because some bird species nest early in spring and others nest later in summer, surveys for nesting birds may be required to continue during construction to address new arrivals, and because some species breed multiple times in a season. The necessity and timing of these continued surveys shall be determined by the qualified biologist based on review of the final construction plans.</p> <p>If active raptor or other protected avian species nests are identified during the preconstruction surveys, the qualified biologist shall notify the project proponents and an appropriate no-disturbance buffer shall be imposed within which no construction activities or disturbance shall take place until the young have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist.</p>	<p>All components</p>	<p>Prior to project construction and if found establish and comply with no-disturbance buffer</p>	<p>MRWPCA, CalAm, construction contractors, and qualified biologists</p>	<p>Prior to project construction</p>	<p>MRWPCA, CalAm, qualified biologist(s), USFWS</p>
	<p>Mitigation Measure BT-1l: Conduct Pre-Construction Surveys for Burrowing Owl. In order to avoid impacts to active burrowing owl nests, a qualified biologist shall conduct pre-construction surveys in suitable habitat within the construction footprint and within a suitable buffer, as determined by a qualified biologist, of the footprint no more than 30 days prior to the start of construction at a component site. If ground disturbing activities are delayed or suspended for more than 30 days after the pre-construction survey, the site shall be resurveyed.</p>	<p>Product Water Conveyance: RUWAP Pipeline Alignment</p>	<p>Prior to project construction</p>	<p>Construction contractor, MRWPCA, qualified</p>	<p>Prior to project construction</p>	<p>MRWPCA qualified biologist</p>

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Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
	<p>The survey shall conform to the DFG 1995 Staff Report protocol. If no burrowing owls are found, no further mitigation is required. If it is determined that burrowing owls occupy the site during the non-breeding season (September 1 through January 31), then a passive relocation effort (e.g., blocking burrows with one-way doors and leaving them in place for a minimum of three days) shall be undertaken to ensure that the owls are not harmed or injured during construction. Once it has been determined that the owls have vacated the site, the burrows shall be collapsed, and ground disturbance can proceed. If burrowing owls are detected within the construction footprint or immediately adjacent lands (i.e. within 250 feet of the footprint) during the breeding season (February 1 to August 31), a construction-free buffer of 250 feet shall be established around all active owl nests. The buffer area shall be enclosed with temporary fencing, and construction equipment and workers shall not enter the enclosed setback areas. Buffers shall remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents. After the breeding season, passive relocation of any remaining owls shall take place as described above.</p>			biologist		
<p>Impact BT-1: Construction Impacts to Special-Status Species and Habitat (continued)</p>	<p>Mitigation Measure BT-1m: Minimize Effects of Nighttime Construction Lighting. Nighttime construction lighting shall be focused and downward directed to preclude night illumination of the adjacent open space area.</p>	<p>Injection Well Facilities and CalAm Distribution System: Alternative Monterey Pipeline</p>	<p>During project construction</p>	<p>MRWPCA and CalAm construction contractors</p>	<p>During project construction</p>	<p>MRWPCA, CalAm, City of Seaside, City of Monterey</p>
	<p>Mitigation Measure BT-1p: Avoid and Minimize Impacts to Western Pond Turtle. A qualified biologist shall survey suitable habitat no more than 48 hours before the onset of work activities at the component site for the presence of western pond turtle. If pond turtles are found and these individuals are likely to be killed or injured by work activities, the biologist shall be allowed sufficient time to move them from the site before work activities begin. The biologist shall relocate the pond turtles the shortest distance possible to a location that contains suitable habitat and would not be affected by activities associated with the project.</p>	<p>Blanco Drain Diversion</p>	<p>Prior to project construction</p>	<p>MRWPCA construction contractor and qualified biologist</p>	<p>Prior to project construction</p>	<p>MRWPCA qualified biologist</p>
	<p>Mitigation Measure BT-1q: Avoid and Minimize Impacts to California Red-Legged Frog. The following measures for avoidance and minimization of adverse impacts to California Red-Legged Frog (CRLF) during construction of the Project components are those typically employed for construction activities that may result in short-term impacts to individuals and their habitat. The focus of these measures is on scheduling activities at certain times of year, keeping the disturbance footprint to a minimum, and monitoring.</p> <ul style="list-style-type: none"> • The MRWPCA shall annually submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project construction activities at the component site would begin until the MRWPCA receives confirmation from the USFWS that the biologist(s) is qualified to conduct the work. • A USFWS-approved biologist shall survey the work site 48 hours prior to the onset of construction activities. If CRLF, tadpoles, or eggs are found, the approved biologist shall determine the closest appropriate relocation site. The approved biologist shall be allowed sufficient time to move the CRLF, tadpoles or eggs from the work site before work activities begin. Only USFWS-approved biologists shall participate in activities associated with the capture, handling, and moving of CRLF. • Before any construction activities begin on the project component site, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the CRLF and its habitat, the importance of the CRLF and its habitat, general measures that are being implemented to conserve the CRLF as they relate to the project, and the boundaries within which the project construction activities may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions. • A USFWS-approved biologist shall be present at the work site until such time as all removal of CRLF, instruction of workers, and disturbance of habitat have been completed. After this time, the biologist shall designate a person to monitor onsite compliance with all minimization measures and any future staff training. The USFWS-approved biologist shall ensure that this individual receives training outlined in Mitigation Measure Bt-1a and in the identification of CRLF. The monitor and the USFWS-approved biologist shall have the authority to stop work if CRLF are in harm's way. • The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum 	<p>Salinas Treatment Facility and Blanco Drain Diversion</p>	<p>Prior to and during project construction</p>	<p>MRWPCA construction contractor and qualified biologist</p>	<p>Prior to and during project construction</p>	<p>MRWPCA, qualified biologist, USFWS</p>

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Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
	<p>necessary to achieve the project goal. Routes and boundaries shall be clearly demarcated, and these areas shall be outside of riparian and wetland areas to the extent practicable.</p> <ul style="list-style-type: none"> • Work activities shall be completed between April 1 and November 1, to the extent practicable. Should the project proponent demonstrate a need to conduct activities outside this period, the project proponent may conduct such activities after obtaining USFWS approval (applies to Blanco Drain site only). • If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than five millimeters (mm) to prevent CRLF from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate. • The Declining Amphibian Populations Task Force’s Fieldwork Code of Practice shall be followed to minimize the possible spread of chytrid fungus or other amphibian pathogens and parasites. 					
<p>Impact BT-2: Construction Impacts to Sensitive Habitats</p>	<p>Mitigation Measure BT-2a: Avoidance and Minimization of Impacts to Riparian Habitat and Wetland Habitats. Implement Mitigation Measure BT-1a. When designing the facilities at these component sites, the MRWPCA shall site and design project features to avoid impacts to the riparian and wetland habitats shown in Attachment 8 of Appendix H and Appendix I, including direct habitat removal and indirect hydrology and water quality impacts, to the greatest extent feasible while taking into account site and engineering constraints. To protect this sensitive habitat during construction, the following measures shall be implemented:</p> <ul style="list-style-type: none"> • Place construction fencing around riparian and wetland habitat (i.e., areas adjacent to or nearby the Project construction) to be preserved to ensure construction activities and personnel do not impact this area. • All proposed lighting shall be designed to avoid light and glare into the riparian and wetland habitat. Light sources shall not illuminate these areas or cause glare. <p>In the event that full avoidance is not possible and a portion or all of the riparian and wetland habitat would be impacted, the following minimization measures shall be implemented:</p> <ul style="list-style-type: none"> • Permanently impacted riparian and wetland habitat shall be mitigated at no less than a 2:1 replacement-to-loss ratio through restoration and/or preservation. The final mitigation amounts for both temporary and permanent impacts to riparian and wetland habitat shall be determined during the design phase but cannot be less than 2:1 for permanent impacts and 1:1 for temporary impacts, and must be approved by the relevant permitting agencies (USACOE, RWQCB, CDFW, and the entity issuing any Coastal Development Permit). The preserved mitigation land shall be managed to improve wetland and riparian conditions compared to existing conditions. It is expected that the mitigation can occur within the Locke Paddon Lake watershed, along the Tembladero Slough, and within the Salinas River corridor near the Blanco Drain near where impacts may occur. A Habitat Mitigation and Monitoring Plan (HMMP) shall be prepared by a qualified biologist to mitigate for impacts to riparian and wetland habitat. The HMMP shall outline the details of a riparian and wetland habitat restoration plan, including but not limited to, planting plan, success criteria, monitoring protocols to determine if the success criteria have been met, adaptive management protocols in the case that the success criteria are not met, and funding assurances. Plantings and revegetation conducted in compliance with this mitigation measure shall be monitored for a minimum of three years after project completion. 	<p>Reclamation Ditch, Tembladero Slough Diversion, Blanco Drain Diversion</p>	<p>Prior to and during project construction</p>	<p>MRWPCA construction contractor and qualified biologist</p>	<p>Prior to and during project construction</p>	<p>MRWPCA qualified biologist</p>

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Mitigation Monitoring and Reporting Program – Pure Water Monterey Groundwater Replenishment Project: Staff-Recommended Alternative**

Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
Impact BT-2: Construction Impacts to Sensitive Habitats (continued)	<p>Mitigation Measure BT-2c: The project proponents in coordination with the contractor shall prepare and implement a Frac-Out Plan to avoid or reduce accidental impacts resulting from horizontal directional drilling (HDD) beneath the Salinas River. The Frac-Out Plan shall address spill prevention, containment, and clean-up methodology in the event of a frac out. The proposed HDD component of the Blanco Drain diversion shall be designed and conducted to minimize the risk of spills and frac-out events. The Frac-Out Plan shall be prepared and submitted to United States Fish and Wildlife Services, California Department of Fish and Wildlife, National Marine Fisheries Services, and the Regional Water Quality Control Board prior to commencement of HDD activities for the Blanco Drain Diversion construction. The following are typical contents of a Frac-Out Plan:</p> <ul style="list-style-type: none"> • Project description, including details of the HDD design and operations • Site description and existing conditions • Potential modes of HDD failure and HDD failure prevention and mitigation • Frac-out prevention measures (including for example, geotechnical investigations, planning for appropriate depths based on those investigations, presence of a qualified engineer during drilling to monitor the drilling process, live adjustments to the pace of drill advancement to ensure sufficient time for cutting and fluid circulation and to prevent or minimize plugging, maintaining the minimum drilling pressure necessary to maintain fluid circulation, etc.) • Monitoring requirements (for example, monitoring pump pressure circulation rate, ground surface and surface water inspection, advancing the drill only during daytime hours, on-site biological resource monitoring by a qualified biologist) • Response to accidental frac-out (including stopping drilling, permitting agency notification, surveying the area, containing the frac-out material, contacting the project biological monitor to identify and relocate species potentially in the area, turbidity monitoring, procedures for clean-up and mitigation of hazardous waste spill materials, preparation of documentation of the event, etc.) <p>Coordination plan and contact list of key project proponents, biological monitor, and agency staff in the event of an accidental frac-out event.</p>	Blanco Drain Diversion	Prior to project construction	MRWPCA, construction contractors	Prior to and during project construction	MRWPCA, USFWS, CDFW, NOAA/NMFS, RWQCB
Impact BT-4: Construction Conflicts with Local Policies, Ordinances, or Approved Habitat Conservation Plan	<p>Mitigation Measure BT-4. HMP Plant Species Salvage. For impacts to the HMP plant species within the Project Study Area that do not require take authorization from USFWS or CDFW, salvage efforts for these species shall be evaluated by a qualified biologist per the requirements of the HMP and BO. A salvage plan shall be prepared and implemented by a qualified biologist, which shall include, but is not limited to: a description and evaluation of salvage opportunities and constraints; a description of the appropriate methods and protocols of salvage and relocation efforts; identification of relocation and restoration areas; and identification of qualified biologists approved to perform the salvage efforts, including the identification of any required collection permits from USFWS and/or CDFW. Where proposed, seed collection shall occur from plants within the Project Study Area and topsoil shall be salvaged within occupied areas to be disturbed. Seeds shall be collected during the appropriate time of year for each species by qualified biologists. At the time of seed collection, a map shall also be prepared that identifies the specific locations of the plants for any future topsoil preservation efforts. The collected seeds shall be used to revegetate temporarily disturbed construction areas and reseeded and restoration efforts on- or off-site, as determined appropriate in the salvage plan.</p>	Product Water Conveyance: RUWAP Pipeline Alignment, and Injection Well Facilities site within the former Fort Ord only	Prior to, during, and after construction	MRWPCA Biologist	During, and after construction	MRWPCA qualified biologist
Impact CR-1: Construction Impacts on Historic Resources	<p>Mitigation Measure CR-1: Avoidance and Vibration Monitoring for Pipeline Installation in the Presidio of Monterey Historic District, and Downtown Monterey. Avoidance and Vibration Monitoring for Pipeline Installation in the Presidio of Monterey Historic District, and Downtown Monterey. (Applies to portion of the CalAm Distribution System: Alternative Monterey Pipeline) CalAm shall construct the section of the Alternative Monterey Pipeline located on Stillwell Avenue within the Presidio of Monterey Historic District, adjacent to the Spanish Royal Presidio, and within the Monterey Old Town National Historic Landmark District (including adjacent to Stokes Adobe, the Gabriel de la Torre Adobe, the Fremont Adobe, Colton Hall, and Friendly Plaza in downtown Monterey)² as close as possible to the centerlines of these streets to: (1) avoid direct impacts to the historic Presidio Entrance Monument, and (2) reduce impacts from construction</p>	Portion of the CalAm Distribution System-Alternative Monterey Pipeline within historic districts and adjacent to historic buildings	During project construction	CalAm, project engineers, construction contractors	During project construction	CalAm and City of Monterey

² A modification to this mitigation measure has been made to clarify its applicability to the Staff-Recommendation Alternative of the GWR Project. Specifically, the text highlighted in gray has been added and the following text deleted: “and within W. Franklin Street in downtown Monterey.” This change to the mitigation measure does not constitute significant new information; it merely clarifies the mitigation for the selected alternative.

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Mitigation Monitoring and Reporting Program – Pure Water Monterey Groundwater Replenishment Project: Staff-Recommended Alternative**

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	<p>vibration to below the 0.12 inches per second (in/sec) peak particle velocity vibration PPV) threshold. If CalAm determines that the pipeline cannot be located near the centerline of these street segments due to traffic concerns or existing utilities, the historic properties identified on Table 4.6-2 of the GWR Project Draft EIR (MRWPCA/DD&A, April 2015) shall be monitored for vibration during pipeline construction, especially during the use of jackhammers and vibratory rollers. If construction vibration levels exceed 0.12 in/sec PPV, construction shall be halted and other construction methods shall be employed to reduce the vibration levels below the standard threshold. Alternative construction methods may include using concrete saws instead of jackhammers or hoe-rams to open excavation trenches, the use of non-vibratory rollers, and hand excavation. If impact sheet pile installation is needed (i.e., for horizontal directional drilling or jack-and-bore) within 80 feet of any historical resource or within 80 feet of a historic district, CalAm shall monitor vibration levels to ensure that the 0.12-in/sec PPV damage threshold is not exceeded. If vibration levels exceed the applicable threshold, the contractor shall use alternative construction methods such as vibratory pile drivers.</p>					
<p>Impact CR-2: Construction Impacts on Archaeological Resources or Human Remains</p>	<p>Mitigation Measure CR-2a: Archaeological Monitoring Plan. Each of the project proponents shall contract 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 construction. Archaeological monitoring shall be conducted for all subsurface excavation work within 100 feet of Presidio #2 in the Presidio of Monterey, and within the areas of known archaeologically sensitive sites in Monterey³. At a minimum, the Archaeological Monitoring Plan shall:</p> <ul style="list-style-type: none"> • Detail the cultural resources training program that shall be completed by all construction and field workers involved in ground disturbance; • Designate the person(s) responsible for conducting monitoring activities, including Native American monitor(s), if deemed necessary; • Establish monitoring protocols to ensure monitoring is conducted in accordance with current professional standards provided by the California Office of Historic Preservation; • Establish the template and content requirements for monitoring reports; • Establish a schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports; • Establish protocols for notifications in case of encountering cultural resources, as well as methods for evaluating significance, developing and implementing a plan to avoid or mitigate significant resource impacts, facilitating Native American participation and consultation, implementing a collection and curation plan, and ensuring consistency with applicable laws including Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code; • Establish methods to ensure security of cultural resources sites; • 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. <p>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 relevant Project proponent 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 agency, or CPUC, for the CalAm Distribution Pipeline. 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.</p>	<p>Lake El Estero Diversion Site and CalAm Distribution System: Alternative Monterey Pipeline</p>	<p>Prior to and during project construction</p>	<p>MRWPCA (for Lake El Estero Diversion only), CalAm, qualified archaeologist</p>	<p>During project construction</p>	<p>MRWPCA, CalAm, qualified archaeologist</p>

³ A modification to this mitigation measure has been made to clarify its applicability to the Staff-Recommendation Alternative of the GWR Project. Specifically, the text highlighted in gray has been added and the following text deleted: “in downtown Monterey on W. Franklin Street between High and Figueroa Streets, and at potentially sensitive archaeological sites at Lake El Estero”

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	<p>If preservation in place is not feasible, the applicable project proponent(s) shall implement an Archaeological Research Design and Treatment Plan (ARDTP). The Lead Archaeologist, Native American representatives, and the State Historic Preservation Office designee 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; 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>Mitigation Measure CR-2b: Discovery of Archaeological Resources or Human Remains. If archaeological resources or human remains are unexpectedly discovered during any construction, work shall be halted within 50 meters (±160 feet) of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented. The County Coroner shall be notified in accordance with provisions of Public Resources Code 5097.98-99 in the event human remains are found and the Native American Heritage Commission shall be notified in accordance with the provisions of Public Resources Code section 5097 if the remains are determined to be of Native American origin.</p> <p>Mitigation Measure CR-2c: Native American Notification. Because of their continuing interest in potential discoveries during construction, all listed Native American Contacts shall be notified of any and all discoveries of archaeological resources in the project area.</p>					
<p>Impact EN-1: Construction Impacts due to Temporary Energy Use</p>	<p>Mitigation Measure EN-1: Construction Equipment Efficiency Plan. MRWPCA (for all components except the CalAm Distribution System) or CalAm (for the Cal Am Distribution System) shall contract a qualified professional (i.e., construction planner/energy efficiency expert) to prepare a Construction Equipment Efficiency Plan that identifies the specific measures that MRWPCA or CalAm (and its construction contractors) will implement as part of project construction to increase the efficient use of construction equipment. 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; a commitment to utilize existing electricity sources where feasible rather than portable diesel-powered generators; consistent compliance with idling restrictions of the state; and identification of procedures (including the use of routing plans for haul trips) that will be followed to ensure that all materials and debris hauling is conducted in a fuel-efficient manner.</p>	<p>All components</p>	<p>Prior to project construction</p>	<p>MRWPCA, CalAm, energy efficiency expert, construction contractors</p>	<p>During project construction</p>	<p>MRWPCA and CalAm</p>
<p>Impact HH-2: Accidental Release of Hazardous Materials During Construction</p>	<p>Mitigation Measure HH-2a: Environmental Site Assessment. If required by local jurisdictions and property owners with approval responsibility for construction of each component, MRWPCA and CalAm shall conduct a Phase I Environmental Site Assessment in conformance with ASTM Standard 1527-05 to identify potential locations where hazardous material contamination may be encountered. If an Environmental Site Assessment indicates that a release of hazardous materials could have affected soil or groundwater quality at a project site, a Phase II environmental site assessment shall be conducted to determine the extent of contamination and to prescribe an appropriate course of remediation, including but not limited to removal of contaminated soils, in conformance with state and local guidelines and regulations. If the results of the subsurface investigation(s) indicate the presence of hazardous materials, additional site remediation may be required by the applicable state or local regulatory agencies, and the contractors shall be required to comply with all regulatory requirements for facility design or site remediation.</p> <p>Mitigation Measure HH-2b: Health and Safety Plan. The construction contractor(s) shall prepare and implement a project-specific Health and Safety Plan (HSP) for each site on which construction may occur, in accordance with 29 CFR 1910 to protect construction workers and the public during all excavation, grading, and construction. The HSP shall include the following, at a minimum:</p> <ul style="list-style-type: none"> • A summary of all potential risks to construction workers and the maximum exposure limits for all known and reasonably foreseeable site 	<p>Lake El Estero Diversion, Product Water Conveyance RUWAP Pipeline Alignment, Injection Well Facilities and the CalAm Distribution System: Alternative Monterey Pipeline</p>	<p>Prior to project construction (if presence of hazardous materials is identified, site remediation or design changes may be required)</p>	<p>MRWPCA and CalAm project engineers, construction contractors</p>	<p>Only needed until owner/contractor deems each construction site is deemed safe for required construction</p>	<p>MRWPCA and CalAm</p>
		<p>Lake El Estero Diversion, Product Water Conveyance RUWAP Pipeline</p>	<p>Prior to project construction</p>	<p>Construction contractors</p>	<p>During project construction</p>	<p>MRWPCA, CalAm, Monterey County Dept. of Environmental</p>

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	<p>chemicals (the HSP shall incorporate and consider the information in all available existing Environmental Site Assessments and remediation reports for properties within ¼-mile using the EnviroStor Database);</p> <ul style="list-style-type: none"> Specified personal protective equipment and decontamination procedures, if needed; Emergency procedures, including route to the nearest hospital; <p>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; and</p> <p>The identification and responsibilities of a site health and safety supervisor.</p>	<p>Alignment , the Injection Well Facilities, and the CalAm Distribution System: Alternative Monterey Pipeline</p>				<p>Health</p>
	<p>Mitigation Measure HH-2c: Materials and Dewatering Disposal Plan. MRWPCA and CalAm and/or their contractors shall develop a materials disposal plan specifying how the contractor will remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The plan must identify the disposal method for soil and the approved disposal site, and include written documentation that the disposal site will accept the waste. For areas within the Seaside munitions response areas called Site 39 (coincident with the Injection Well Facilities component), the materials disposal plans shall be reviewed and approved by FORA and the City of Seaside. The contractor shall develop a groundwater dewatering control and disposal plan specifying how the contractor will remove, handle, and dispose of groundwater impacted by hazardous substances in a safe, appropriate, and lawful manner. The plan must identify the locations at which potential contaminated groundwater dewatering are likely to be encountered (if any), 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 General WDRs for Discharges with a Low Threat to Water Quality (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. The contractor can either dispose of the contaminated effluent at a permitted waste management facility or discharge the effluent, under permit, to the Regional Treatment Plant.</p>	<p>Lake El Estero Diversion, Product Water Conveyance: RUWAP Pipeline Alignment , the Injection Well Facilities, and the CalAm Distribution System: Alternative Monterey Pipeline</p>	<p>Prior to and during project construction</p>	<p>MRWPCA, CalAm, construction contractors</p>	<p>During project construction</p>	<p>MRWPCA and CalAm; FORA and the City of Seaside for areas within Site 39</p>
<p>Impact HS-4: Operational Surface Water Quality Impacts due to Source Water Diversions</p>	<p>Mitigation Measure HS-4: Management of Surface Water Diversion Operations. Rapid, imposed water-level fluctuations shall be avoided when operating the Reclamation Ditch Diversion pumps to minimize erosion and failure of exposed (or unvegetated), susceptible banks. This can be accomplished by operating the pumps at an appropriate flow rate, in conjunction with commencing operation of the pumps only when suitable water levels or flow rates are measured in the water body. Proper control shall be implemented to ensure that mobilized sediment would not impair downstream habitat values and to prevent adverse impacts due to water/soil interface adjacent to the Reclamation Ditch and Tembladero Slough. During planned routine maintenance at the Reclamation Ditch Diversion, maintenance personnel shall inspect the diversion structures within the channel for evidence of any adverse fluvial geomorphological processes (for example, undercutting, erosion, scour, or changes in channel cross-section). If evidence of any substantial adverse changes is noted, the diversion structure shall be redesigned and the project proponents shall modify it in accordance with the new design.</p>	<p>Reclamation Ditch Diversion</p>	<p>During project operations</p>	<p>MRWPCA</p>	<p>During project operations</p>	<p>MRWPCA</p>
<p>Cumulative impacts to marine water quality</p>	<p>Mitigation Measure HS-C: Implement Measures to Avoid Exceedances over Water Quality Objectives at the Edge of the Zone of Initial Dilution (ZID). As part of the amendment process to modify the existing MRWPCA NPDES Permit (Order No. R3-2014-0013, NPDES Permit No. CA0048551) per 40 Code of Regulations Part 122.62, it would be necessary to conduct an extensive assessment in accordance with requirements to be specified by the RWQCB. It is expected that the assessment would include, at a minimum, an evaluation of the minimum probable initial dilution at the point of discharge based on likely discharge scenarios and any concomitant impacts on water quality and beneficial uses per the Ocean Plan. Prior to operation of the MPSWP desalination plant, the discharger(s) will be required to test the MPSWP source water in accordance with protocols approved by the RWQCB. If the water quality assessment indicates that the water at the edge of the ZID will exceed the Ocean Plan water quality objectives, the MRWPCA will not accept the desalination brine discharge at its outfall, and the following design features and/or operational measures shall be employed, individually or in combination, to reduce the concentration of</p>	<p>Ocean discharges upon implementation of cumulative project (specifically, the MPWSP with 6.4 mgd desalination plant)</p>	<p>Prior to operation of the MPWSP (with 6.4 mgd desalination plant)</p>	<p>MRWPCA</p>	<p>During operations of the MPWSP with 6.4 mgd desalination plant</p>	<p>MRWPCA (under regulations by the RWQCB)</p>

**Exhibit B.
Mitigation Monitoring and Reporting Program – Pure Water Monterey Groundwater Replenishment Project: Staff-Recommended Alternative**

Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
	<p>constituents to below the Ocean Plan water quality objectives at the edge of the ZID:</p> <ul style="list-style-type: none"> • Additional pre-treatment of MPWSP source water at the Desalination Plant: Feasible methods to remove PCBs and other organic compounds from the MPWSP source water at the desalination plant include additional filtration or use of granular activated carbon (GAC). GAC acts as a very strong sorbent and can effectively remove PCBs and other organic compounds from the desalination plant source water (Luthy, Richard G., 2015). • Treatment of discharge at the Desalination Plant: Feasible methods to remove residual compounds from the discharge to comply with water quality objectives at the edge of the ZID are use of GAC (similar to that under the additional pre-treatment of MPWSP source water) and advanced oxidation with ultraviolet light with concurrent addition of hydrogen peroxide. The method of using advanced oxidation with ultraviolet light with concurrent addition of hydrogen peroxide is used for the destruction of a variety of environmental contaminants such as synthetic organic compounds, volatile organic compounds, pesticides, pharmaceuticals and personal care products, and disinfection byproducts. This process is energy intensive, but requires a relatively small construction footprint. • Short-term storage and release of brine at the Desalination Plant: When sufficient quantities of treated wastewater from the Regional Treatment Plant to prevent an exceedance of Ocean Plan objectives at the edge of the ZID are not available, brine from the desalination plant would be temporarily stored at the MPWSP site in the brine storage basin,23 and discharged (pumped) in pulse flows (up to the capacity of the existing outfall), such that the flow rate allows the discharge to achieve a dilution level that meets Ocean Plan water quality objectives at the edge of the ZID. • Biologically Active Filtration at the Regional Treatment Plant: As part of the proposed AWT Facility at the Regional Treatment Plant, the GWR Project includes the potential for use of upflow biologically active filtration following ozone treatment to reduce the concentration of ammonia and residual organic matter present in the ozone effluent and to reduce the solids loading on the membrane filtration process. The biologically active filtration system would consist of gravity-feed filter basins with approximately 12 feet of granular media, and a media support system. Ancillary systems would include an alkalinity addition system for pH control, backwash waste water basin (also used for membrane filtration backwash waste water), backwash pumps, an air compressor and supply system for air scour, an air compressor and supply system for process air, and a wash water basin to facilitate filter backwashing (the wash water basin may be combined with the membrane filtration flow equalization basin). This biologically active filtration system may be needed to meet Ocean Plan water quality objectives at the edge of the ZID (if and/or when discharges from the Project are combined with discharges from the MPWSP with 6.4 million gallon per day, or mgd, desalination plant). This optional component of the Project is described in Chapter 2, Project Description (see Section 2.8.1.3), would become a required process if the MPWSP with 6.4 mgd desalination project is in operation and the other components of the mitigation do not achieve Ocean Plan compliance. 					
<p>Impact LU-1: Temporary Farmland Conversion during Construction</p>	<p>Mitigation Measure LU-1: Minimize Disturbance to Farmland. To support the continued productivity of designated Prime Farmland and Farmland of Statewide Importance, the following provisions shall be included in construction contract specifications:</p> <ul style="list-style-type: none"> • Construction contractor(s) shall minimize the extent of the construction disturbance, including construction access and staging areas, in designated important farmland areas. • Prior to the start of construction, the construction contractor(s) shall mark the limits of the construction area and ensure that no construction activities, parking, or staging occur beyond the construction limits. • Upon completion of the active construction, the site shall be restored to pre-construction conditions. 	<p>Salinas Treatment Facility and a portion of the Blanco Drain Diversion</p>	<p>During project construction</p>	<p>Construction contractor</p>	<p>During project construction</p>	<p>MRWPCA</p>
<p>Impact LU-2: Operational Consistency with Plans,</p>	<p>See the following mitigation measures: AQ-1, BF-1a, BF-1b, BF-1c, BF-2a or Alternate BF-2a, BT-1a through BT-1q, BT-2a through BT-2c, CR-2a through CR-2c, EN-1, NV-1a through NV-1d, NV-2a, NV-2b, PS-3, TR-2, TR-3, and TR-4.</p>	<p>All components</p>	<p>See other rows for specific timing of each mitigation</p>	<p>See other lines for responsibilities for each</p>	<p>See other rows for specific timing of</p>	<p>See other rows for responsibilities for each mitigation measure</p>

**Exhibit B.
Mitigation Monitoring and Reporting Program – Pure Water Monterey Groundwater Replenishment Project: Staff-Recommended Alternative**

Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
Policies, and Regulations			measure	mitigation measure	each mitigation measure	
Cumulative impacts to marine biological resources	Mitigation Measure MR-C. Implement Measures to Avoid Exceedances over Water Quality Objectives at the Edge of the Zone of Initial Dilution. Implement Mitigation Measure HS-C above.	Ocean discharges upon implementation of cumulative project (specifically, the MPWSP with 6.4 mgd desalination plant)	Prior to operation of MPWSP (with 6.4 mgd desalination plant)	MRWPCA	During operations of the MPWSP with 6.4 mgd desalination plant	MRWPCA (under regulations by the RWQCB)
Impact NV-1: Construction Noise	Mitigation Measure NV-1a: Drilling Contractor Noise Measures. Contractor specifications shall include a requirement that drill rigs located within 700 feet of noise-sensitive receptors shall be equipped with noise reducing engine housings or other noise reducing technology and the line of sight between the drill rig and nearby sensitive receptors shall be blocked by portable acoustic barriers and/or shields to reduce noise levels such that drill rig noise levels are no more 75 dBA (or, A-Weighted Sound Level) at 50 feet. This would reduce the nighttime noise level to less than 60 dBA Leq (Equivalent Noise Level) at the nearest residence. The contractor shall submit to the MRWPCA and the Seaside Building Official, a “Well Construction Noise Control Plan” for review and approval. The plan shall identify all feasible noise control procedures that would be implemented during night-time construction activities. At a minimum, the plan shall specify the noise control treatments to achieve the specified above noise performance standard.	Injection Well Facilities	Prior to and during project construction	Construction contractors	During project construction	MWRPCA, Seaside building official
	Mitigation Measure NV-1b: Monterey Pipeline Noise Control Plan for Nighttime Pipeline Construction. 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.	CalAm Distribution System: Alternative Monterey Pipeline	Prior to project construction	CalAm	During project construction	CalAm, CPUC and City of Monterey
	Mitigation Measure NV-1c: Neighborhood Notice. Residences and other sensitive receptors within 900 feet of a nighttime construction area shall be notified of the construction location and schedule in writing, at least two weeks 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. The contractor shall designate a noise disturbance coordinator who would be responsible for responding to complaints regarding construction noise. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the noise disturbance coordinator shall be conspicuously placed on construction site fences and included in the construction schedule notification sent to nearby residences. The notice to be distributed to residences and sensitive receptors shall first be submitted, for review and approval, to the MRWPCA and city and county staff as may be required by local regulations.	Injection Well Facilities and CalAm Distribution System: Alternative Monterey Pipeline	Prior to project construction	MRWPCA, CalAm, construction contractor, noise disturbance coordinator	Prior to project construction	MRWPCA and CalAm

Exhibit B.
Mitigation Monitoring and Reporting Program – Pure Water Monterey Groundwater Replenishment Project: Staff-Recommended Alternative

Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
	<p>Mitigation Measure NV-1d: RUWAP Pipeline Construction Noise. The following measures will be implemented by the project proponents in response to comments from the Marina Coast Water District for the RUWAP alignment option of the Product Water Conveyance Pipeline:</p> <ul style="list-style-type: none"> The construction contractor shall limit exterior construction related activities to the hours of restriction consistent with the noise ordinance of, and encroachment permits issued by, the relevant land use jurisdictions. The contractor shall locate all stationary noise-generating equipment as far as possible from nearby noise-sensitive receptors. Where possible, noise generating equipment shall be shielded from nearby noise-sensitive receptors by noise-attenuating buffers. Stationary noise sources located 500 feet from noise-sensitive receptors shall be equipped with noise reducing engine housings. Where possible and required by the local jurisdiction, portable acoustic barriers shall be placed around stationary noise generating equipment that is located less than 200 feet from noise-sensitive receptors. The contractor shall assure that construction equipment powered by gasoline or diesel engines have sound control devices at least as effective as those provided by the original equipment manufacturer (OEM). No equipment shall be permitted to have an unmuffled exhaust. The contractor shall assure that noise-generating mobile equipment and machinery are shut-off when not in use. <p>Residences within 500 feet of a construction area shall be notified of the construction schedule in writing, prior to construction. The project proponent(s) and contractor shall designate a noise disturbance coordinator who would be responsible for responding to complaints regarding construction noise. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the noise disturbance coordinator shall be conspicuously placed on construction site fences and written into the construction notification schedule sent to nearby residences.</p>	RUWAP Pipeline Alignment	Prior to project construction	MRWPCA, construction contractor, noise disturbance coordinator	Prior to project construction	MRWPCA
Impact NV-2: Construction Noise That Exceeds or Violate Local Standards	<p>Mitigation Measure NV-2a: Construction Equipment. Contractor specifications shall include a requirement that the contractor shall:</p> <ul style="list-style-type: none"> Assure that construction equipment with internal combustion engines has sound control devices at least as effective as those provided by the original equipment manufacturer. No equipment shall be permitted to have an un-muffled exhaust. 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 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 stationary noise sources (e.g., generators, air compressors) as far from nearby noise-sensitive receptors as possible. For Product Water Conveyance pipeline segments within the City of Marina, noise controls shall be sufficient to not exceed 60 decibels for more than twenty-five percent of an hour. 	Reclamation Ditch Diversion, Tembladero Slough Diversion, Blanco Drain Diversion, Product Water Conveyance: (RUWAP Pipeline) segments within the City of Marina and RUWAP Booster Station	During project construction	MRWPCA construction contractor	During project construction	MRWPCA
	<p>Mitigation Measure NV-2b: Construction Hours. The construction contractor shall limit all noise-producing construction activities within the City of Marina to between the hours of 7:00 AM and 7:00 PM on weekdays and between 9:00 AM and 7:00 PM Saturdays.</p>	Product Water Conveyance: RUWAP Pipeline and Booster Pump Station in Marina	During project construction	Construction contractor	During project construction	MRWPCA
Impact PS-3: Construction Solid Waste Policies and Regulations	<p>Mitigation Measure PS-3: Construction Waste Reduction and Recycling Plan. The construction contractor(s) shall prepare and implement a construction waste reduction and recycling plan identifying the types of construction 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</p>	All components	Prior to, during, and after project construction	MRWPCA and CalAm construction contractors	Upon project completion	MRWPCA and CalAm

**Exhibit B.
Mitigation Monitoring and Reporting Program – Pure Water Monterey Groundwater Replenishment Project: Staff-Recommended Alternative**

Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
	Standards Code and local regulations, the plan shall specify that all trees, stumps, rocks, and associated vegetation and soils, and 50% 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, MRWPCA and CalAm shall collect the receipts from the contractor(s) to document that the waste reduction, recycling, and diversion goals have been met.					
Impact TR-2: Construction-Related Traffic Delays, Safety and Access Limitations	<p>Mitigation Measure TR-2: Traffic Control and Safety Assurance Plan. Prior to construction, MRWPCA and/or its contractor shall prepare and implement a traffic control plan or plans for the roadways and intersections affected by MRWPCA construction (Product Water Conveyance Pipeline) and CalAm shall prepare and implement a traffic control plan for the roadways and intersections affected by the CalAm Distribution System Improvements (Transfer and Monterey pipelines). The traffic control plan(s) shall comply with the affected jurisdiction’s encroachment permit requirements and will be based on detailed design plans. 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 access; 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 would be maintained. 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> <p><i>General</i></p> <p>a. Develop circulation and detour plans to minimize impacts on local streets. As necessary, signage and/or flaggers shall be used to guide vehicles to detour routes and/or through the construction work areas.</p> <p>b. 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 lane closures shall be published in local newspapers and on available websites to allow motorists to select alternative routes.</p> <p><i>Roadways</i></p> <p>c. Haul routes that minimize truck traffic on local roadways and residential streets shall be used to the extent feasible.</p> <p>d. Schedule truck trips outside of peak morning and evening commute hours to minimize adverse impacts on traffic flow.</p> <p>e. Limit lane closures during peak hours. Travel lane closures, when necessary, shall be managed such that one travel lane is kept open at all times to allow alternating traffic flow in both directions along affected two-lane roadways. In the City of Marina, one-way traffic shall be limited to a maximum of 5 minutes of traffic delay.</p> <p>f. 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.</p> <p>g. 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 plan.</p> <p>h. 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.</p> <p>i. Maintain access to private driveways.</p> <p>j. Coordinate with MST so the transit provider can temporarily relocate bus routes or bus stops in work zones as deemed necessary.</p> <p><i>Pedestrian and Bicyclists</i></p> <p>k. 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.</p> <p><i>Recreational Trails</i></p> <p>l. At least two weeks prior to construction, post signage along all potentially affected recreational trails; Class I, II, and II bicycle routes; and pedestrian pathways, including the Monterey Peninsula Recreational Trail, to warn bicyclists and pedestrians of construction activities. The</p>	Product Water Conveyance: RUWAP Pipeline and CalAm Distribution System: Alternative Monterey Pipeline	Prior to project construction	MRWPCA and CalAm construction contractor	During project construction	MRWPCA, CalAm, and local jurisdictions

Exhibit B.
Mitigation Monitoring and Reporting Program – Pure Water Monterey Groundwater Replenishment Project: Staff-Recommended Alternative

Impacts	Mitigation Measures	Applicable Components	Timing of Implementation	Implementation Responsibility ¹	Timing of Monitoring	Responsibility for Compliance Monitoring ¹
	<p>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, MRWPCA or either of its contractors shall retrieve all notice materials.</p> <p><i>Emergency Access</i></p> <p>m. 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.</p> <p>n. 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.</p> <p>o. Avoid truck trips through designated school zones during the school drop-off and pickup hours.</p>					
<p>Impact TR-3: Construction-Related Roadway Deterioration</p>	<p>Mitigation Measure TR-3: Roadway Rehabilitation Program. Prior to commencing project construction, MRWPCA (for all components other than the CalAm Distribution System Improvements) and CalAm (for CalAm Distribution System Improvements) shall detail the preconstruction condition of all local construction access and haul routes proposed for substantial use by project-related construction vehicles. The construction routes surveyed must be consistent with those identified in the construction traffic control and safety assurance plan developed under Mitigation Measure TR-2. After construction is completed, the same roads shall be surveyed again to determine whether excessive wear and tear or construction damage has occurred. Roads damaged by project-related construction vehicles shall be repaired to a structural condition equal to, or greater than, that which existed prior to construction activities. In the City of Marina, the construction in the city rights-way must comply with the City’s design standards, including restoration of the streets from curb to curb, as applicable. In the City of Monterey, asphalt pavement of full travel lanes will be resurfaced without seams along wheel or bike paths.</p>	<p>All components</p>	<p>Prior to project construction, after project construction</p>	<p>MRWPCA and CalAm construction contractors</p>	<p>After project construction</p>	<p>MRWPCA, CalAm, and local jurisdictions</p>
<p>Impact TR-4: Construction Parking Interference</p>	<p>Mitigation Measure TR-4: Construction Parking Requirements. Prior to commencing project construction, the construction contractor(s) shall coordinate with the potentially affected jurisdictions to identify designated worker parking areas that would avoid or minimize parking displacement in congested areas of Marina, Seaside, and downtown Monterey. The contractors shall provide transport between the designated parking location and the construction work areas. The construction contractor(s) shall also provide incentives for workers that carpool or take public transportation to the construction work areas. The engineering and construction design plans shall specify that contractors limit time of construction within travel lanes and public parking spaces and provide information to the public about locations of alternative spaces to reduce parking disruptions.</p>	<p>Product Water Conveyance: RUWAP Pipeline Alignment in Marina and Seaside and CalAm Distribution System: Alternative Monterey Pipeline</p>	<p>Prior to project construction</p>	<p>MRWPCA and CalAm construction contractor</p>	<p>During project construction</p>	<p>MRWPCA City of Marina, City of Seaside, City of Monterey</p>

**Appendix F – Documents Related to Consultation with
USFWS to Date**

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Pure Water Monterey
A Groundwater Replenishment Project

UNITED STATES FISH AND WILDLIFE SERVICE
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
COORDINATION MEETING
JANUARY 14, 2016



Meeting Purpose

- Explain Pure Water Monterey Project for USFWS and CDFW staff
 - Regional Context, Background, Purpose/Need
 - Overall Project and Components
 - Present Species of Interest to USFWS & CDFW
- Questions & Discussion

Agenda / Outline

1. Introductions / Roles & Responsibilities
2. Pure Water Monterey Project
 - Regional Context, Purpose/Need
 - Pure Water Monterey Overview and Key Components
3. Species of Concern
4. Avoidance and Minimization Measures
5. Questions and Discussion



Introductions: Pure Water Team

LOCAL AGENCIES

Monterey Reg. Pollution Control Agency

Bob Holden

Mike McCullough (Invited)

Monterey Pen. Water Mgmt. District

Larry Hampson

Monterey County Water Resources Agency

Shaunna Juarez

Elizabeth Krafft

CONSULTANTS

Denise Duffy & Associates

Denise Duffy

Alison Imamura

Matt Johnson

Diana Staines

Schaaf and Wheeler

Andy Sterbenz

HDR

William Snider



Introductions: Federal and State Agency Partners

USFWS

Jacob Martin
Douglass Cooper (Invited)

CDFW

Annette Tenneboe
Nancee Murray
Brandon Sanderson

USACOE

Janelle Leeson

USEPA

Josh Amaris

State Water Resources Control Board

Susan Stewart
Justine Herrig
Ahmad Kashkoli
Jeff Wetzel
Parker Thaler (Invited)
Erin Ragazzi (Invited)



Pure Water Monterey
A Sustainable Watershed Program

Overview of Pure Water Monterey Project

- ***Integrates regional water issues:*** Northern Monterey County (multi-agency, multi-benefit, broad geographic area)
- ***Helps achieve State policies:*** water supply/stormwater planning, climate change, water quality, groundwater sustainability
- ***Is innovative and reliable:*** Proposes to recycle diversified sources-industrial wastewater, urban and agric. drainage/runoff
- ***Complies with State Orders:*** Uses purified recycled water for groundwater recharge; offsets Carmel River diversions by 3,500 acre-feet per year (AFY)
- ***Reduces seawater intrusion in Salinas Valley:*** Augments agricultural supply by 4,000 to 5,000 AFY to offset pumping

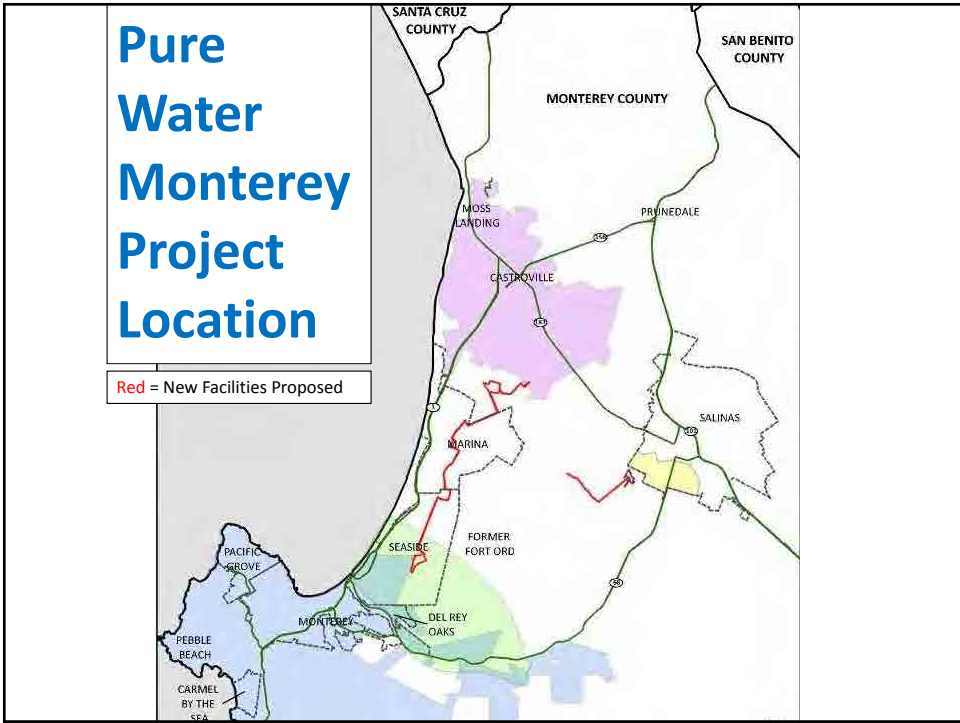


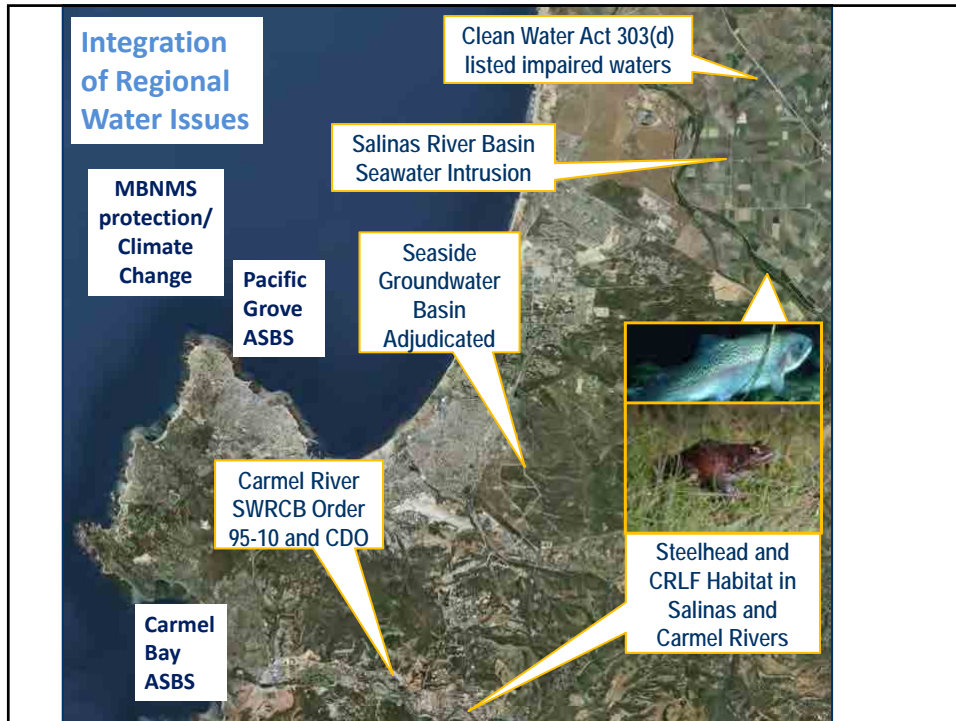
Pure Water Monterey
A Sustainable Watershed Program

Regional Context



Pure Water Monterey
A Sustainable Water Treatment Plant






Why Pure Water Monterey?

Primary Objective

SWRCB Cease and Desist Order (WR 2009-0060)
(stemming from SWRCB Order 95-10)

Pure Water Monterey can offset Cal-Am's Carmel River diversions by 3,500 AFY; thereby *Restoring Carmel River Habitat*

Can be implemented ~2 to 3 years sooner than other proposed replacement supplies



Pure Water Monterey
A Sustainable Water Solutions Project

Why Pure Water Monterey? Secondary Objectives

- Reduces Salinas Valley groundwater pumping by augmenting recycled water for growers
- Reduces Monterey Bay wastewater discharges
- Reduces urban and agricultural pollutant loads to lower Salinas watersheds and Monterey Bay
- Minimizes new electricity use & climate impacts for new water supplies (vs. desalination)



Pure Water Monterey
A Sustainable Water Solutions Project

Overview of Pure Water Project



Pure Water Monterey
A Sustainable Water Solutions Project

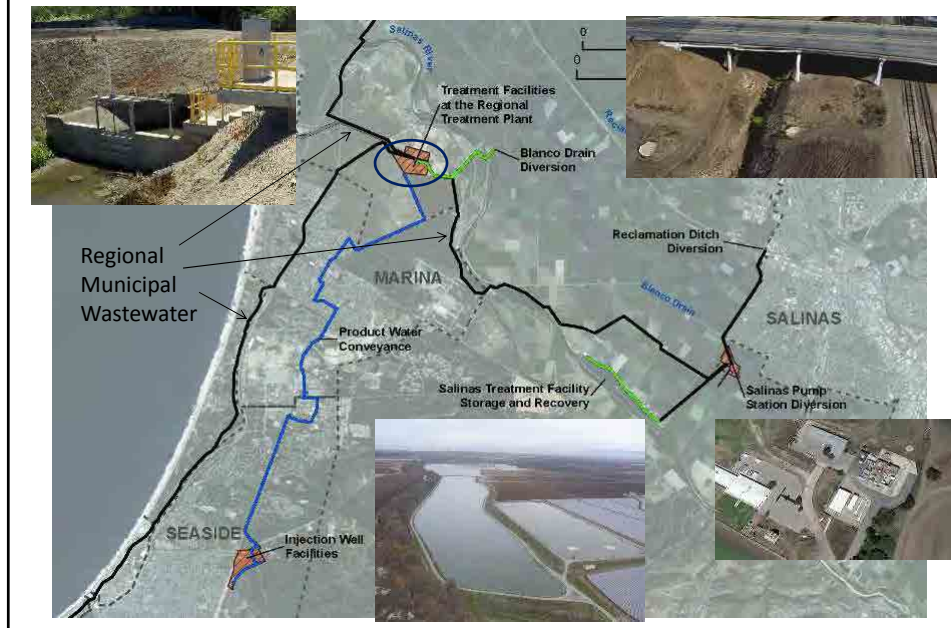
Key Project Components

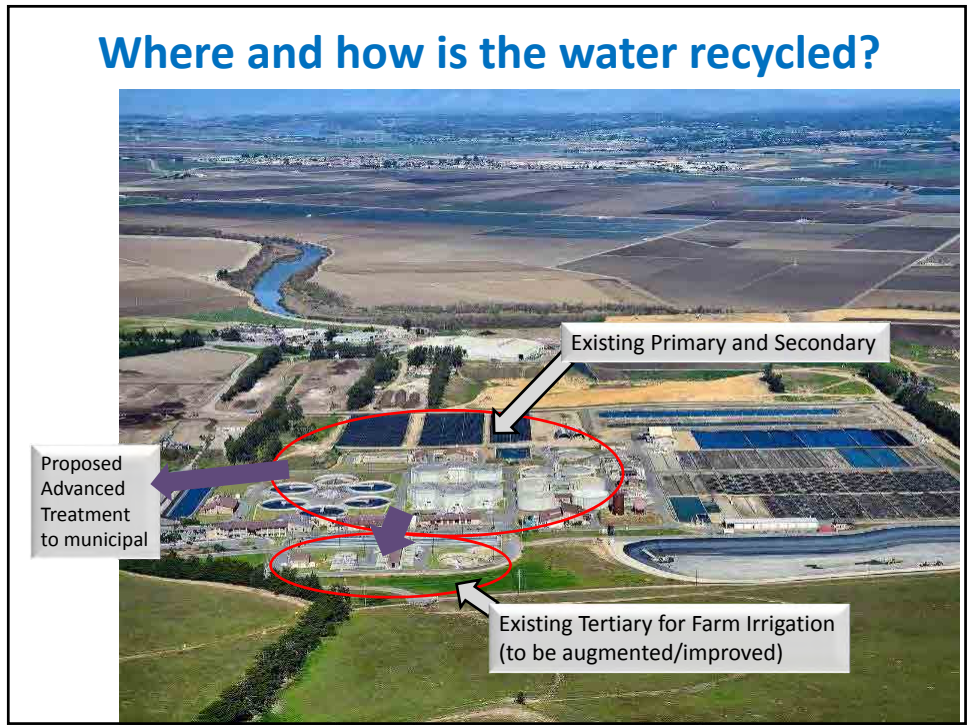
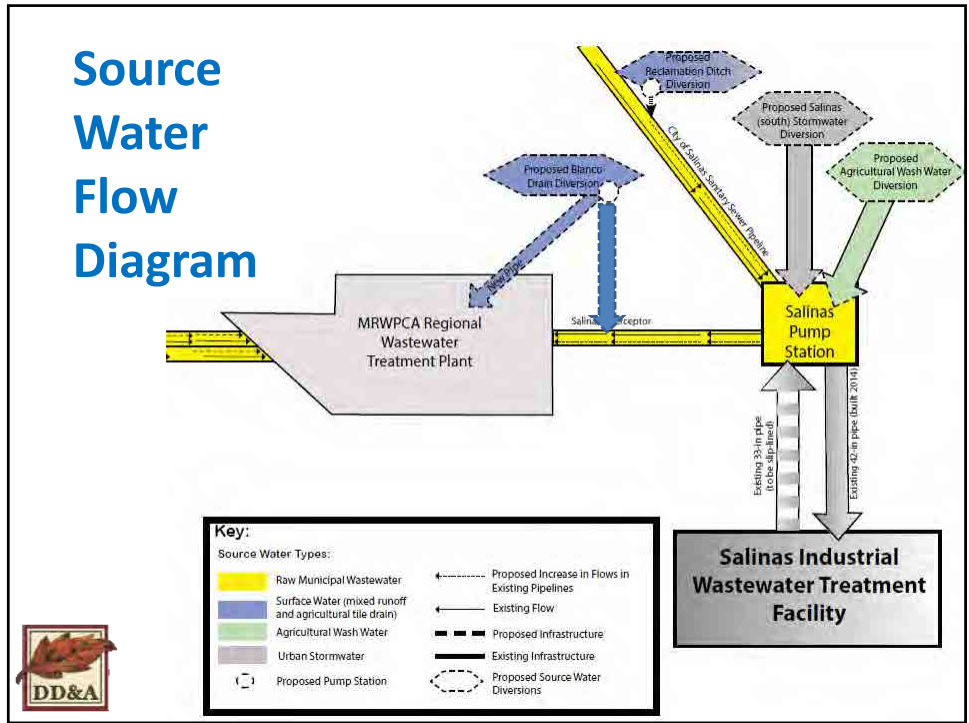
- **Source Water:** Develop new water sources and convey them to the MRWPCA Regional Treatment Plant (RTP)
- **Advanced Treatment:** Produce 3,500 AFY of purified recycled water per SWRCB-DDW Groundwater Recharge Regulations
- **Injection:** Subsurface injection into Seaside GW Basin for extraction and delivery through the CalAm system, off-setting existing use of Carmel River water on a 1:1 basis
- **Recycled water for farmland:** Increase CSIP supplies by 4,000 to 5,000 AFY & reduce Salinas GWR pumping in peak months and winter

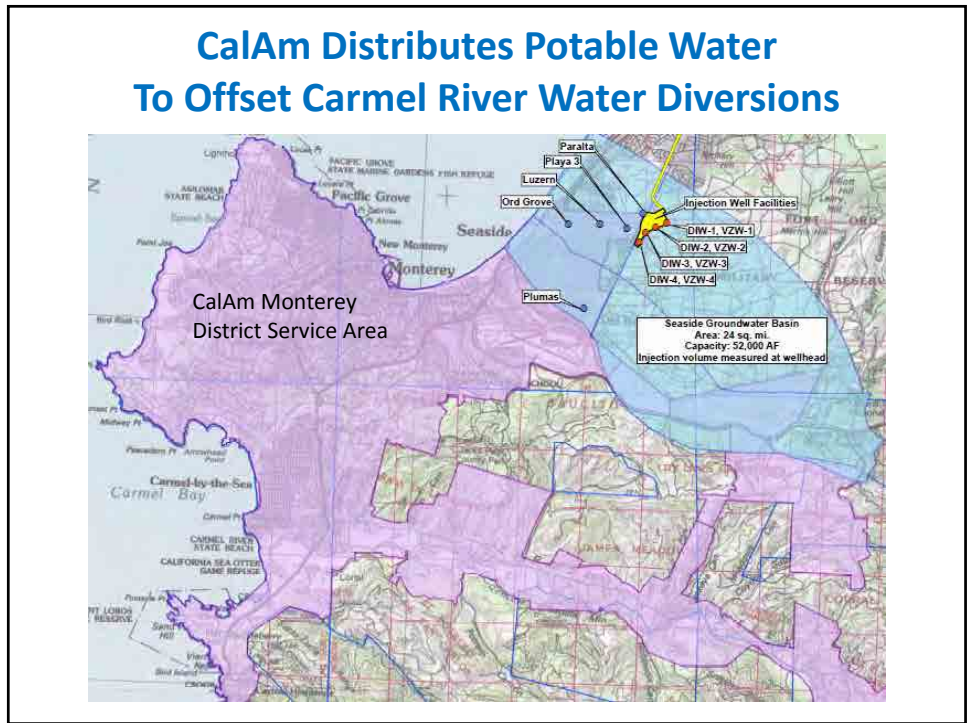
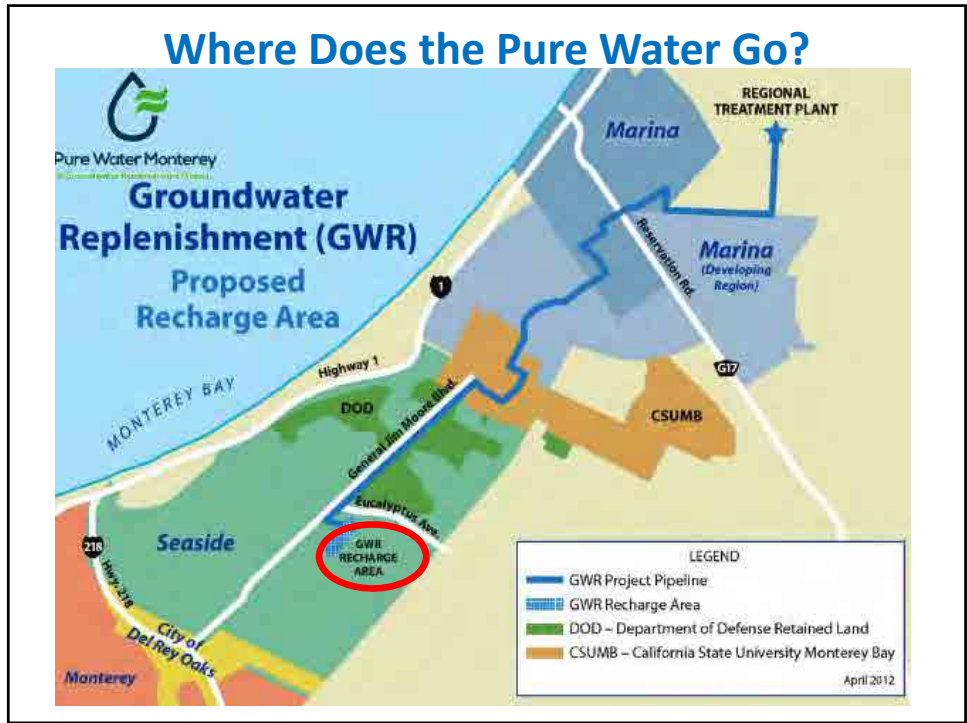


Pure Water Monterey
A Sustainable Water Management Program

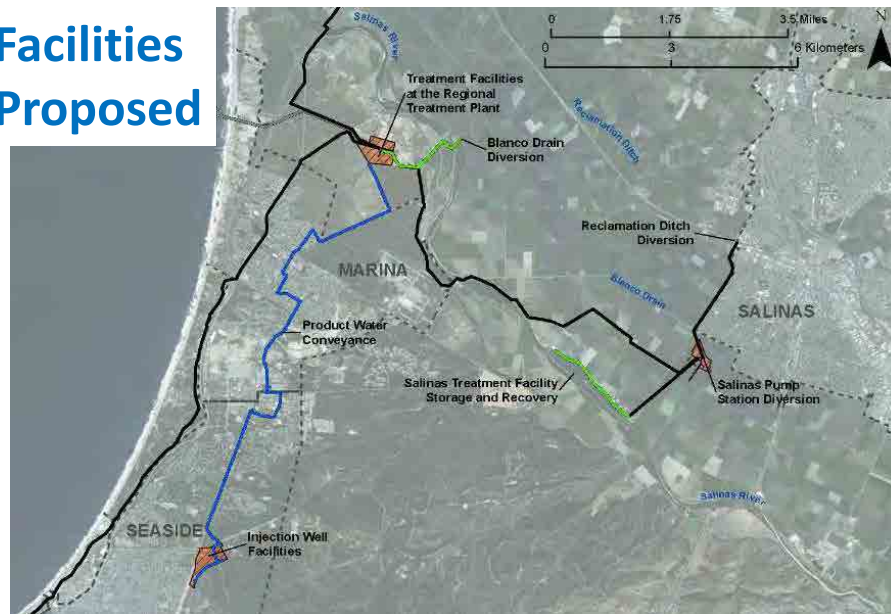
Where does water come from?







New Facilities Proposed



Project Approved by MRWPCA Board on October 8, 2015

- MRWPCA certified the EIR
- Notice of Determination posted and no CEQA legal challenges filed
- Board approved the Project and selected “RUWAP” Product Water Conveyance alignments

Project for Federal Actions/Permitting

Funding and first phase permit applications include recycling of some source waters, not all in the EIR:

- Municipal Wastewater
- Agricultural Wash Water
- Urban and Agricultural Runoff:
 - (1) Salinas Stormwater
 - (2) Reclamation Ditch
 - (3) Blanco Drain

NOTE: Tembladero Slough & Lake El Estero Waters not included in first phase due to cost, permitting, and other constraints.



CalAm Desalination Project (Monterey Peninsula Water Supply Project)

- Pure Water Monterey is independent project that reduces desal size (9.6 to 6.4 mgd)
- CalAm Distribution Pipelines in PWM EIR not part of Proposed Action or Permitting
- CalAm proposes use of MRWPCA ocean outfall to dispose brine from reverse osmosis system
- MPWSP funding and permitting process awaiting completion of joint EIR/EIS (draft in progress)
- Pure Water Monterey can be implemented sooner; improving flows in Carmel River potentially by 2018



Federal Actions

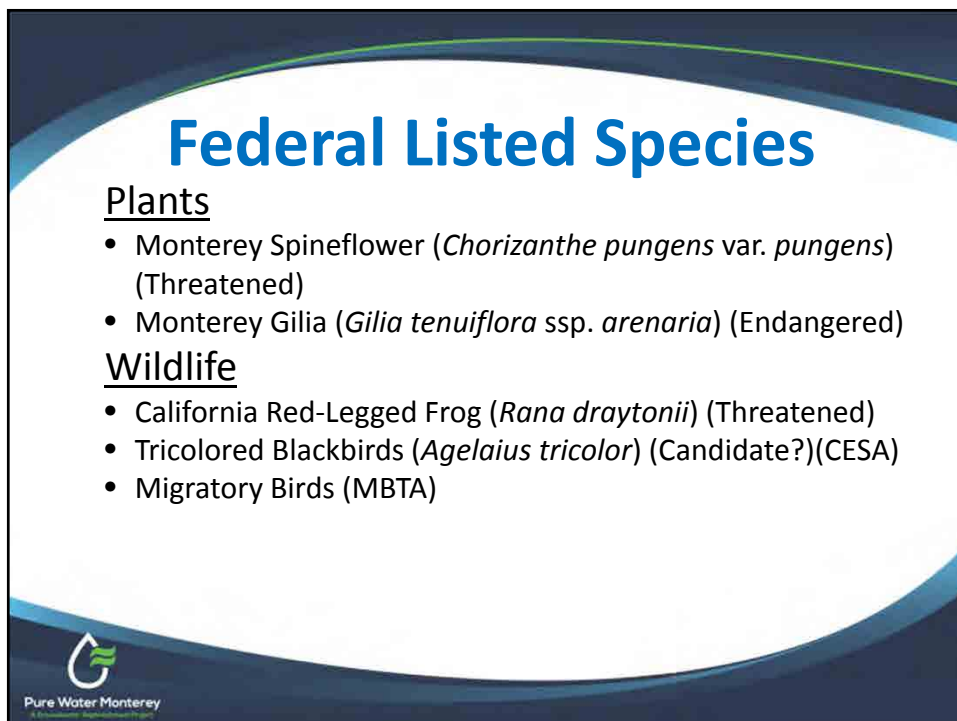
- Clean Water State Revolving Fund loan partially funded by U.S. EPA – federal law compliance required (agency listed)
 - Endangered Species Act §7 (USFWS/NOAA NMFS)
 - National Historic Preservation Act §106 (SHPO)
 - Clean Water Act §404/401 (USACOE/SWRCB)
- Per SWRCB/U.S. EPA/USACOE; USEPA will act as federal lead action agency for ESA §7 consultation – Josh Amaris



State Approvals

- For Reclamation Ditch and Blanco Drain Diversions:
 - Water Rights Application for Reclamation Ditch and Blanco Drain (#32263A and 32263B)
 - Water Quality Certification (§401) from SWRCB
 - Streambed Alteration Agreement (§1602) from CDFW
- For groundwater replenishment of recycled water: Waste Discharge/Water Recycling Requirements approval (SWRCB-DDW & RWQCB)
- For treatment by-product: Modifications to NPDES/WDR
- For Salinas River pipe HDD: State Lands Commission Lease
- For Construction Activities (Stormwater, Low Threat Discharges): NPDES General Permits/WDR





Monterey Spineflower



- 27 known CNDDDB Occurrences in 16 Quadrangles Analyzed
- Identified during Rare Plant Survey:
 - Product Water Conveyance Alignment (0.1 acre)
 - Injection Well Facilities Site (0.1 acre)
- High potential for occurrence within portion of Injection Well Facilities site
- Critical Habitat exists for this species but is not within the Action Area
- Fort Ord HMP Species

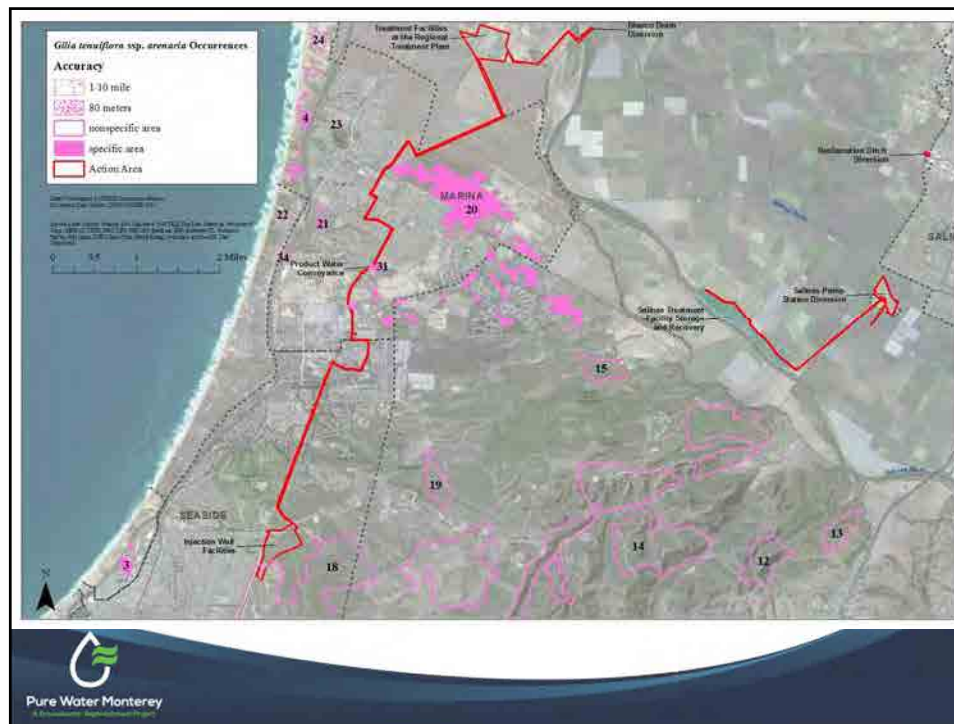




Monterey Gilia

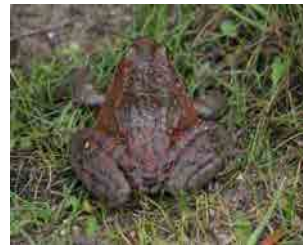
- 29 known CNDDB Occurrences within 16 quadrangles analyzed
- High potential for occurrence in portion of Injection Well Facilities site
- Fort Ord HMP species

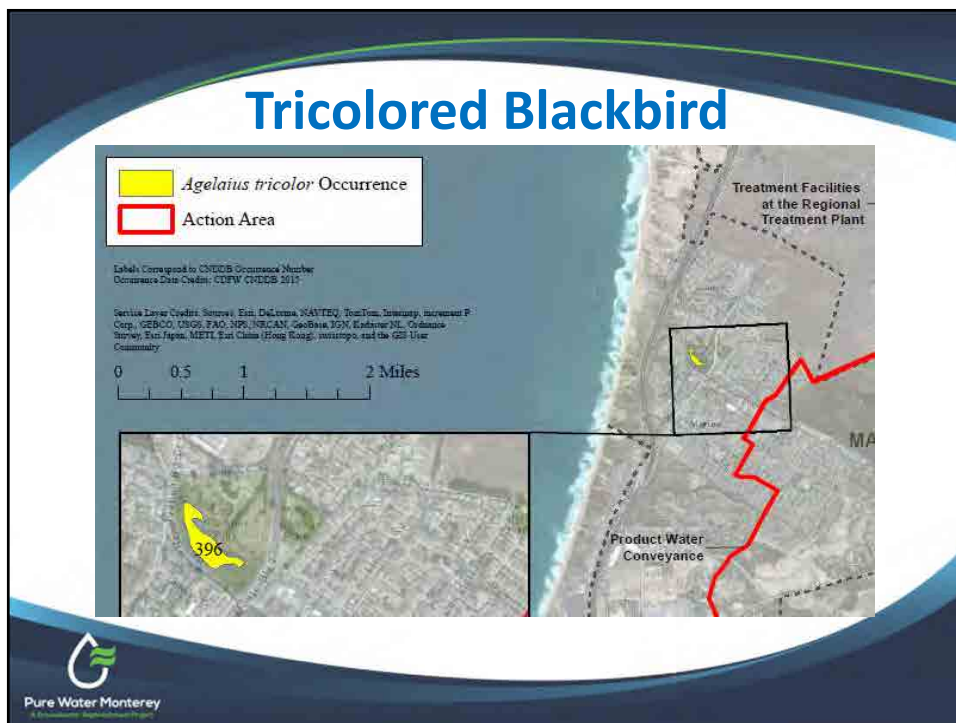


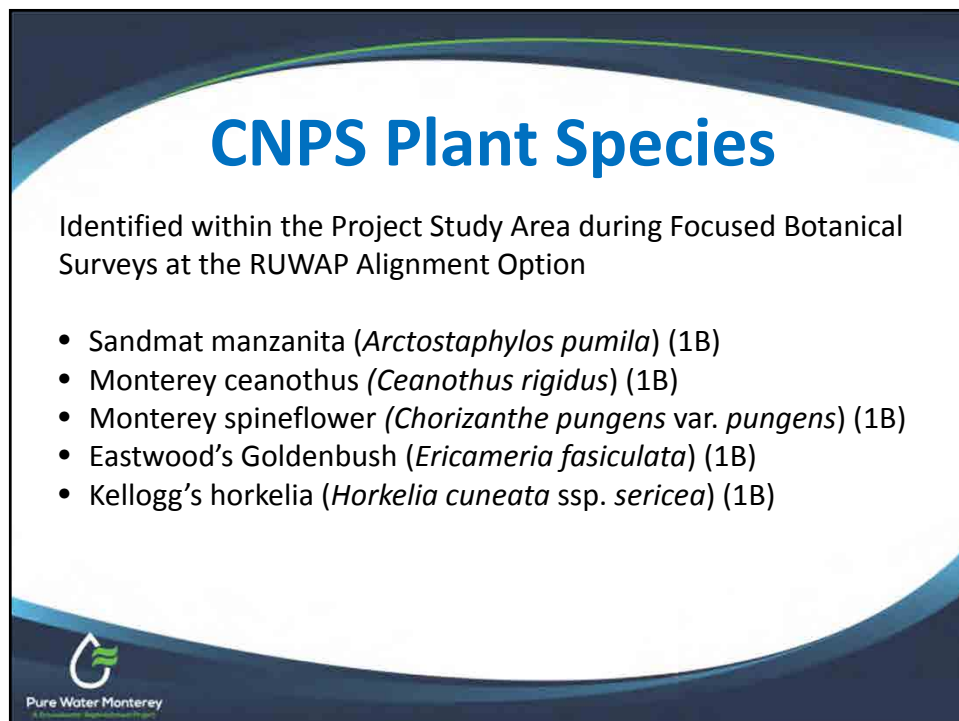
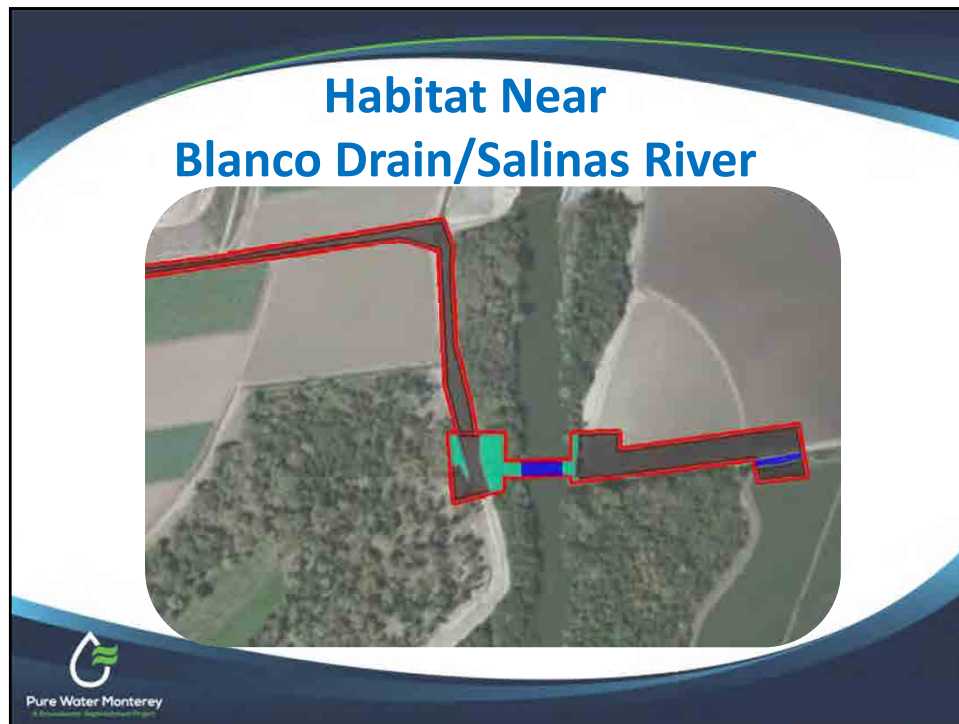


CA Red-Legged Frog

- Project has benefits to CRLF
 - Carmel River (increase flows)
 - Salinas River (improved water quality)
- 106 known CNDDB occurrences within 16 quadrangles analyzed
- Closest known occurrence is adjacent to the Blanco Drain in Salinas River
- Critical Habitat exists for this species but is not within the Action Area
- Fort Ord HMP species







Special Status Wildlife Species

- Pallid Bat (*Antrozous pallidus*) (SSC)
- Hoary Bat (*Lasiurus cinereus*) (CNDDDB)
- Monterey Dusky-Footed Woodrat (*Neotoma macrotis luciana*) (SSC)
- Salinas Harvest Mouse (*Reithrodontomys megalotis distichlis*) (CNDDDB)
- Monterey Ornate Shrew (*Sorex ornatus salarius*) (SSC)
- American Badger (*Taxidea taxus*) (SSC)
- Western Burrowing Owl (*Athene cunicularia*) (SSC)
- California Horned Lark (*Eremophila alpestris actia*) (CNDDDB)
- White-tailed Kite (*Elanus leucurus*) (CFP)
- Western pond turtle (*Emys marmorata*) (SSC)
- Legless Lizard (*Anniella pulchra nigra*) (*Anniella pulchra pulchra*) (SSC)
- Coast horned lizard (*Phrynosoma blainvillii*) (SSC)
- Raptors and Other Migratory Birds Given Protection Under CDFG Code



Avoidance and Minimization Measures

Adopted MMRP Commits Agency Implementation of These
Measures



General BIO Mitigation Measures

- Employee Education Program for the construction crew prior to any construction activities.
- Trees and vegetation not planned for removal or trimming shall be protected.
- Protective fencing shall be placed prior to and during construction to keep construction equipment and personnel from impacting vegetation outside of work limits.
- Following construction, disturbed areas shall be restored to pre-construction contours and revegetated using locally-occurring native species.
- Grading, excavating, and other activities that involve substantial soil disturbance shall be planned and carried out in consultation with a qualified hydrologist, engineer, or erosion control specialist, and shall utilize standard erosion control techniques to minimize erosion and sedimentation to native vegetation (pre-, during, and post-construction).
- No firearms shall be allowed on the construction sites at any time.



General BIO Mitigation Measures

- All food-related and other trash shall be disposed of in closed containers and removed from the project area at least once a week during the construction period.
- On-site spill plan and on-site spill containment measures that can be easily accessed.
- Refueling or maintaining vehicles and equipment should only occur within a specified staging area that is at least 100 feet from a waterbody.
- The project proponents and/or their contractors shall coordinate with the City of Seaside on the location of Injection Well Facilities and the removal of sensitive biotic material.



HMP Species

- Through implementation of the HMP, impacts to HMP species and habitats occurring within the designated development parcels were anticipated and mitigated through the establishment of habitat reserves and corridors, and the implementation of habitat management requirements within habitat reserve parcels on former Fort Ord.
- Because the project is:
 - 1) only proposing development activities within designated development parcels;
 - 2) required to comply with the habitat management restrictions identified in the HMP; and
 - 3) would not result in any additional impacts to HMP species beyond those anticipated in the HMP
- No additional mitigation measures for these HMP species are required.
- Only Applicable on Fort Ord Parcels



Pure Water Monterey
A Sustainable Water Treatment Program

CRLF Mitigation Measures

- Submit the name(s) and credentials of biologists who would conduct activities specified in the following measures
- Survey the work site 48 hours prior to the onset of construction activities.
- Conduct a training session for all construction personnel.
- Biologist present at the work site until such time as all removal of CRLF, instruction of workers, and disturbance of habitat have been completed.
- Limit number of access routes, number and size of staging areas, and the total area of the activity.
- Work activities shall be completed between April 1 and November 1, to the extent practicable.
- Temporary dewatering, intakes completely screened with wire mesh not larger than five millimeters (mm).
- The Declining Amphibian Populations Task Force's Fieldwork Code of Practice shall be followed.



Pure Water Monterey
A Sustainable Water Treatment Program

HDD Mitigation Measures

Prepare and implement a Frac-Out Plan avoid or reduce accidental impacts resulting from horizontal directional drilling (HDD) beneath the Salinas River. The Frac-Out Plan shall be prepared and submitted to USFWS, CDFW, NMFS, and the RWQCB. The following are typical contents of a Frac-Out Plan:

- Project description, including details of the HDD design and operations
- Site description and existing conditions
- Potential modes of HDD failure and HDD failure prevention and mitigation
- Frac-out prevention measures
- Monitoring requirements
- Response to accidental frac-out
- Coordination plan and contact list of key project proponents, biological monitor, and agency staff in the event of an accidental frac-out event.



Pure Water Monterey
A Sustainable Water Treatment Project

Next Steps

- Site visit and Demonstration Facility tour (MRWPCA/DD&A to coordinate and set dates)
- Draft Biological Assessment review by SWRCB-DFA and USEPA
- USEPA to initiate consultation with USFWS (and separately with NOAA NMFS)
- Streambed Alteration Agreement application to be submitted to CDFW
- Consultation leading to Biological Opinion
- SAA process leading to issuance of SAA



Pure Water Monterey
A Sustainable Water Treatment Project

Questions - Discussions



CA Tiger Salamander

- 63 known CNDDDB occurrences within 16 quadrangles analyzed
- Two Nearest Occurrences Historic, Resources No Longer Exists
- Several Breeding Location on Former Fort Ord – No Suitable Habitat Within Action Area Within 2 KM



Tidewater Goby

- Observed for the first time during the 12 years of the lagoon survey and for the first time since 1951, when two gobies were observed during fall 2013 surveys.
- Presumed Lost from the Lagoon Due to Levee Construction and Channelization (USFWS 2013 as cited in HDR Engineering, January 2015).
- Likely That Gobies Dispersed from Nearby Bennett Slough or Moro Cojo Slough (MCWRA 2013b as cited in HDR Engineering, January 2015).
- Effect of the Project on Lower Watershed, Including the Salinas Lagoon Determined to be Insignificant



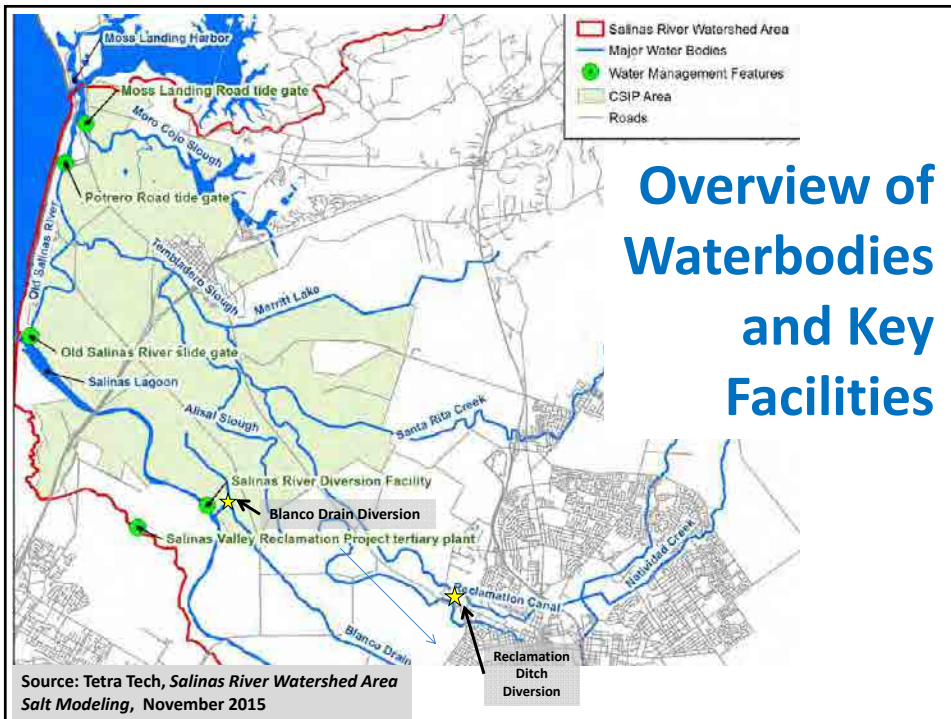
Pure Water Monterey
A Watershed Partnership

Pure Water Monterey: Effects in Lower Watershed

Watersheds of Lower Salinas Valley



Source: Tetra Tech, Salinas River Watershed Area Salt Modeling, November 2015



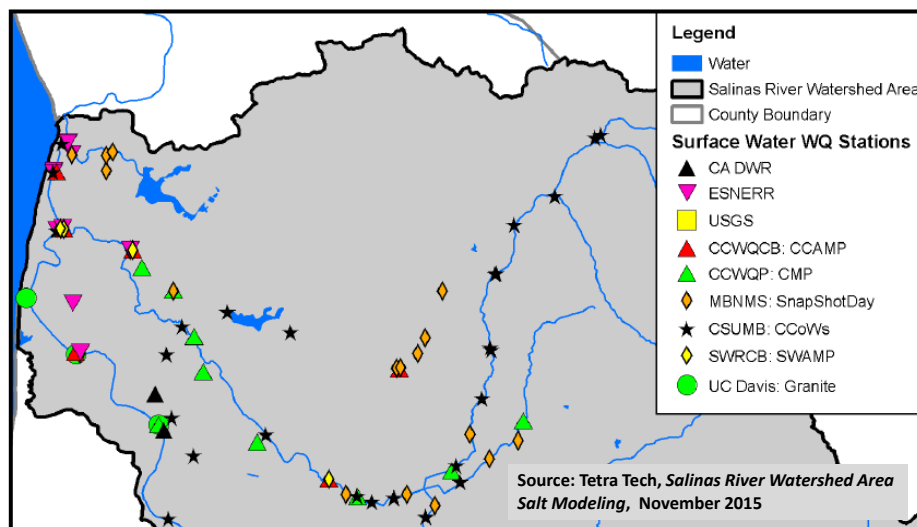
Overview of Waterbodies and Key Facilities

Source: Tetra Tech, Salinas River Watershed Area Salt Modeling, November 2015

Waterbodies Downstream: *Data/Research/Studies*

- MBNMS, USGS, CCRWQCB, MCWRA, and research institutions (ongoing monitoring/reporting)
- CSUMB/CCOWS (ongoing):
 - 2006: Casagrande, et al. Watershed Assessment and Management Plan
 - 2010: Nicol, et al. and 2014: Inman, et al. studied spatial and temporal variations in precipitation, flow/water levels, and salinity
- RWQCB, 2013. Total Maximum Daily Loads for Nitrogen Compounds and Orthophosphate
- Schaaf & Wheeler and Trussell Technologies , 2015. Hydrology/Water Quality Studies for EIR
- Tetra Tech, Nov. 2015. Salinas River Watershed Salt Modeling
- And more ... SIMON, CCLEAN, SWAMP, CCAMP, etc.

Water Quality Monitoring Stations

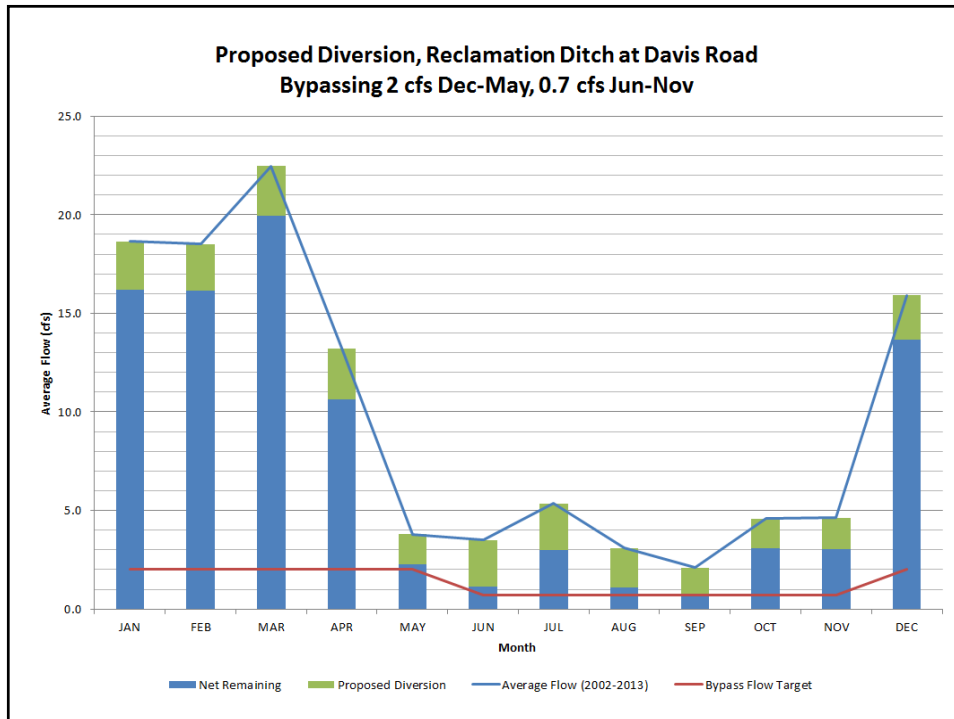
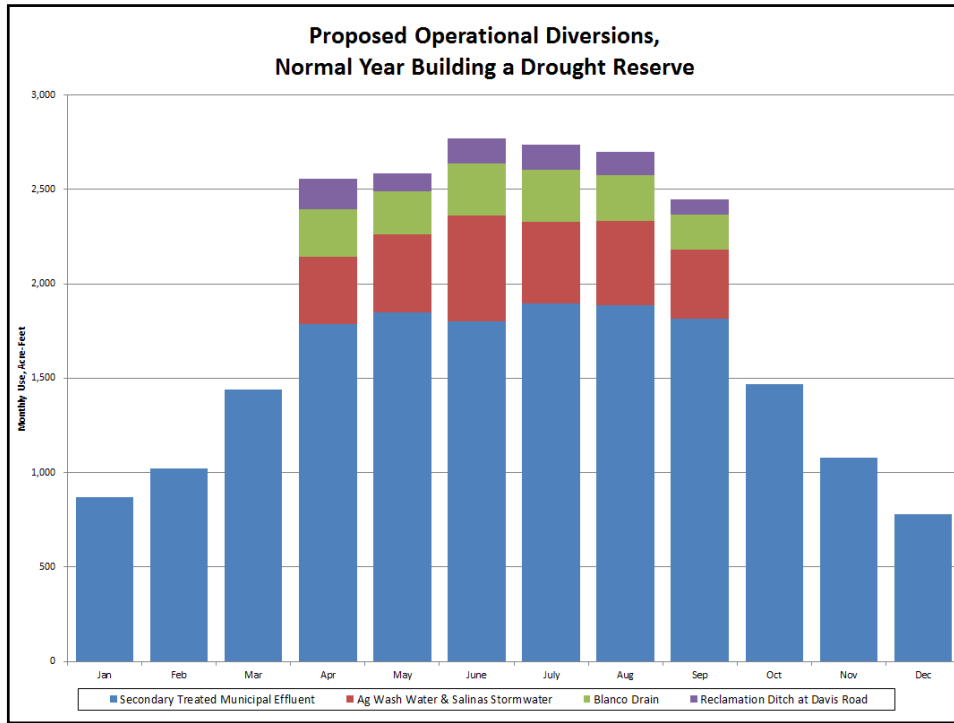


Waterbodies Downstream: The Data

Waterbody	Type of Waterbody	Salinity (ppt)	Dry Season Flows (cfs)	Wet Season Flows (cfs)
Downstream of Reclamation Ditch Diversion				
Reclamation Ditch	fresh	0.1 to 2	1 to 15	2 to >100
Tembladero Slough	brackish	0.2 to 10	2 to 18	5 to >600
Downstream of Blanco Drain Diversion				
Salinas River	fresh	0.2 to 12	0 to 24	20 to over 1,500
Salinas River Lagoon	brackish	2 to 20	0 to 24	
Downstream of Both				
Old Salinas River	brackish	0.2 to 30	~15	15 to >700
Moss Landing Harbor/Elkhorn Slough	saline/brackish during storms	6 to 34	~1,400	~1,400
Monterey Bay/Pacific Ocean	saline	32 to 34	NA	NA

Project Analysis of Surface Water

- MRWPCA Technical Team analyzed availability and system constraints to develop estimate of yield; considered requirement to by-pass flow
- Modeled lower Salinas watershed hydrology
- Estimated flows and water levels with and without project:
 - variety of hydrological conditions (daily, monthly, and water year type variation)
 - acknowledged that the system is subject to ocean tidal and storm events
 - acknowledged the variability of flow inputs by agricultural and urban land uses
 - used statistical analysis and intimate, qualitative information to determine the full range of conditions, for a wide range of hydrologic inputs
- Biologists at DD&A used hydrologic study results to analyze the resulting wetland/riparian impacts based on the assumptions of water levels and amount/spatial extent of wetted areas



Waterbodies Downstream: The Analysis (1 of 2)

- Salinas River:
 - Salinas River Diversion Facility releases min. dry season Salinas River flows – *with or without project*
 - Winter wet season flows can exceed 1,000 cfs; most years flows over 100 cfs persist into summer
- Reclamation Ditch and upper Tembladero Slough:
 - general lack of vegetation, surrounding area urban and agricultural, exc. brackish/tidally-influenced portion, 7 miles downstream
 - no suitable upland habitat for CRLF + *very poor water quality*
- Salinas River Lagoon, lower Tembladero, OSR, Moss Landing Harbor, Elkhorn/Moro Cojo Slough, Bay/Ocean:
 - Low elevation (sea level to high tide elevation), ongoing agricultural inflow, control structures, tidal action = considerable ocean water input
 - no measurable/detectable water level changes would result from diversions (Schaaf & Wheeler, 2015)

Effects on Lower Watershed: Flow /Water Level Analysis (2 of 2)

- Modeled project flows consistent with actual baseline measured flows during late summer/fall
- Stable water surface elevations in lower watershed = no detectable changes in amount or area of inundation
- EIR concluded flow changes would not adversely affect special status biological resources habitat for CA red-legged frog nor wetland or riparian habitat

(See also Master Response #4 in Final EIR)

Effects on Lower Watershed: Salinity Analysis

- Less freshwater in dry summer months = increased salinity in brackish waterbodies (Tembladero Slough, Old Salinas River, Salinas Lagoon).
- Minimum in-channel by-pass flows proposed consistent with existing flows during late summer and fall
- Increased salinity in some months of each year within the normal fluctuation of the existing, background conditions:

Waterbody	Type of Waterbody	Salinity (ppt)
Reclamation Ditch	fresh	0.1 to 2
Tembladero Slough	brackish	0.2 to 10
Salinas River	fresh	0.2 to 12
Salinas River Lagoon	brackish	2 to 20
Old Salinas River	brackish	0.2 to 30
Moss Landing Harbor & Elkhorn Slough	saline/brackish in storm	6 to 34

Elkhorn Slough Inflows (Schaaf & Wheeler, 2015)

- Existing Inflows:
 - All of natural streams which discharge directly into Elkhorn Slough are seasonal (limited to urban/agricultural land runoff in summer months)
 - Some flow from the Old Salinas River enters the Moss Landing Harbor on a falling tide and is carried into Elkhorn Slough on the rising tide.
- Tidal Exchange:
 - Average inflow/outflow for the Slough is 2,400 acre-feet/tidal cycle (average tide is 3.5 ft). Flow rates range from 800 to 2,800 cfs depending on the tidal difference.
- Project effects on Elkhorn Slough:
 - No measurable/detectable water level changes would result from diversions due to tidal cycle and relative small change in OSR flows
 - Salinity in Elkhorn Slough would increase by no more than 0.4 ppt at all times (<1% difference); during dry season only up to 0.2 ppt (0.4%)

DRAFT Summary Notes
January 14th, 2016 Meeting
USFWS/CDFW Coordination

Attendees	
On phone/web-connect	At DD&A offices
Annette Tenneboe– CDFW	Larry Hampson, MPWMD
Brandon Sanderson – CDFW	Mike McCullough, MRWPCA
Janelle Leeson – USACOE	Jacob Martin, USFWS
Justine Herrig – SWRCB, Division of Water Rights	Denise Duffy, DD&A
Jeff Wetzal – SWRCB, Division of Water Rights	Alison Imamura, DD&A
Ahmad Kashkoli – SWRCB, Division of Financial Assistance	Matt Johnson, DD&A
Susan Stewart – SWRCB, Division of Financial Assistance	Diana Staines, DD&A
Shaunna Juarez, MCWRA	
Andy Sterbenz, Schaaf & Wheeler	
Bill Snider, HDR	

Meeting Summary Notes

1. Introductions / Roles & Responsibilities

2. Pure Water Monterey Project

• **Regional Context, Purpose/Need**

The GWR Project could be permitted, constructed, and implementation before the MPWSP. The CPUC is going to decide sometime mid-year if the MPWSP and the GWR Project can be separate in for future Administrative Law Judge decisions; such as approval of the GWR Water Purchase Agreement

• **Pure Water Monterey Overview and Key Components**

The product water conveyance pipeline (referred to as the RUWAP pipeline) has an approved Biological Opinion, issued in 2008 or 2009. Jacob explained that the BO may have to be amended if new information is available or if conditions have changed. Team acknowledged that the Pure Water Monterey project has more facilities than just the product water conveyance.

Brandon asked if the product water pipeline was co-located with the MPWSP desalinated water pipeline. The MPWSP pipeline has more environmental impacts; therefore, MRWPCA selected the RUWAP alignment in their project approval decision on Oct. 8, 2015. Current regulations do not allow advanced treated water (from GWR) and desalinated water (from MPWSP) to use the same conveyance system for direct delivery to potable municipal users; so the Pure Water Monterey and the desalination project cannot share a product water/desalinated water pipeline at this time. MRWPCA is working with MCWD to potential share the recycled water pipeline; thereby changing the RUWAP Urban Recycled Water Project to deliver tertiary water to use of advanced treated water for urban irrigation within former Fort Ord.

The horizontal directional drilling under the Salinas River will be included in the Streambed Alteration Agreement application.

3. Species of Concern

Matt provided presentation of the species analysis in the BA and EIR. Tide water gobies are present in Elkhorn Slough and in Moro Cojo Slough. Gobies found in Salinas River during a 2013 survey are thought to have dispersed from Moro Cojo or Bennett Slough. Were thought to be extirpated from Salinas Lagoon prior to 2013 survey.

USFWS concerned about water existing in all potential CRLF habitat. Bypass flows are required at all locations due to steelhead issues; water will still be present in the Salinas River and lagoon in all but the most severe drought years.

4. Avoidance and Minimization Measures

The horizontal directional drilling will avoid direct impacts to riparian habitat. BMPs and Frac-out plan is required by adopted MMRP.

Received verbal confirmation that if construction avoids riparian habitat and nesting season, that there will be no adverse effects to tri-colored black bird, and a CA ESA permit will not be needed from the CDFW. No formal process will be needed to make this determination, just include relevant mitigation/avoidance measures in the Streambed Alteration Agreement.

5. Questions and Discussion

- Jacob Martin asked about the impacts of the GWR Project diversions to downstream environments. Alison provided an overview presentation of the EIR and BA analyses related to water flow/levels, water quality, and biological resources. The EIR provided substantive quantitative and qualitative analysis based on scientific research, technical hydrologic modeling, and site survey of existing conditions that found no significant impacts to downstream water bodies.
- The Demonstration Facility at the RTP is now open; everyone is encouraged to visit if they can.
- The County Water Resources doesn't issue permits. A Monterey County grading permit will probably be needed for the horizontal direction drilling under the Salinas River and possibly a Land Use Permit.
- A site visit will be planned by Mike and Alison.
- Jacob will be on a 3-week paternity leave from Jan. 18 until about Feb 8
- Jacob does not need to review the Biological Assessment before formal consultation begins (need to confirm this with Ahmad). DD&A provided Jacob with a hard copy of the Draft BA and the Power Point Presentation. Jacob and Matt will coordinate to conduct a field site visit for the project.
- Alison will send the meeting presentation and the extra slides on downstream impacts to all of the meeting attendees.
- It has not been determined if NOAA NMFS will issue a Biological Opinion yet.
- After USFWS staff has reviewed the background information, EIR analyses, draft BA, and the PowerPoints; team is willing and available to set up another meeting to discuss other questions and comments.

Pure Water Monterey Groundwater Replenishment Project

Site Visit for United States Fish and Wildlife Service

Date: February 26, 2016 **Time:** 1:30 pM – 5:00 PM

Location: Monterey Regional Wastewater Treatment Plant, Injection Well and Source Water Diversion Sites

Attendees (Tentative):

- USFWS: Jacob Martin
- DD&A: Matt Johnson
- MRWPCA Mike McCullough
- MCWRA, Shaunna Juarez

Tentative Itinerary:

1:30 PM → Meet at Water Treatment Plant (View Demonstration Facility, if available)

Monterey Regional Water Pollution Control Agency Regional Treatment Plant

14811 Del Monte Boulevard, Marina, CA 93933, CA 93908

~2:00 PM Drive to Salinas Industrial Wastewater Treatment Ponds

~2:20 PM: Drive to MRWPCA Pump Station (*see site in vehicles*)

~2:40 PM: Drive to Reclamation Ditch Diversion site (*park and get out to view site*)

~3:15 PM: Drive to Blanco Drain Diversion site – north side (*park and get out to view site*)


~4:00 PM: Seaside Injection Well Site from Eucalyptus/GJM Blvd and Product Water Alignment

4:30 PM → Drop Off at Regional Treatment Plant





Pure Water Monterey
A Groundwater Replenishment Project





Pure Water Monterey
A Groundwater Replenishment Project


SITE VISIT
FOR
U.S. FISH AND WILDLIFE SERVICE AND SWRCB-
DIVISION OF FINANCIAL ASSISTANCE
FEBRUARY 16, 2016

1

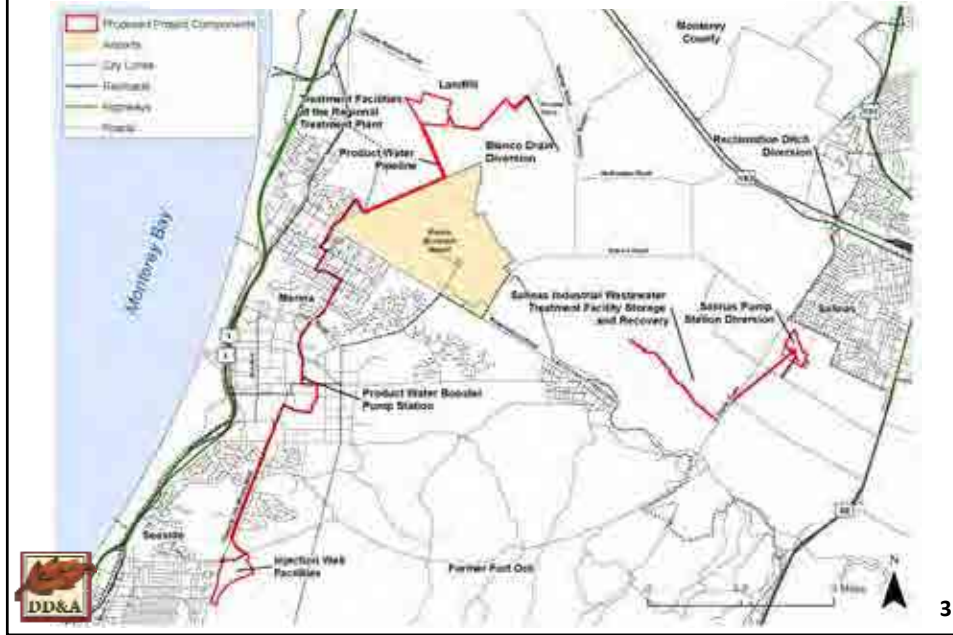
Pure Water Monterey: Overview

- **Integrates regional water issues:** Northern Monterey County (multi-agency, multi-benefit, broad geographic area)
- **Helps achieve State policies:** water supply/stormwater planning, climate change, water quality, groundwater sustainability
- **Is innovative and reliable:** Proposes to recycle diversified sources- industrial wastewater, urban and agric. drainage/runoff
- **Complies with State Orders:** Uses purified recycled water for groundwater recharge; offsets Carmel River diversions by 3,500 acre-feet per year (AFY)
- **Reduces seawater intrusion in Salinas Valley:** Augments agricultural supply by 4,000 to 5,000 AFY to offset pumping
- **Beneficial impacts on resources:** Carmel River steelhead, CRLF, and other aquatic species habitat, groundwater levels/quality (indirectly increases surface water), reduced pollutant loads in Salinas watersheds

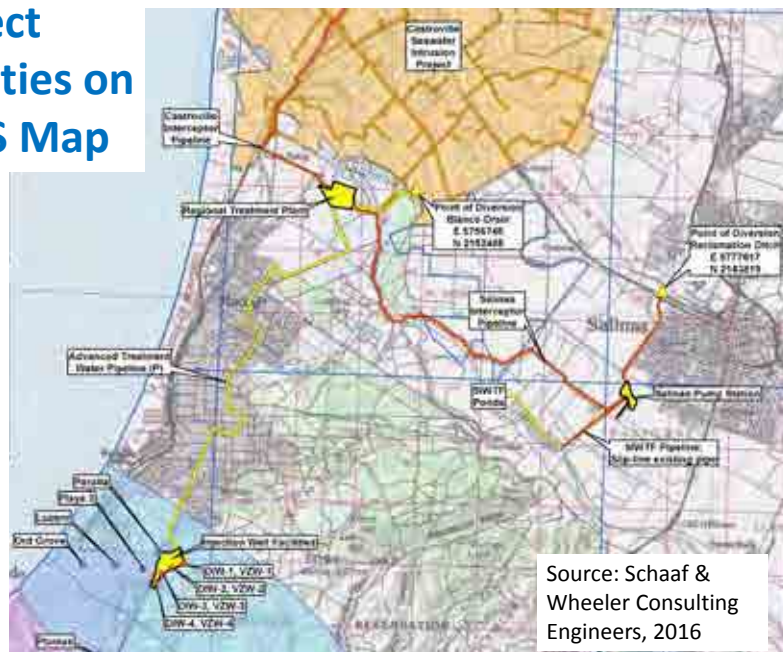


Pure Water Monterey
A Groundwater Replenishment Project

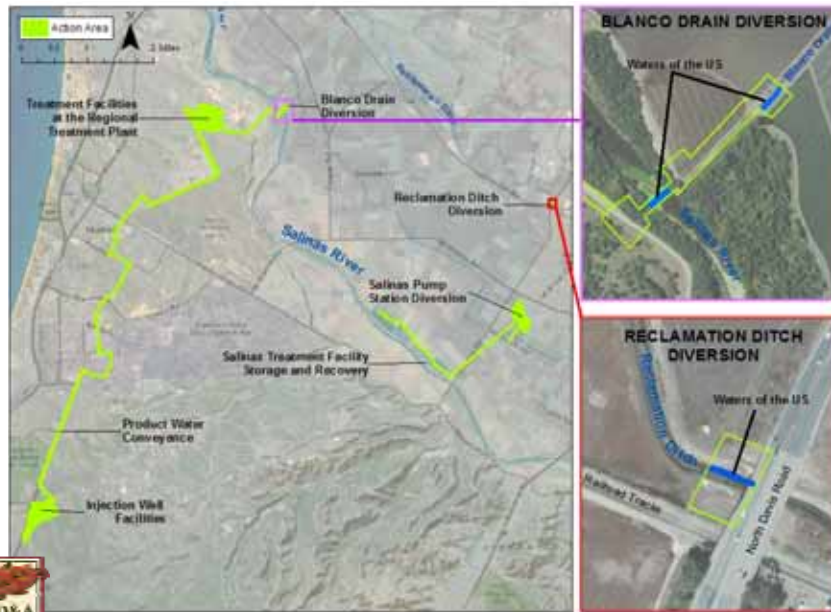
Project Overview & Road Map



Project Facilities on USGS Map

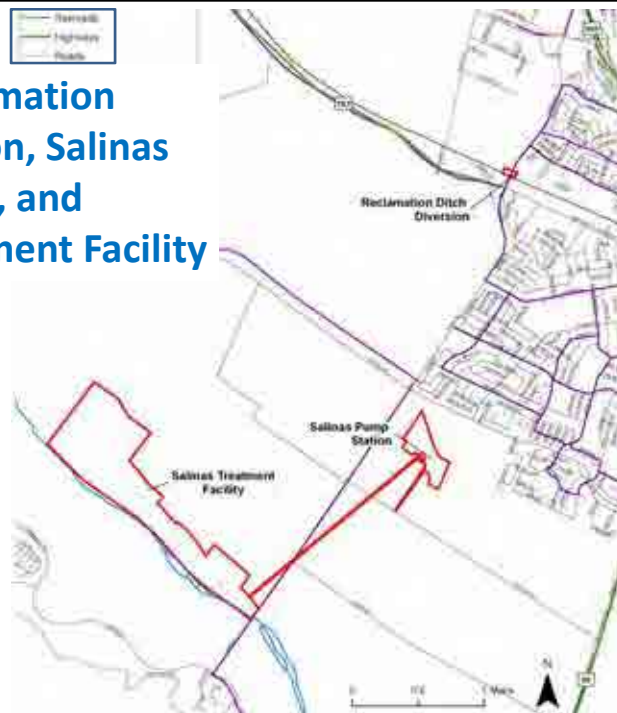


Facilities in and near Water Bodies



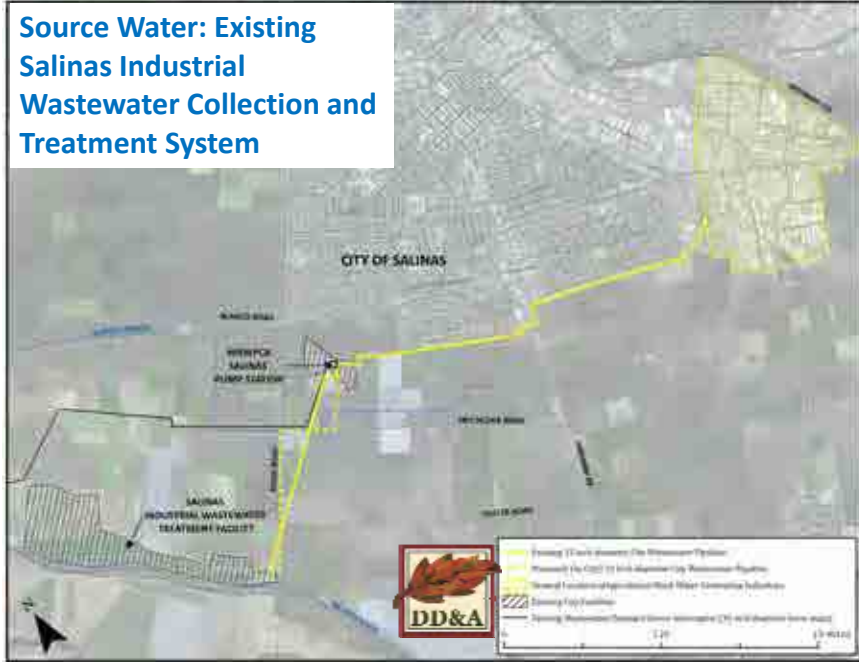
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Map to Reclamation Ditch Diversion, Salinas Pump Station, and Salinas Treatment Facility



6

Source Water: Existing Salinas Industrial Wastewater Collection and Treatment System



7

Salinas Treatment Facility – Proposed Site Plan



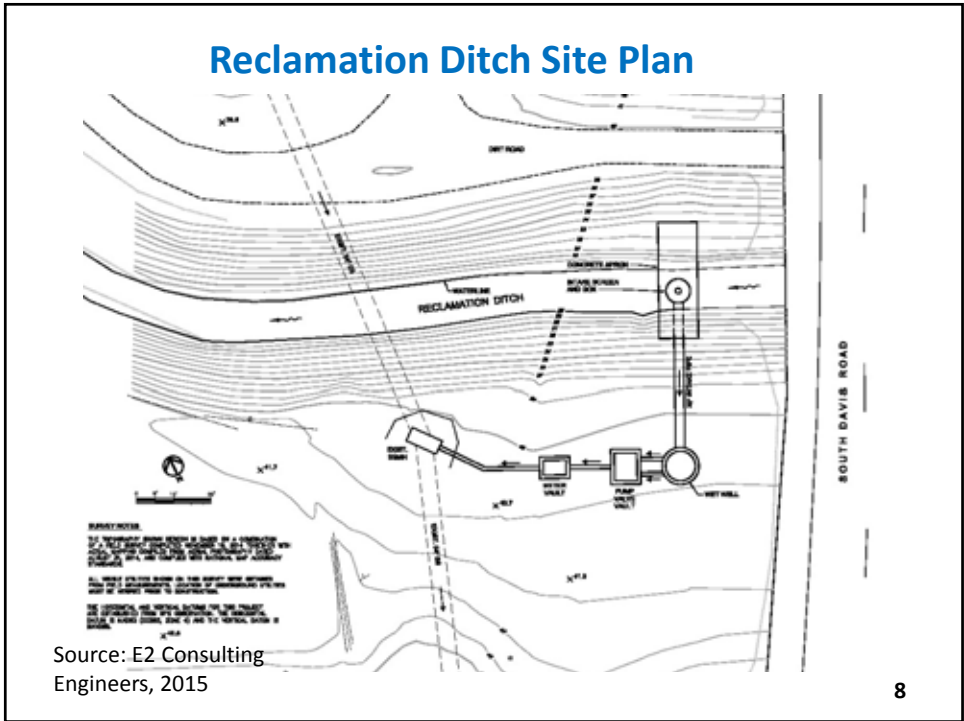
KEY NOTES:

- 1 NEW POND 3 PUMP STATION INLET BOX
- 2 NEW POND 3 PUMP STATION WET WELL
- 3 NEW 18" FORCE MAIN
- 4 NEW DIVERSION STRUCTURE NO. 3
- 5 EXISTING PRESSURE M.H. ON 30" LINE
- 6 NEW 30" GRAVITY MANHOLE
- 7 RETURN PUMP STATION WET WELL
- 8 RETURN PUMP STATION VALVE VAULT
- 9 NEW FLOW METER VAULT
- 10 NEW 18" FORCE MAIN INSIDE EXIST. 36" WW PIPELINE TO SALINAS P.S.
- 11 EXIST. 42" WW PIPELINE
- 12 EXIST. WW PUMP STATION
- 13 EXIST. 24" WW INLET PIPELINE
- 14 EXIST. 18" WW OUTLET PIPELINE
- 15 EXIST. 30" WW DISTRIBUTION PIPELINE
- 16 EXIST. INLET TO POND
- 17 EXIST. RUSH MANHOLE
- 18 EXIST. 24" WW DISTRIBUTION PIPELINE
- 19 EXIST. POND INLET STRUCTURE
- 20 EXIST. POND 3 PUMP STATION
- 21 EXIST. IRRIGATION BEDS DISTRIBUTION STRUCTURE
- 22 EXIST. DISTRIBUTION PIPELINES TO IRRIGATION BEDS

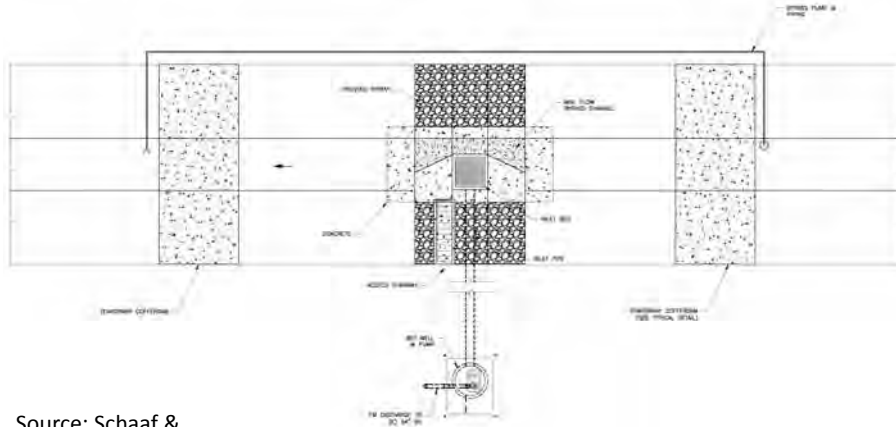
Source: E2 Consulting Engineers, 2015



8



Reclamation Ditch Dewatering and Bypass Pumping



Source: Schaaf & Wheeler Consulting Engineers, 2016

11



12

Blanco Drain Pipeline near Diversion Location



LEGEND
 18" dia. Blanco Drain (Blowing 1)
 18" dia. Blanco Drain (Blowing 2)
 18" dia. Blanco Drain (Blowing 3)
 Proposed System Configuration

Source: E2 Consulting Engineers, 2015

13

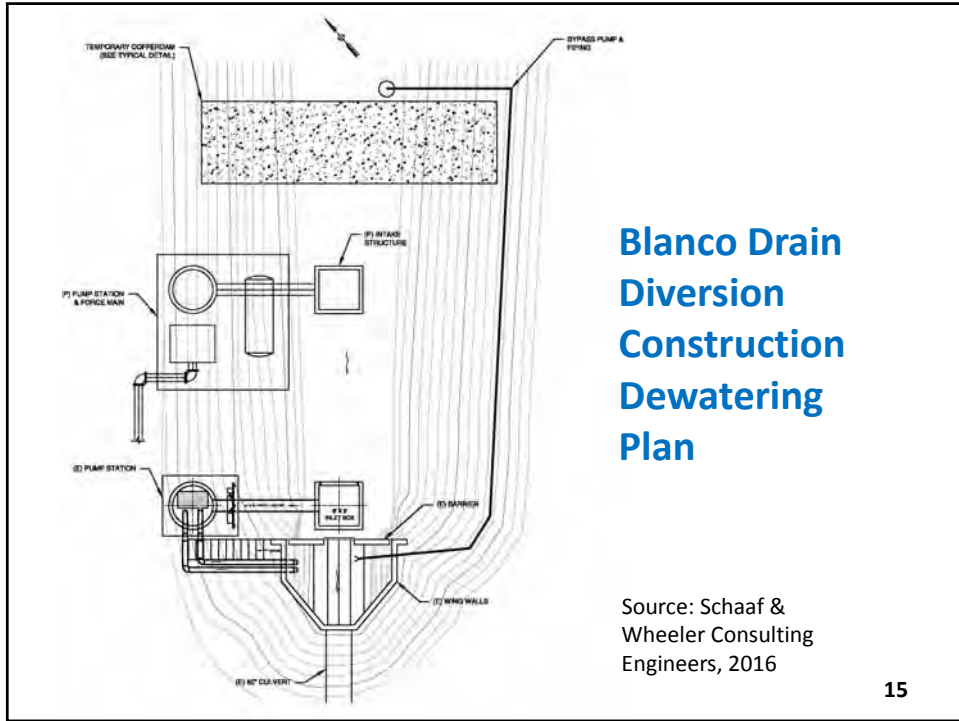
Blanco Drain Pipeline near landfill and RTP



LEGEND
 18" dia. Blanco Drain (Blowing 1)
 18" dia. Blanco Drain (Blowing 2)
 18" dia. Blanco Drain (Blowing 3)
 Proposed System Configuration

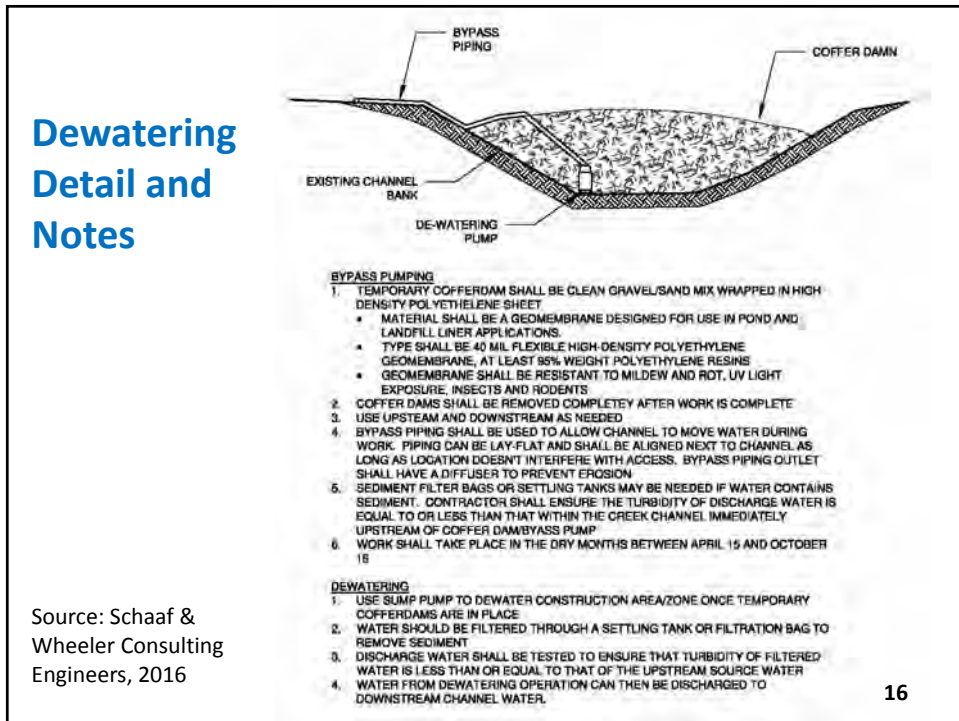
Source: E2 Consulting Engineers, 2015

14



Blanco Drain Diversion Construction Dewatering Plan

Source: Schaaf & Wheeler Consulting Engineers, 2016



Dewatering Detail and Notes

BYPASS PUMPING

1. TEMPORARY COFFERDAM SHALL BE CLEAN GRAVEL/SAND MIX WRAPPED IN HIGH DENSITY POLYETHYLENE SHEET
 - MATERIAL SHALL BE A GEOMEMBRANE DESIGNED FOR USE IN POND AND LANDFILL LINER APPLICATIONS.
 - TYPE SHALL BE 40 MIL FLEXIBLE HIGH-DENSITY POLYETHYLENE GEOMEMBRANE, AT LEAST 95% WEIGHT POLYETHYLENE RESINS
 - GEOMEMBRANE SHALL BE RESISTANT TO MILDEW AND ROT, UV LIGHT EXPOSURE, INSECTS AND RODENTS
2. COFFER DAMS SHALL BE REMOVED COMPLETELY AFTER WORK IS COMPLETE
3. USE UPSTREAM AND DOWNSTREAM AS NEEDED
4. BYPASS PIPING SHALL BE USED TO ALLOW CHANNEL TO MOVE WATER DURING WORK. PIPING CAN BE LAY-FLAT AND SHALL BE ALIGNED NEXT TO CHANNEL AS LONG AS LOCATION DOESN'T INTERFERE WITH ACCESS. BYPASS PIPING OUTLET SHALL HAVE A DIFFUSER TO PREVENT EROSION
5. SEDIMENT FILTER BAGS OR SETTLING TANKS MAY BE NEEDED IF WATER CONTAINS SEDIMENT. CONTRACTOR SHALL ENSURE THE TURBIDITY OF DISCHARGE WATER IS EQUAL TO OR LESS THAN THAT WITHIN THE CREEK CHANNEL IMMEDIATELY UPSTREAM OF COFFER DAM/BYPASS PUMP
6. WORK SHALL TAKE PLACE IN THE DRY MONTHS BETWEEN APRIL 15 AND OCTOBER 15

DEWATERING

1. USE SUMP PUMP TO DEWATER CONSTRUCTION AREA/ZONE ONCE TEMPORARY COFFERDAMS ARE IN PLACE
2. WATER SHOULD BE FILTERED THROUGH A SETTLING TANK OR FILTRATION BAG TO REMOVE SEDIMENT
3. DISCHARGE WATER SHALL BE TESTED TO ENSURE THAT TURBIDITY OF FILTERED WATER IS LESS THAN OR EQUAL TO THAT OF THE UPSTREAM SOURCE WATER
4. WATER FROM DEWATERING OPERATION CAN THEN BE DISCHARGED TO DOWNSTREAM CHANNEL WATER.

Source: Schaaf & Wheeler Consulting Engineers, 2016

Oblique of Injection Well Facilities Site



17

Injection Well Facilities Site Plan

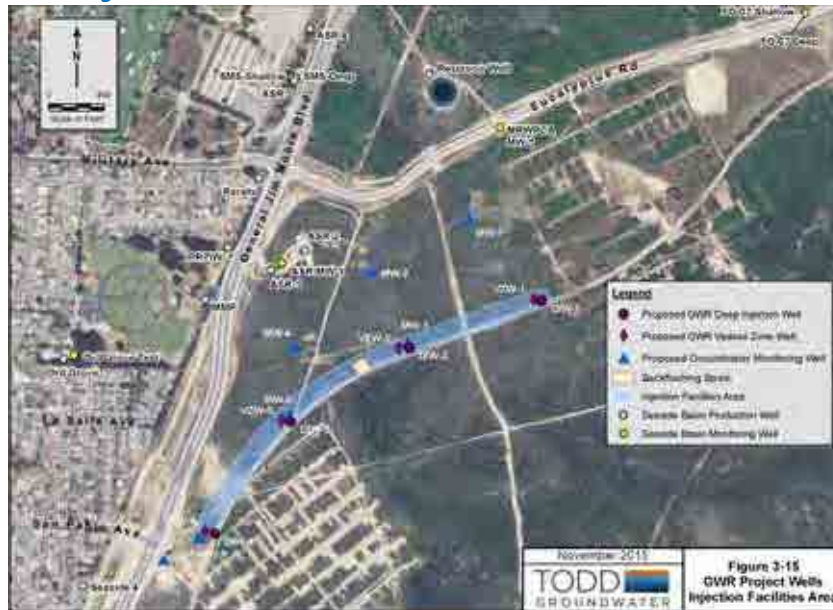
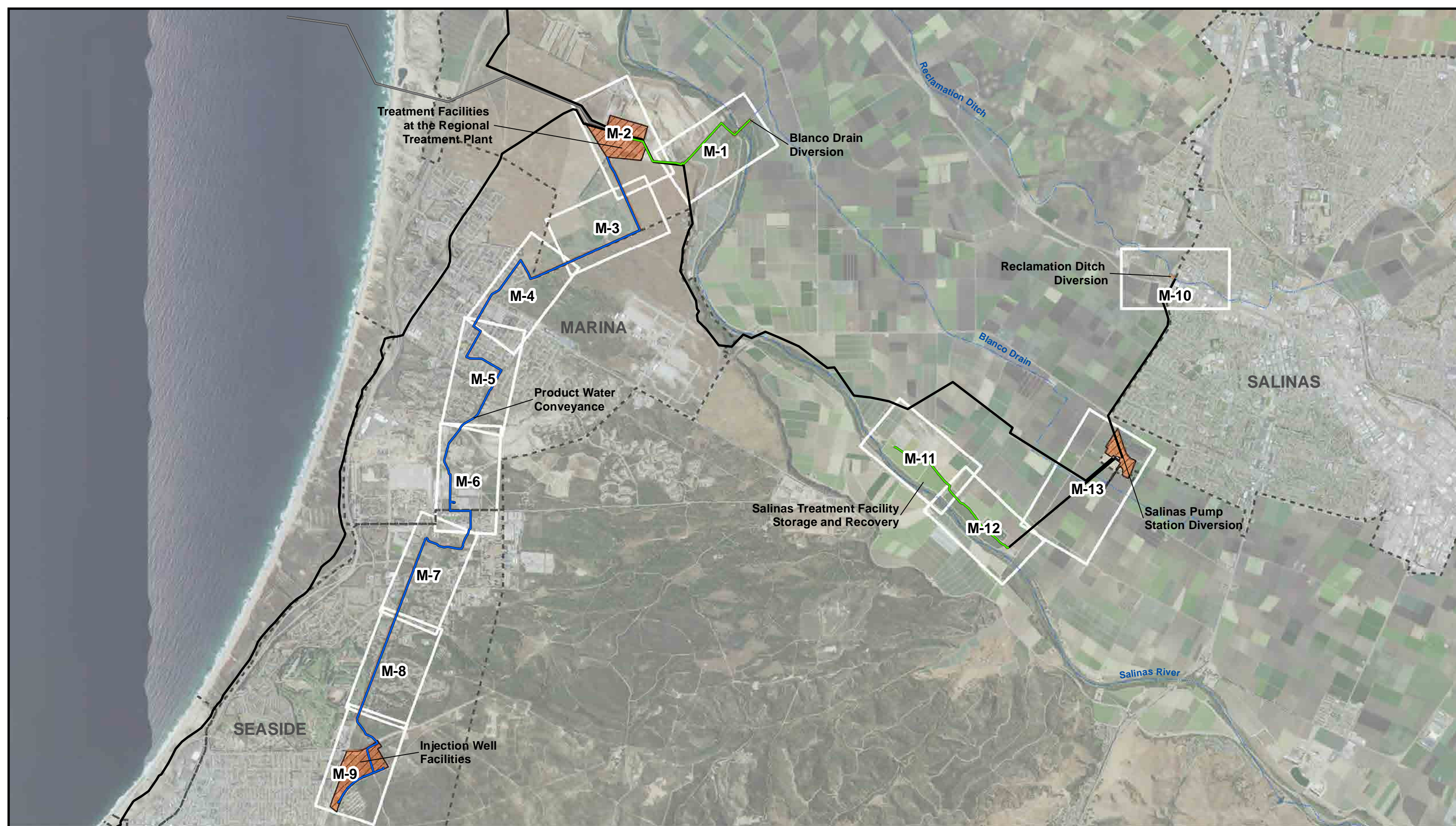


Figure 3-15
GWR Project Wells
Injection Facilities Area

18

Appendix G – Proposed Action Area Map Booklet including
Permanent Facilities







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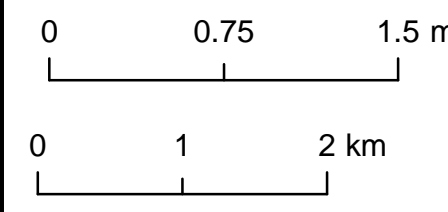
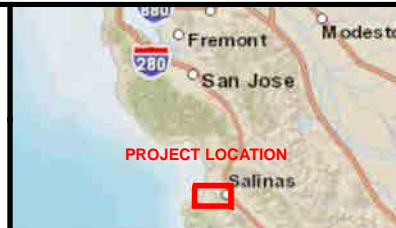


PROPOSED ACTION AREA MAP BOOKLET

PURE WATER MONTEREY GROUNDWATER REPLENISHMENT PROJECT

VERSION DATE: FEBRUARY 11, 2016

-  Existing Ocean Outfall
-  Existing Wastewater Pipelines
-  Proposed Product Water Pipeline Options
-  Proposed Source Water Pipeline
-  GWR Area of Potential Effect
-  Proposed Project Facility Sites



Blanco Drain Diversion Pipeline

Blanco Drain Diversion Pump Station


Entry/Retrieval Portals

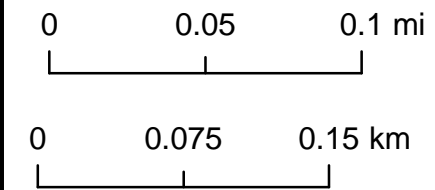


PROPOSED ACTION AREA MAP BOOKLET

PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT

VERSION DATE: FEBRUARY 11, 2016

-  Assessor Parcel Lines
-  Existing Wastewater Pipelines
-  Proposed Electrical Line
-  Proposed Product Water Pipeline
-  Proposed Source Water Pipeline
-  Footprint of Permanent Aboveground Facilities
-  GWR Source Water Diversion Sites
-  GWR Treatment Facilities
-  GWR Product Water Conveyance
-  GWR Injection Wells and Backflush Facilities



Blanco Drain
Diversion Pipeline

Treatment Facilities
at the Regional
Treatment Plant

Monterey County

SVRP
Modifications

Product Water
Conveyance Pipeline



PROPOSED ACTION AREA MAP BOOKLET

PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT

VERSION DATE: FEBRUARY 11, 2016

Assessor Parcel Lines

Existing Ocean Outfall

Proposed Product Water Pipeline

Proposed Source Water Pipeline

Footprint of Permanent Aboveground Facilities

GWR Injection Wells and Backflush Facilities

GWR Product Water Conveyance

GWR Source Water Diversion Sites

GWR Treatment Facilities



0 0.05 0.1 mi

0 0.075 0.15 km



Product Water
Conveyance Pipeline

Monterey County

City of Marina

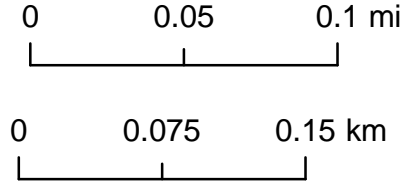


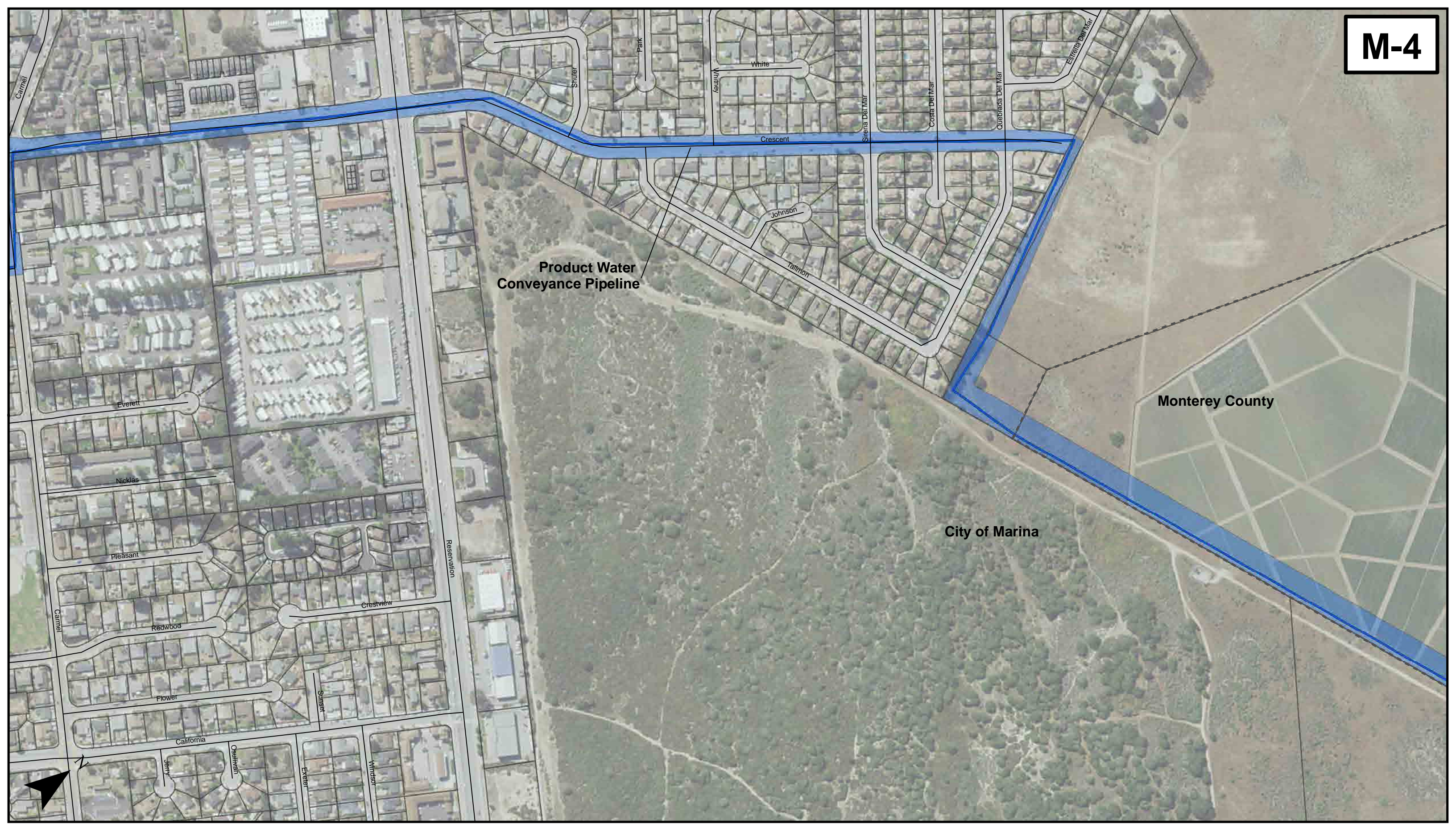
PROPOSED ACTION AREA MAP BOOKLET

PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT

VERSION DATE: FEBRUARY 11, 2016

- Assessor Parcel Lines
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- Footprint of Permanent Aboveground Facilities
- GWR Source Water Diversion Sites
- GWR Treatment Facilities
- GWR Product Water Conveyance
- GWR Injection Wells and Backflush Facilities

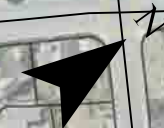




Product Water Conveyance Pipeline

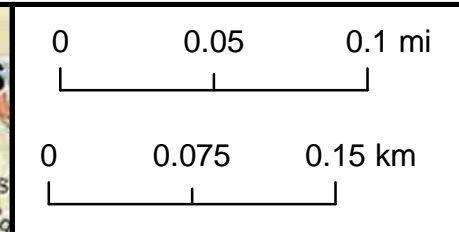
City of Marina

Monterey County



PROPOSED ACTION AREA MAP BOOKLET
PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT
VERSION DATE: FEBRUARY 11, 2016

- Assessor Parcel Lines
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- Proposed Injection Well Facilities
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- Proposed Source Water Pipeline
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- GWR Treatment Facilities
- GWR Product Water Conveyance
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DD&A
Pure Water Monterey
 A Groundwater Replenishment Project

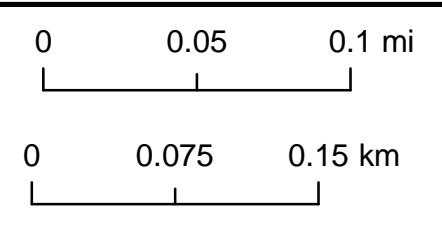
City of Marina

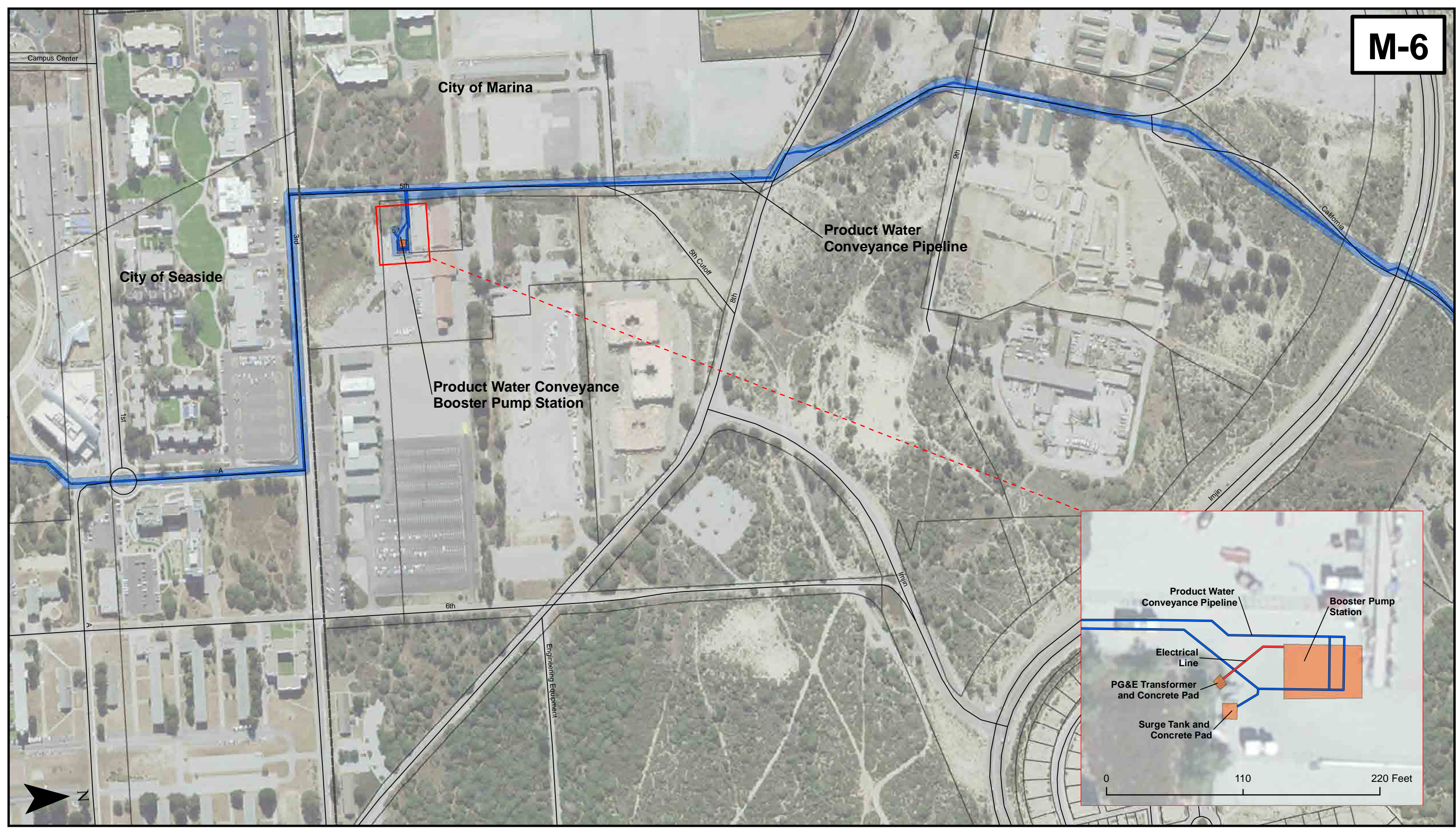
**Product Water
Conveyance Pipeline**



PROPOSED ACTION AREA MAP BOOKLET
PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT
VERSION DATE: FEBRUARY 11, 2016

- Assessor Parcel Lines
- Footprint of Permanent Aboveground Facilities
- Existing Wastewater Pipelines
- GWR Source Water Diversion Sites
- Proposed Injection Well Facilities
- GWR Treatment Facilities
- Proposed Product Water Pipeline
- GWR Product Water Conveyance
- Proposed Source Water Pipeline
- GWR Injection Wells and Backflush Facilities



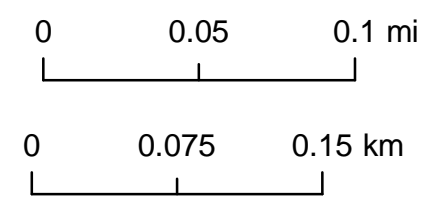


PROPOSED ACTION AREA MAP BOOKLET

**PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT**

VERSION DATE: FEBRUARY 11, 2016

- Assessor Parcel Lines
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**Product Water
Conveyance Pipeline**

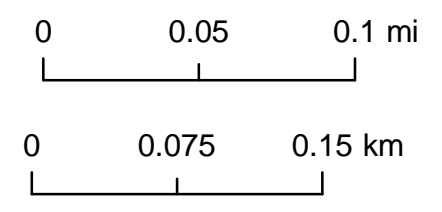
City of Seaside

Light Fighter
General Jim Moore

Campus Center

PROPOSED ACTION AREA MAP BOOKLET
PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT
VERSION DATE: FEBRUARY 11, 2016

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City of Seaside

Product Water
Conveyance Pipeline

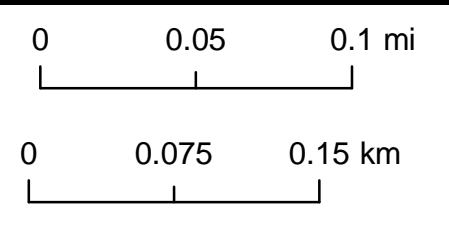


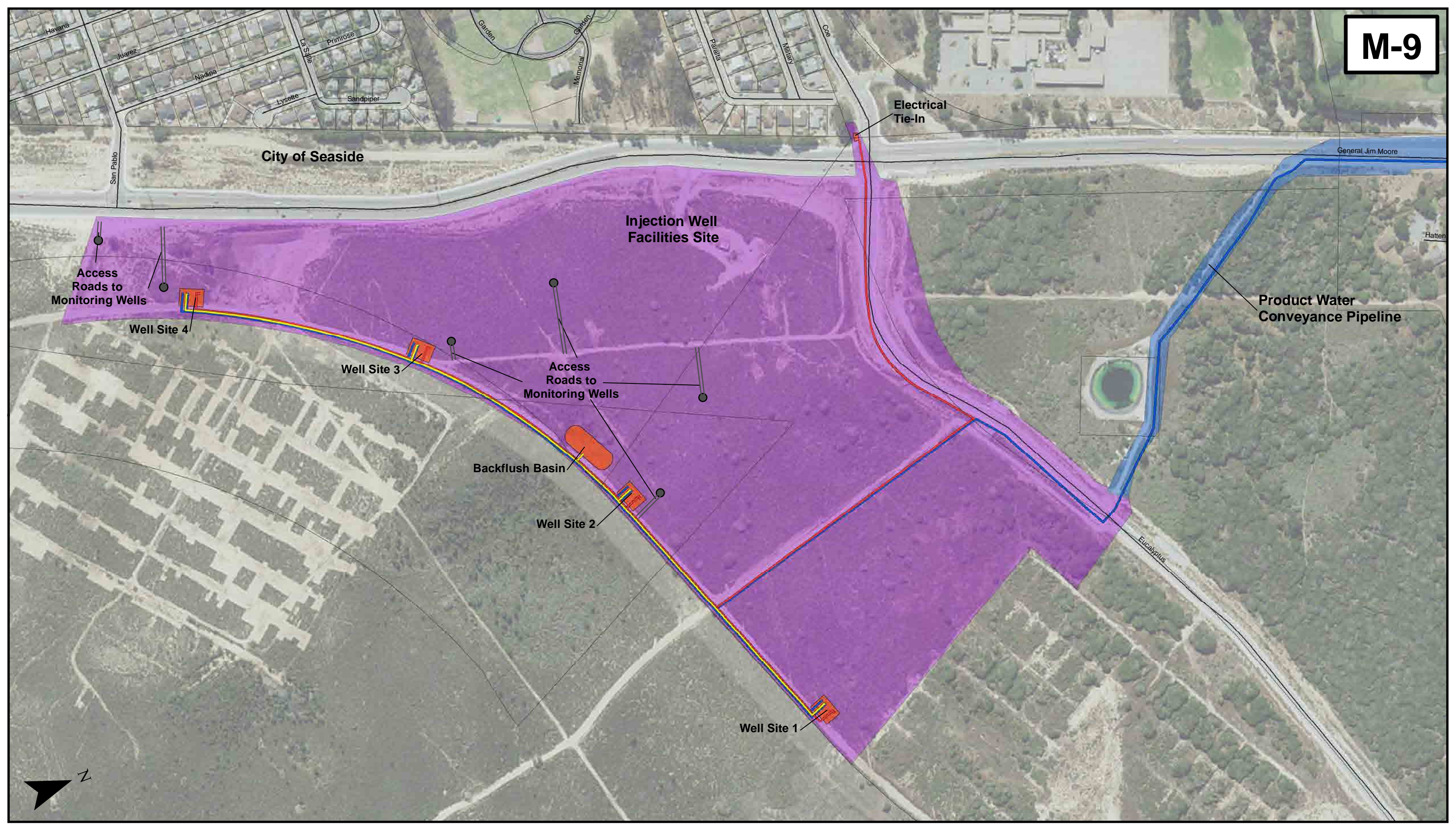
PROPOSED ACTION AREA MAP BOOKLET

**PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT**

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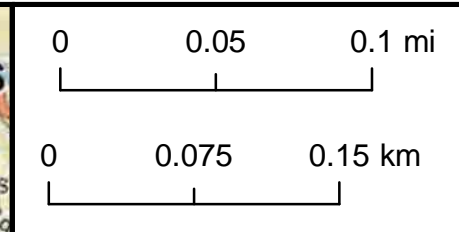


PROPOSED ACTION AREA MAP BOOKLET

**PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT**

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-  GWR Injection Wells and Backflush Facilities



DD&A

Pure Water Monterey
A Groundwater Replenishment Project

Monterey County

Reclamation Ditch Diversion Site

City of Salinas

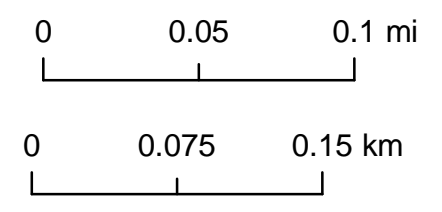


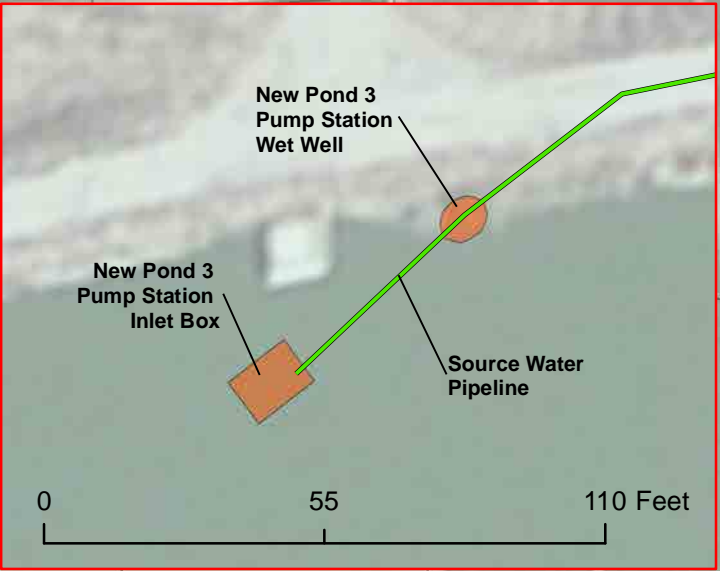
PROPOSED ACTION AREA MAP BOOKLET

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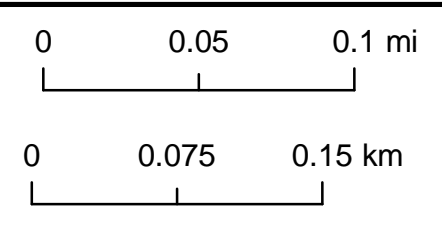
Monterey County

Salinas Treatment Facility
Storage and Recovery

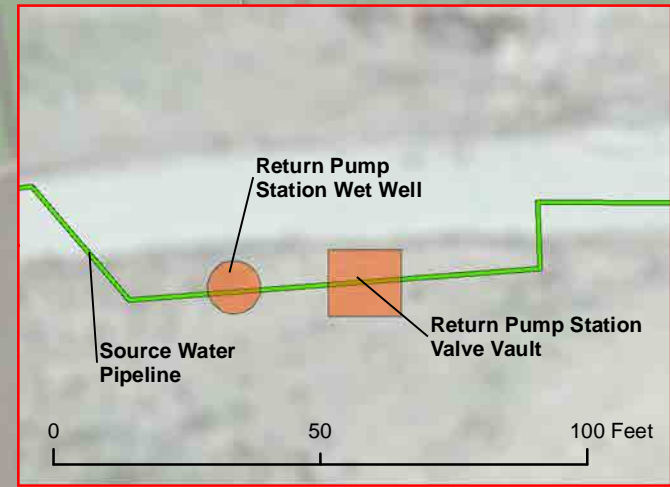
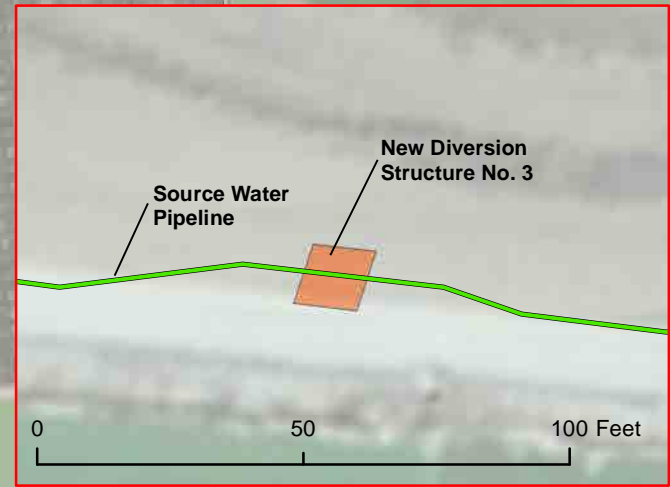


PROPOSED ACTION AREA MAP BOOKLET
PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT
VERSION DATE: FEBRUARY 11, 2016

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Note: This line represents an existing 33-inch pipeline that is proposed to be slip-lined to operate as a force main for returning water from the SIWTF ponds to the SAPS for conveyance of stored wastewater and stormwater to the RTP.



33 inch Pipeline
SEE NOTE

Salinas Treatment Facility
Storage and Recovery

Monterey County

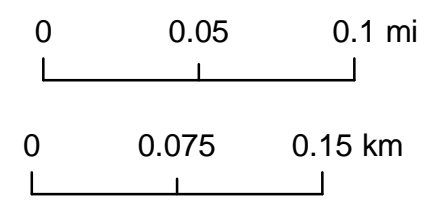


PROPOSED ACTION AREA MAP BOOKLET

PURE WATER MONTEREY
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Note 1: Most of the City of Salinas Treatment Plant 1 (TP1 site) is included in the APE because that site is anticipated to be used for staging, stockpiling, equipment storage, etc. Major ground disturbing activities, include trenching, excavation, and construction of physical diversion structures will occur almost exclusively within the areas outlined in red.

Note 2: This line represents an existing 33-inch pipeline that is proposed to be slip-lined to operate as a force main for returning water from the SIWTF ponds to the SAPS for conveyance of stored wastewater and stormwater to the RTP.

33 Inch Pipeline
SEE NOTE 2

Salinas Pump
Station Diversion
SEE NOTE 1

Monterey County

City of Salinas



PROPOSED ACTION AREA MAP BOOKLET

**PURE WATER MONTEREY
GROUNDWATER REPLENISHMENT PROJECT**

VERSION DATE: FEBRUARY 11, 2016

- | | |
|---------------------------------|---|
| Assessor Parcel Lines | Footprint of Permanent Aboveground Facilities |
| Existing Wastewater Pipelines | GWR Source Water Diversion Sites |
| Proposed Electrical Line | GWR Treatment Facilities |
| Proposed Product Water Pipeline | GWR Product Water Conveyance |
| Proposed Source Water Pipeline | GWR Injection Wells and Backflush Facilities |

