4.5 BIOLOGICAL RESOURCES: TERRESTRIAL

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4.5.1 Introduction

This section describes the terrestrial biological resources present in the vicinity of the Proposed Project and evaluates the potential effects of construction and operation of the Proposed Project on these resources. These resources include plant communities, wildlife habitats, potentially occurring special-status plant and wildlife species, and natural communities at each of the Proposed Project component sites. Fisheries are addressed in **Section 4.4, Biological Resources: Fisheries** of this EIR and marine biological resources are addressed in **Section 4.3, Air Quality and Greenhouse Gas** of this EIR.

Public and agency comments related to terrestrial biological resources were received during the public scoping period, and are summarized below:

- Potential need for federal agency consultation under the Endangered Species Act;
- Analyze all potentially significant effects on sensitive species and habitats and identify mitigation measures;
- Evaluate if any project components would benefit non-native species;
- Evaluate potential impacts of noise and vibration; and
- Evaluate potential impacts to biological resources associated with “frac-out.”

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA) and/or are raised by responsible agencies, they are identified and addressed within this EIR. For a

complete list of public comments received during the public scoping period, refer to **Appendix A**, **Scoping Report.**

4.5.2 Environmental Setting

The Proposed Project is located within Monterey County and traverses the Monterey Peninsula, which encompasses a broad range of biological resources. Most Proposed Project components would be located primarily within urbanized, developed areas and existing agricultural lands. However, some proposed components would occur within native and non-native habitats. The region within which the project would be located lies near the confluence of the San Francisco Bay, Central Coast, and South Coast Range floristic provinces; the flora of Monterey County is thus among the most diverse in California. The Monterey Bay region represents the population range limits of many rare plant species endemic to northern and southern portions of the state. In general, the Proposed Project would be situated in level to gently sloped topography within eight miles of the ocean, with elevations ranging from sea level to approximately 425 feet above sea level at the proposed Injection Well Facility Site. The average annual precipitation in this portion of Monterey County ranges from 12 to 20 inches; annual temperatures average 59 degrees Fahrenheit.

4.5.2.1 *Biological Project Study Area*[1]

A separate biological Project Study Area[2] was created for the Proposed Project to include all areas where permanent and temporary impacts may occur to biological resources as a result of project construction and operation. The Project Study Area for the Proposed Project was defined using input from the project technical team, preliminary project plans, and assessor parcel information. Relevant information from these sources was combined using Geographic Information Systems (GIS) software to create the final Project Study Area.

The Project Study Area includes the following surface water bodies: Lake El Estero, Roberts Lake, Locke Paddon Lake, Old Salinas River Channel, Reclamation Ditch, Tembladero Slough, Blanco Drain, and Salinas River. This analysis further defines "Affected Reaches" as portions of the Reclamation Ditch, Tembladero Slough, and the Old Salinas River Channel, which have the potential to be affected by the operation of the project as a result of changes in hydrology due to the proposed diversions. These changes have the potential to affect terrestrial biological resources.

4.5.2.2 *Data Sources*

The primary literature and data sources reviewed in order to determine the occurrence or potential for occurrence of special-status species within the Project Study Area are as follows: current agency status information from the U.S. Fish and Wildlife Service (USFWS or Service) and California Department of Fish and Wildlife (CDFW) for species listed, proposed for listing, or candidates for listing as threatened or endangered under the Federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA), and those considered CDFW "species of special concern;" the California Native Plant Society

[1] There have been revisions to the Project Study Area at the Reclamation Ditch and Blanco Drain Diversion sites. The revisions were evaluated and no new impacts were identified (please refer to Attachment 1 of Appendix H).

[2] The Project Study Area includes areas of direct effects and indirect effects to surface waters associated with Source Water Diversions.

(CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2010); and the California Natural Diversity Database (CNDDB) RareFind occurrence reports (CDFW, 2015b). The CNDDB RareFind occurrence reports were reviewed from the Moss Landing, Marina, Monterey, Seaside, and Salinas quadrangles and the surrounding quadrangles (Soquel, Watsonville East, Watsonville West, Mt. Carmel, Prunedale, San Juan Bautista, Natividad, Soberanes Point, Spreckels, Chualar, and Carmel Valley) (**Attachment 2 of Appendix H**).

From these resources, a list of special-status plant and wildlife species known or with the potential to occur in the vicinity of the Project Study Area was developed (refer to **Attachment 3 of Appendix H** of this EIR for more information). The list identifies these species along with their regulatory status, habitat requirements, and a brief statement regarding the likelihood for the species to occur.

Botany

The generalized vegetation classification schemes for California described by Holland (1986) and Sawyer et al. (2009) were consulted in classifying the vegetation within the Project Study Area. The final classification and characterization of the vegetation within the Project Study Area is based on field observations and the List of Vegetation Alliances and Associations (or Natural Communities List) (Sawyer et al. 2009). Although this list replaces all other lists of terrestrial natural communities and vegetation types developed for the CNDDB, the more commonly used terrestrial communities derived from Holland are used in this EIR for ease of reference. **Table 4.5-1**, **Habitat Classifications by Data Source**, includes both the Natural Communities List classification and Holland classification for each habitat type for cross-reference purposes.

Information regarding the distribution and habitats of local and state vascular plants was also reviewed (Howitt and Howell, 1964 and 1973; Munz and Keck, 1973; Hickman, 1993; Baldwin, et al., 2012; Matthews, 2006; Jepson Flora Project, 2014). All plants observed within the Project Study Area were identified using keys and descriptions in Hickman (1993) and Matthews (2006). Scientific nomenclature for plants in this report follows Baldwin, et al., (2012) and common names follow Matthews (2006). A full botanical inventory was not recorded for the Project Study Area; however, the dominant species within each habitat were recorded and all plant species encountered were identified to eliminate them as being special-status species.

The entire Project Study Area, with the exception of a portion of the Product Water Conveyance Coastal Alignment from the existing Regional Treatment Plant through Armstrong Ranch to Del Monte Boulevard, a portion of the Injection Well Facilities site, Old Salinas River Channel Affected Reach, and the Reclamation Ditch and Tembladero Slough Affected Reaches past the top of bank, was surveyed for botanical resources following the applicable guidelines outlined in: *Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed and Candidate Plants* (USFWS, 2000), *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2009), and *CNPS Botanical Survey Guidelines* (CNPS, 2001). No surveys were conducted along the portion of the Product Water Conveyance Coastal Alignment through Armstrong Ranch to Del Monte Boulevard as authorization to survey this area was not received.

Wildlife

The following literature and data sources were reviewed: CDFW reports on special-status wildlife (Remsen, 1978; Williams, 1986; Jennings and Hayes, 1994; Thelander, 1994); California Wildlife Habitat Relationships life history accounts and range maps (CDFW, 2014); and general wildlife references (Stebbins, 2003). A list of all wildlife species observed within the Project Study Area during field surveys is presented in **Attachment 4 of Appendix H.**

Based on the identification of special-status wildlife species with the potential to occur within or in the vicinity of the Project Study Area, it was determined that protocol-level surveys to determine presence or absence were not necessary. There are three protocol-level surveys that could be applicable to the Proposed Project – surveys for the California red-legged frog (CRLF), California tiger salamander (CTS), and burrowing owl. Due to known occurrences of the CRLF within the Project Study Area near the Salinas River (the Salinas Treatment Facility and the Blanco Drain Diversion sites) and burrowing owl along the Product Water Conveyance: RUWAP and Coastal Pipeline options within Armstrong Ranch, the analysis assumes presence of these species at these locations. None of the Proposed Project components are located within 2 km of a known CTS breeding location; therefore, protocol-level surveys for CTS were not conducted. Please see **Section 4.5.2.3** for more details on the analysis of CTS data.

In addition, this analysis assumes that Smith's blue butterfly is present in areas containing the obligate host plants (i.e., areas containing dune or coast buckwheat).

Wetland Delineation

The entire Project Study Area, including the Affected Reaches, was evaluated to identify areas potentially supporting coastal wetlands, state waters, and/or federal jurisdictional wetlands and other waters. A wetland delineation is provided in **Appendix I**. The Reclamation Ditch Diversion site, Tembladero Slough Diversion site, Blanco Drain Diversion site, Lake El Estero, Coastal conveyance pipeline alignment option (Locke Paddon Lake), CalAm Monterey Pipeline (Roberts Lake), and all of the affected reaches were identified as potentially containing wetlands under the jurisdiction of the United States Army Corp of Engineers (USACOE) and/or the California Coastal Commission (CCC). A wetland delineation was conducted in accordance with the requirements set forth by the USACOE in *The Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual* (Wetland Manual) (Wetland Training Institute, 2002). The Wetland Manual defines wetlands and the three environmental diagnostics (or parameters). The 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Supplement) (USACOE, 2008) was used in conjunction with the Wetland Manual as it provides indicators for each parameter that are specific to the Arid West region. Prior to conducting field surveys, available reference materials were reviewed, including the National Wetlands Inventory Wetland Mapper (USFWS, 2014), the Web Soil Survey for Monterey County (USDA, 1978), the list of Hydric Soils of the United States (USDA-NRCS, 2014), the Soil Survey Geographic Database (USDA-NRCS, 2003), and aerial photographs of the site.

Table 4.5-1
Habitat Classifications by Data Source

Data Source	Habitat Type											
	Ruderal /Developed/ Active Agriculture	Non-Native Grassland	Central Maritime Chaparral	Central Coastal Scrub	Central Dune Scrub	Coast Live Oak Woodland	Wastewater Ponds	Riparian	Emergent Wetland	Salt Marsh Wetland	Aquatic	Eucalyptus Grove
A Manual of California Vegetation classifications	none	annual brome grasslands (*Bromus diandrus-Avena* spp. Association)	brittle leaf–wooly leaf manzanita chaparral (*Arctostaphylos* [*crustacea, tomentosa*] shrubland alliance) and sandmat manzanita chaparral (*Arctostaphylos pumila* provisional shrubland alliance)	coyote brush scrub (*Baccharis pilularis* shrubland alliance) and black sage scrub (*Salvia mellifera* shrubland alliance)	silver dune lupine-mock heather scrub (*Lupinus chamissonis-Ericameria ericoides* shrubland alliance)	coast live oak woodland (*Quercus agrifolia/Toxicodendron diversilobum*/ grass association)	none	arroyo willow thickets (*Salix lasiolepis* shrubland alliance)	California bulrush marsh (*Schoenoplectus californicus* herbaceous alliance)	Pickleweed mats (*Salicornia depressa* herbaceous alliance)	none	eucalyptus groves (*Eucalyptus* [*globulus, camaldulensis*] semi-natural woodland stands)
Holland classification	none	non-native grassland	central maritime chaparral	central coastal scrub	central dune scrub	coast live oak woodland	none	central coast arroyo willow riparian forest	coastal and valley freshwater marsh	coastal salt marsh	none	none
CNDDB list of high priority and rare natural communities	not listed	not sensitive	sensitive	not sensitive	sensitive	not sensitive	not listed	sensitive	sensitive	sensitive	not listed	not sensitive

4.5.2.3 *Habitats within the Project Study Area*

Numerous field surveys have been conducted within the Project Study Area over previous years; most recently field surveys were conducted by DD&A in February 2015. These surveys resulted in the mapping and quantification of 11 habitat types within the Project Study Area. **Table 4.5-2, Habitat Types Identified within the Project Study Area** provides the acreages of these habitats within the Project Study Area for each Proposed Project component. A brief description of each of these habitats follows the table, along with a statement regarding the presence or potential presence of special-status species within each habitat type. In addition, each habitat type description begins with listing both the Natural Communities List and Holland vegetation types for cross-reference purposes and identifies whether the habitat type is considered sensitive by CDFW.

Table 4.5-2
Habitat Types Identified within the Project Study Area

Habitat Type (in acres)	Component Name														
	Source Water Diversion and Storage Sites						Treatment Facilities at the Regional Treatment Plant	Product Water Conveyance****		Injection Well Facilities	CalAm Distribution System		Affected Reaches		
	Salinas Pump Station	Salinas Treatment Facility	Reclamation Ditch	Tembladero Slough	Blanco Drain	Lake El Estero		RUWAP Alignment Option	Coastal Alignment Option		Transfer Pipeline	Monterey Pipeline	Reclamation Ditch	Tembladero Slough***	Old Salinas River Channel
Ruderal/Developed/ Active Agriculture	35.9 ac	6.4 ac	0.4 ac	1.2 ac	6.7 ac	0.08 ac	50.6 ac	58.5 ac	50.8 ac	19.9 ac	15.3 ac	38.0 ac	19.8 ac	13.3 ac	4.7 ac
Non-Native Grassland	--	--	--	--	1.0 ac	--	18.9 ac	16.6 ac	23.7 ac	--	--	--	--	0.1 ac	--
Central Maritime Chaparral	--	--	--	--	--	--	--	1.9 ac	--	62.5 ac	--	--	--	--	--
Central Coastal Scrub	--	--	--	--	--	--	--	--	12.9 ac	--	--	--	1.1 ac	--	0.8 ac
Central Dune Scrub	--	--	--	--	--	--	--	--	--	--	--	2.7 ac	--	--	0.5 ac
Coast Live Oak Woodland	--	--	--	--	--	--	--	1.1 ac	--	3.6 ac	–	--	--	--	--
Wastewater Ponds	--	244.1 ac	--	--	--	--	33.1 ac	--	--	--	--	--	--	--	--
Riparian	--	34.7 ac	--	**	0.7 ac	*	--	--	0.6 ac	--	--	0.6 ac	2.5 ac	1.8 ac	0.02 ac
Emergent Wetland	--	--	--	--	--	0.7 ac	--	--	--	--	--	--	--	2.5 ac	2.8 ac
Salt Marsh Wetland	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.0 ac
Aquatic	--	--	0.05 ac	0.2 ac	0.3 ac	17.3 ac	--	--	--	--	--	0.2 ac	12.3 ac	16.4 ac	22.5 ac
Eucalyptus Grove	--	--	--	--	--	--	--	--	--	--	--	2.2 ac	--	--	--

* While riparian habitat is present adjacent to the Project Study Area at Lake El Estero, it is not within the Project Study Area and is, therefore, not quantified.
**Potential CCC jurisdictional wetlands occur within the Tembladero Slough Diversion site (0.01 acre) please refer to the Wetlands and Other Waters discussion in the Sensitive Habitat section for discussion.
*** Habitat associated with a man-made wetland at the confluence of the Old Salinas River Channel and the Tembladero Slough was included in the habitat area attributed to the Tembladero Slough.
**** Habitat and resources associated with the Product Water Conveyance Alignment Options within the Project Study Area from just south of Lightfighter Drive to the Injection Well Facilities is accounted for under the RUWAP Alignment option; however, this portion of the Project Study Area is part of both the RUWAP and Coastal Product Water Conveyance Alignment Options.

Ruderal/Developed/Active Agriculture

Approximately 322 acres of ruderal/developed/active agriculture habitat occur within the Project Study Area, and this habitat type is associated with all Proposed Project components. Ruderal/developed/active agriculture habitat areas are those areas which have been disturbed by human activities and are vegetated by non-native annual grasses and other "weedy" species, or do not contain any vegetation other than row crops. This habitat type includes areas ranging from regularly disturbed areas dominated by non-native herbaceous species adapted to disturbance, to areas with buildings, roads, and pavement.

Most of the ruderal/developed/active agriculture habitat areas within the Project Study Area are nearly or completely devoid of vegetation. Other ruderal/developed/active agriculture areas include row crops or vegetation dominated by ripgut grass (*Bromus diandrus*), slender oat (*Avena barbata*), cut-leaved plantain (*Plantago coronopus*), English plantain (*P. lanceolata*), hottentot fig (*Carpobrotus edulis*), sand mat (*Cardionema ramosissimum*), long-beaked filaree (*Erodium botrys*), and telegraphweed (*Heterotheca grandiflora*).

Common wildlife species that do well in urbanized and disturbed areas can utilize this habitat, such as the American crow (*Corvus brachyrhynchos*), California ground squirrel (*Otospermophilus beecheyi*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), western scrub jay (*Aphelocoma californica*), European starling (*Sturnus vulgaris*), Coast Range fence lizard (*Sceloporus occidentalis bocourtii*), and rock pigeon (*Columba livia*). This habitat type is considered to have low biological value, as it is generally dominated by non-native plant species and consists of relatively low quality habitat from a wildlife perspective.

Special-status wildlife species that may occur in the ruderal/developed/active agricultural habitat areas include the California legless lizard (*Anniella pulchra*) and coast horned lizard (*Phrynosoma blainvillii*), specifically in the open, sandy areas within the Project Study Area of the Product Water Conveyance: Coastal and RUWAP alignment options, Injection Well Facilities, and the CalAm Distribution System: Monterey Pipeline. Raptors, including the white-tailed kite (*Elanus leucurus*), may forage and nest within trees that occur within and adjacent to ruderal areas within all Proposed Project components. Obligate host plants for the Smith's blue butterfly (*Euphilotes enoptes smithi*), coast buckwheat (*Eriogonum latifolium*) and dune buckwheat (*Eriogonum parvifolium*), were identified within this habitat type during the 2014 surveys within the Project Study Areas of the Product Water Conveyance: Coastal alignment option and Cal Am Distribution System: Monterey Pipeline.

Special-status plant species identified during the 2014 botanical surveys within the ruderal/developed areas of the Project Study Area include: Monterey spineflower (*Chorizanthe pungens* var. *pungens*), Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*), Monterey ceanothus (*Ceanothus rigidus*), Eastwood's goldenbush (*Ericameria fasciculata*), and sandmat manzanita (*Arctostaphylos pumila*) (**Table 4.5-3, Special-Status Plant Species Identified within the Project Study Area during Focused Botanical Surveys in Spring 2014**).

Non-Native Grassland

Non-native grasslands typically occur throughout California in open areas of valleys and foothills, usually on fine-textured clay or loam soils that are somewhat poorly drained (Holland, 1986). Non-native grasslands are often dominated by non-native annual grasses and forbs along with scattered native grasses and wildflowers. Within the Project Study Area, this habitat type occurs within approximately 60 acres at the Blanco Drain Diversion site, Treatment Facilities at the Regional Treatment Plant, within the Product Water Conveyance: RUWAP and Coastal alignment options, and along the Tembladero Slough Affected Reach. The non-native

grasslands at the Treatment Facilities at the Regional Treatment Plant, Blanco Drain Diversion site, and Tembladero Slough Affected Reach are highly disturbed. Although non-native grassland is present within these Proposed Project component sites, due to on-going disturbance activities at these sites, the habitat does not provide suitable habitat for special-status plant or wildlife species.

The non-native grassland habitat is disturbed and includes many of the same species as the ruderal habitat described above. However, instead of herbaceous species, annual grasses are dominant, such as ripgut brome, soft chess (*Bromus hordeaceus*), rattail fescue (*Vulpia myuros*), slender oat, barnyard foxtail (*Hordeum murinum* spp. *leporinum*), and perennial ryegrass (*Lolium perenne*). Non-native grasslands provide habitat to a number of wildlife species, including rodents and reptiles, such as the Botta's pocket gopher (*Thomomys bottae*), California ground squirrel, northern pacific rattlesnake (*Crotalus oreganus* ssp. *oreganus*), gopher snake (*Pituophis catenifer catenifer*), coast garter snake (*Thamnophis elegans terrestris*), and western fence lizard. Raptors are also known to forage in this habitat. Additional avian species that may be found within non-native grassland habitat are presented in **Attachment 5 of Appendix H.**

Special-status wildlife species that have the potential to occur within the non-native grasslands within the Product Water Conveyance: RUWAP and Coastal alignment options include the American badger (*Taxidea taxus*), Monterey ornate shrew (*Sorex ornatus salarius*), western burrowing owl (*Athene cunicularia*), California horned lark (*Eremophila alpestris actia*), California legless lizard, and coast horned lizard. Special-status avian and bat species may also forage and nest within this habitat type, including the white-tailed kite and pallid bat. Three special-status plant species were identified within this habitat type during the 2014 surveys: Monterey spineflower, Kellogg's horkelia, and sandmat manzanita.

Central Maritime Chaparral

Central maritime chaparral is a plant community found within the coastal fog zone on sandy to rocky soils. Many of the plants in the chaparral community require fire in order to propagate. This habitat type is dominated by sclerophyllous (having hard, thick, leathery leaves) shrubs that may be drought-deciduous or evergreen, and are often spiny. Within the Project Study Area, central maritime chaparral occurs within approximately 64 acres of the Product Water Conveyance: RUWAP Pipeline option and the Injection Well Facilities site.

Dominant plant species include shaggy-bark manzanita (*Arctostaphylos tomentosa* ssp. *tomentosa*), sandmat manzanita, coyote bush (*Baccharis pilularis*), deerweed (*Acmispon glaber*), chamise (*Adenostoma fasciculatum*), and sticky monkey flower (*Mimulus aurantiacus*). Additional species include California coffeeberry (*Frangula californica*), poison oak (*Toxicodendron diversilobum*), black sage (*Salvia mellifera*), mock heather (*Ericameria ericoides*), Eastwood's goldenbush (*E. fasciculata*), Monterey ceanothus, coast live oak (*Quercus agrifolia*), rush rose (*Crocanthemum scoparium*), golden yarrow (*Eriophyllum confertiflorum*), sticky cinquefoil (*Drymocallis glandulosa*), Monterey spineflower, Michael's rein orchid (*Piperia michaelii*), globe lily (*Calochortus albus*), and checker lily (*Fritillaria affinis*).

Common wildlife species that occur within central maritime chaparral habitat include California quail (*Callipepla californica*), California towhee (*Melozone crissalis*), California thrasher (*Toxostoma redivivum*), common poorwill (*Phalaenoptilus nuttallii*), Anna's hummingbird (*Calypte anna*), wrentit (*Chamaea fasciata*), western scrub jay, northern pacific rattlesnake, Coast Range fence lizard, gopher snake, coast garter snake, and brush rabbit (*Sylvilagus bachmani*). Additional avian species that may be found within central maritime chaparral habitat are presented in **Attachment 5 of Appendix H**.

Maritime chaparral is identified as a sensitive habitat on the CNDDB's list of high priority and rare natural communities (CDFW, 2010). Special-status plant species identified within this habitat type during the 2014 surveys are Monterey spineflower, sandmat manzanita, Monterey ceanothus, and Eastwood's goldenbush.[3] Special-status wildlife that may occur within this habitat are California legless lizard, Monterey ornate shrew, and Monterey dusky-footed woodrat (*Neotoma macrotis luciana*). Special-status avian and bat species may also forage and nest within this habitat type.

Central Coastal Scrub

Holland (1986) describes central coastal scrub habitat as an area with dense shrubs, approximately one to two meters tall, which lacks grassy openings and is often integrated with other habitat types. Central coastal scrub occurs in river mouths, stream sides, terraces, stabilized dunes of coastal bars, spits along the coastline, coastal bluffs, open slopes, and ridges. Soils are variable, typically sandy to relatively heavy clay (Sawyer et al., 2009). Central coastal scrub habitats provide cover and food for a number of wildlife species, including songbirds, snakes, lizards, rodents, and other small mammals. Central coastal scrub habitat within the Project Study Area occurs within approximately 15 acres along the Product Water Conveyance: Coastal Pipeline option, Reclamation Ditch Affected Reach, and Old Salinas River Channel Affected Reach. However, these areas also include several of the same herbaceous understory species as the ruderal areas, such as hottentot fig. Dominant shrub species in the coastal scrub habitat include coyote bush, California coffeeberry, Monterey ceanothus, poison oak, coast sagebrush (*Artemisia californica*), black sage, mock heather, and sticky monkey flower.

Central coastal scrub habitats provide cover and food for a number of wildlife species, including songbirds, snakes, lizards, rodents, and other small mammals. Common species that may occur within the central coastal scrub habitat include California quail, blue-gray gnatcatcher (*Polioptila caerulea*), Anna's hummingbird, Coast Range fence lizard, northern pacific rattlesnake, gopher snake, brush rabbit, and California ground squirrel. Additional avian species that may be found within the central coastal scrub habitat are presented in **Attachment 5 of Appendix H.**

The following special-status plant species were identified within this habitat type: Monterey spineflower, Monterey ceanothus, and sandmat manzanita.[4] No special-status wildlife species were observed within this habitat type; however, California legless lizard, coast horned lizard, Monterey dusky-footed woodrat, and Monterey ornate shrew may occur throughout the central coastal scrub within the Project Study Area. Special-status avian and bat species may also nest and forage within this habitat type. Smith's blue butterfly may also occur within this habitat type where coast and dune buckwheat are present.

Central Dune Scrub

Silver dune lupine-mock heather scrub, or central dune scrub, occurs in the stabilized dunes of coastal bars, river mouths, spits along the coastline, coastal bluff, and terraces (Sawyer et al.,

[3] Please note that focused botanical surveys were conducted in a portion of the Injection Well Facilities site as additional area was added to the component after the appropriate identification period; therefore, the remainder of the component site would require focused botanical surveys to determine presence of special-status plant species if construction is proposed in this area.

[4] Please note that focused botanical surveys were not conducted within the coastal dune scrub habitat along the Reclamation Ditch Affected Reach and Old Salinas River Channel Affected Reach as these areas would not be directly impacted by construction activities.

2009). Holland (1986) describes central dune scrub as a dense coastal scrub community of scattered shrubs, subshrubs, and herbs, generally less than one meter tall and often developing considerable cover. Within the Project Study Area, this habitat type occurs within approximately three acres along the CalAm Distribution System: Monterey Pipeline alignment and along the Old Salinas River Channel Affected Reach. Dominant plant species within the central dune scrub habitat include silver dune lupine (*Lupinus chamissonis*), mock heather, beach sagewort (*Artemisia pycnocephala*), coast buckwheat, deerweed, and hottentot fig.

Central dune scrub is identified as a sensitive habitat on the CNDDB's list of high priority and rare natural communities (CDFW, 2010). Special-status coast wallflower is observed within this habitat type within the Project Study Area. Special-status wildlife species with the potential to occur within this habitat type include coast horned lizard, California legless lizard, western burrowing owl, and Smith's blue butterfly (where coast and/or dune buckwheat is present).

Coast Live Oak Woodland

Approximately five acres of coast live oak woodland (*Quercus agrifolia*/*Toxicodendron diversilobum*/grass Association) are present within the Project Study Area along the Product Water Conveyance: RUWAP Pipeline option and the Injection Well Facilities site. The canopy is quite dense in many areas with an understory dominated by poison oak. Other plant species present within the coast live oak woodland include hedge-nettle (*Stachys* sp.), slender oat, shaggy-bark manzanita, sheep sorrel (*Rumex acetosella*), fiesta flower (*Pholistoma auritum*), and scattered shrubs such as fuchsia-flowered gooseberry (*Ribes speciosum*), California coffeeberry, and sticky monkey flower.

Coast live oak woodland is an important habitat to many wildlife species. Oaks provide nesting sites for many avian species and cover for a variety of mammals, including mourning dove (*Zenaida macroura*), American kestrel (*Falco sparverius*), California ground squirrel, and California pocket mouse (*Chaetodipus californicus*). Acorns provide an important food source for acorn woodpecker (*Melanerpes formicivorus*), western scrub jay, and black-tailed deer (*Odocoileus hemionus columbianus*). Other common wildlife species found in the coast live oak woodland are raccoon, Nuttall's woodpecker (*Picoides nuttallii*), northern flicker (*Colaptes auratus*), bobcat (*Lynx rufus*), and coyote (*Canis latrans*). Generally, red-tailed hawks (*Buteo jamaicensis*) and great-horned owls (*Bubo virginianus*) nest and roost in the coast live oaks. Additional avian species that may be found within the oak woodland habitat are presented in **Attachment 5 of Appendix H**.

Monterey spineflower was identified at the edges of the coast live oak woodland habitat within the Project Study Area. Special-status wildlife species with the potential to occur within this habitat type include Monterey dusky-footed woodrat, Monterey ornate shrew, California legless lizard, coast horned lizard, special-status bat species, nesting raptors, including white-tailed kite, and other migratory bird species.

Oak woodlands are considered important natural communities because they provide a variety of ecological, aesthetic, and economic values. The extent of oak woodland in California has declined due to agricultural conversion, urban development, fuel wood harvesting, and grazing activities. Coast live oak woodland is not considered a sensitive habitat by CDFW (CDFW, 2010); however, coast live oak trees and woodland are typically protected under local tree removal ordinances.

Wastewater Ponds

Wastewater ponds are present at the Salinas Treatment Facility and Treatment Facilities at the Regional Treatment Plant component sites of the Project Study Area, totaling approximately 277 acres.

Residential, commercial, and industrial wastewater is conveyed to the MRWPCA Regional Treatment Plant. Secondary treated effluent from the Regional Treatment Plant is also recycled at the co-located Salinas Valley Reclamation Plant for irrigation of 12,000 acres of farmland in the northern Salinas Valley. The existing facilities at the Regional Treatment Plant, including the Reclamation Plant, are designed and permitted to produce up to 29.6 MGD of recycled water. The Salinas Valley Reclamation Plant includes an 80 acre-foot storage pond that holds tertiary-treated and Salinas River water before it is distributed to farmland by a distribution system called the Castroville Seawater Intrusion Project. The use of recycled wastewater for irrigation reduces regional dependence on and use of local groundwater, which, in turn reduces groundwater pumping-related seawater intrusion into the Salinas Valley aquifers. The pond at the Treatment Facilities at the Regional Treatment Plant is lined with plastic and contains no vegetation. It does not provide any suitable habitat for special-status plant species. This recycled water storage pond may provide habitat for waterfowl and other migratory bird species; however, it does not provide any suitable habitat for other special-status wildlife species.

The City of Salinas operates an industrial wastewater conveyance and treatment system that serves approximately 25 agricultural processing and related businesses located east of Sanborn Road and south of U.S. Highway 101. This wastewater collection system is completely separate from the Salinas municipal sewage collection system and includes 14-inch to 33-inch diameter gravity pipelines that flow to the Salinas Pump Station, and then flow into a 42-inch gravity pipeline to the Salinas Treatment Facility. Over 80% of the wastewater flows in this system are from fresh vegetable packers (typically, wash water used on harvested row crops). The Salinas Treatment Facility consists of an influent pump station, an aeration lagoon, percolation ponds, and rapid infiltration beds to treat, percolate, and evaporate the water. Disturbed and developed areas associated with the wastewater ponds at the Salinas Treatment Facility, including access roads and berms surrounding the ponds, were included in this habitat type.

Roads and berms surrounding the wastewater ponds and ponds that are not currently functioning are denuded or support ruderal vegetation species, such as cheeseweed (*Malva parviflora*), poison hemlock (*Conium maculatum*), ripgut brome, slender oat, cut-leaved plantain, long-beaked filaree, and bur clover (*Medicago polymorpha*). These areas are regularly disturbed and the vegetation maintained by methods such as mowing and/or plowing, or herbicide. Some of the infiltration beds also support a limited amount of emergent vegetation, such as brass buttons (*Cotula coronopifolia*) and bulrush (*Scirpus* sp.).

Common wildlife species which do well in urbanized and disturbed areas can utilize these areas, such as the California ground squirrel, raccoon, striped skunk, and Coast Range fence lizard. However, these areas also provide suitable habitat for avian species, including waterfowl, such as mallard (*Anas platyrhynchos*), Canada goose (*Branta canadensis*), American coot (*Fulica americana*), gadwall (*Anas strepera*), ruddy duck (*Oxyura jamaicensis*), great blue heron (*Ardea herodias*), American avocet (*Recurvirostra americana*), and dowitcher (*Limnodromus* sp.).

Special-status wildlife species that may occur within the wastewater ponds at the Salinas Treatment Facility site include tricolored blackbird (*Agelaius tricolor*) and other migratory avian species. The pond at the Treatment Facilities at the Regional Treatment Plant may provide

habitat for protected waterfowl and other migratory bird species. No special-status plant species were identified within these areas.

Riparian

Riparian habitats are those plant communities supporting woody vegetation found along rivers, creeks, streams, canyon bottom drainages, and seeps. Riparian habitat, or Arroyo willow thickets, occurs within stream banks and benches, slope seeps, and stringers along drainages (Sawyer et al., 2009). Holland (1986) describes this habitat type as a dense, low, closed-canopy, broadleaved, winter-deciduous riparian forest dominated by Arroyo willow (*Salix lasiolepis*) that occurs on moist to saturated sandy or gravelly soil, especially on bottomlands. Wetlands may occur within this habitat type. Riparian habitat is present within four components of the Project Study Area and along the affected reaches, totaling approximately 41 acres. Riparian habitat is present at the Salinas Treatment Facility site (34.7 acres), Blanco Drain Diversion site (0.7 acre), along the Product Water Conveyance: Coastal Pipeline option (0.6 acres at Locke Paddon Lake), and CalAm Distribution System: Monterey Pipeline (0.6 acres at Roberts Lake). Additionally, there are areas of riparian habitat that occur along the Reclamation Ditch Affected Reach (2.5 acres), Tembladero Slough Affected Reach (1.8 acres), and the Old Salinas River Channel Affected Reach (0.02 acres).

Riparian areas provide habitat for many wildlife species, particularly birds and herpetofauna (the reptiles and amphibians of a particular region or habitat). Common species that may be found within the riparian habitat in the Project Study Area includes Sierran treefrog (*Pseudacris sierra*), Monterey ensatina (*Ensatina eschscholtzii eschscholtzii*), tree swallow (*Tachycineta bicolor*), song sparrow (*Melospiza melodia*), and Pacific-slope flycatcher (*Empidonax difficilis*). Additional avian species that may be found within the riparian habitat are presented in **Attachment 5 of Appendix H**.

The riparian habitat at Roberts Lake is highly disturbed; however, it may provide suitable habitat for the western pond turtle (*Actinemys marmorata*) and Salinas harvest mouse (*Reithrodontomys megalotis distichlis*). Riparian habitat at Locke Paddon Lake may also provide suitable habitat for these two species as well as the Monterey dusky-footed woodrat, Monterey ornate shrew, tricolored blackbird, Coast Range newt (*Taricha torosa torosa*), and two-striped garter snake (*Thamnophis hammondii*). The riparian habitat at the Salinas Treatment Facility site and the Blanco Drain Diversion site along the Salinas River may provide habitat for all these species, as well as nesting raptors and other migratory bird species. Additionally, the California red-legged frog (*Rana draytonii*) (CRLF) is assumed present within the riparian habitat at the Salinas Treatment Facility site, as this species is known to occur and breed within and adjacent to the Salinas River. The riparian habitat within the three Affected Reaches may support western pond turtle, Coast Range newt, two-striped garter snake, Monterey dusky-footed woodrat, and Monterey ornate shrew. Special-status bat species and protected avian species may also utilize riparian habitat at all Proposed Project component sites. Due to the salinity and lack of suitable breeding habitat, CRLF is not expected to occur within the three Affected Reaches. No special-status plant species were identified within this habitat type. Riparian habitat is considered by the CDFW to be a sensitive habitat.

Emergent Wetlands

Emergent wetland habitats are those plant communities of herbaceous vegetation found in brackish to freshwater marshes, as well as along banks, bars, and channels of estuaries. This habitat is typically found within the elevation range of 0 to 200 meters above sea level (Sawyer et al., 2009). California bulrush (*Schoenoplectus californicus*) is the dominant species present in

this habitat. Other species present may include pacific silver-weed (*Potentilla anserina* ssp. *pacifica*), saltbush (*Atriplex* sp.), fleshy jaumea (*Jaumea carnosa*), and mule fat (*Baccharis salicifolia*). Within the Project Study Area, this habitat occurs in areas near the coastline. Approximately six acres of emergent wetland habitat is present within the Project Study Area. Emergent wetlands are present at Lake El Estero (0.7 acre), along the Tembladero Slough Affected Reach (2.5 acres), and along the Old Salinas River Channel Affected Reach (2.8 acres).

Emergent wetland areas may be used by common wildlife species including waterfowl such as the Canada goose, mallards, American coot, and great egret (*Ardea alba*). This habitat may also be used by amphibians including the sierra treefrog (*Pseudacris sierra*).

No special-status plant species were identified within the emergent wetland habitat, and none are expected to occur. The emergent wetland habitat may support the following special-status wildlife species: western pond turtle, Coast Range newt, two-striped garter snake, Salinas harvest mouse, tricolored blackbird, and nesting raptors, migratory birds, and other protected avian species.

Salt Marsh Wetlands

Salt marsh wetland habitat, or pickleweed mats, occurs along the downstream portions of the Old Salinas River Channel Affected Reach (13 acres). This habitat is composed of salt tolerant plant communities supporting herbaceous cover that are typically found along inland margins of lagoons, bays, and estuaries. This habitat experiences regular inundation by salt water for at least part of the year (Holland, 1986). This habitat is typically found within the limited elevation range of 0.15 meters to 2.5 meters above sea level. Species diversity within this habitat tends to vary with the age of the stand, with younger stands having a lower diversity (Sawyer et al. 2009). The dominant plant species present in this habitat is pickleweed (*Salicornia pacifica*). Other species present may include fleshy jaumea, alkali heath (*Frankenia salina*), gum-plant (*Grindelia stricta*) and salt grass (*Distichlis spicata*). This alliance has been identified as sensitive (CDFW, 2010).

Common wildlife using this salt marsh wetland habitat includes various species of waterfowl.

No special-status plant species were identified within the salt marsh habitat, and none are expected to occur. The salt marsh habitat may support the following special-status wildlife species: western pond turtle, Coast Range newt, two-striped garter snake, Salinas harvest mouse, tricolored blackbird, and nesting raptors, migratory birds, and other protected avian species.

Aquatic

Aquatic habitat within the Project Study Area is present within five component sites and the three Affected Reaches, totaling approximately 69 acres. Aquatic habitat occurs at four source water diversion component sites (Reclamation Ditch, Tembladero Slough, Blanco Drain, and Lake El Estero), Roberts Lake along the CalAm Distribution System: Monterey Pipeline, and within the Affected Reaches (Reclamation Ditch, Tembladero Slough, and Old Salinas River Channel). Additionally, Locke Paddon Lake and the Salinas River are adjacent to the Project Study Area along the Product Water Conveyance: Coastal Pipeline option and Salinas Treatment Facility site.

The Reclamation Ditch is a maintained, channelized ditch surrounded along almost its entire length by development and agriculture. The Tembladero Slough is downstream of, and connected to, the Reclamation Ditch. Like the Reclamation Ditch, the Tembladero Slough is

almost completely barren of vegetation and surrounded by agriculture. Downstream and connected to the Tembladero Slough, the Old Salinas River Channel extends to the Potrero Tide Gates and is tidally influenced and brackish. There are diversion facilities proposed on the Tembladero Slough and Reclamation Ditch. As described above, the Affected Reaches of the Proposed Project include the Old Salinas River Channel, as well as portions of the Reclamation Ditch and Tembladero Slough.

A proposed diversion site is located on the Blanco Drain and the proposed pipeline to convey water diverted from Blanco Drain would cross the Salinas River. The Blanco Drain system, commonly referred to as Blanco Drain, drains the surrounding agriculture surface run-off and tile drainage. The Blanco Drain is tributary to the Salinas River. A 50-foot long reach of the Salinas River was included in the Blanco Drain Diversion site and is bordered by willows adjacent to agricultural fields.

Lake El Estero is a small lake, surrounded by a multi-use recreation area in the City of Monterey. The lake is fed by four tributary streams and functions as part of the City of Monterey storm water collection system. Small areas of bulrush are present around the edges of the lake.

The CalAm Distribution System: Monterey Pipeline alignment runs along the southeastern border of Roberts Lake, which is located within the City of Seaside. Roberts Lake is a perennial lagoon surrounded by a narrow band of wetlands that empties directly into the Monterey Bay. Roberts Lake is a brackish-water resource that is influenced by both tidal and freshwater inputs.

The Product Water Conveyance: Coastal Pipeline alignment option runs along the eastern border of Locke Paddon Lake, which is located within the City of Marina. Locke Paddon Lake is a vernal pond surrounded by a wide margin of emergent and forested/shrub wetlands.

Common wildlife using these aquatic habitats include waterfowl such as Canada goose, mallard, American coot, great egret, and cormorants (*Phalacrocorax* sp.).

No special-status plant species were identified or anticipated to occur within the aquatic habitat areas. The aquatic habitat may support the following special-status wildlife species: western pond turtle, California red-legged frog, Coast Range newt, and two-striped garter snake.

Eucalyptus Grove

A grove of eucalyptus trees (*Eucalyptus globulus*) is present within the Project Study Area (approximately two acres), located across from the Naval Postgraduate School in the City of Monterey along the CalAm Distribution System: Monterey Pipeline. This small grove extends along an existing recreation trail and has a maintained understory. An occurrence of monarch butterfly (*Danaus plexippus*) is identified by the CNDDB within the eucalyptus grove. Additionally, raptors may nest within these trees. No other special-status wildlife species are expected to occur within this habitat type. No special-status plant species were identified within this habitat type during the 2014 surveys.

4.5.2.4 *Special-Status Species*

The Project Study Area was surveyed for the presence or potential presence of a number of special-status species. The special-status species in the following section are discussed due to their potential or known presence within the Project Study Area and potential to be impacted by the Proposed Project. In addition, some special-status wildlife species that are unlikely or have a low potential to occur are included in the discussion below due to their local or regional importance.

Special-status species are those plants and animals that have been formally listed or proposed for listing as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA). Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of rare or endangered under CEQA Guidelines Section 15380 are also considered special-status species. Animals on the CDFW's list of "species of special concern" (most of which are species whose breeding populations in California may face extirpation if current population trends continue) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA. Additionally, the CDFW also includes some animal species that are not assigned any of the other status designations in the CNDDB "Special Animals" list. The CDFW considers the taxa on this list to be those of greatest conservation need, regardless of their legal or protection status.

Plants listed as rare under the California Native Plant Protection Act (CNPPA) or included listed in California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR, formerly known as CNPS Lists) 1A, 1B, 2A, and 2B are also treated as special-status species as they meet the definitions of Sections 2062 and 2067 of the CESA and in accordance with CEQA Guidelines Section 15380.[5] In general, the CDFW requires that plant species on CRPR 1A (Plants presumed extirpated in California and Either Rare or Extinct Elsewhere), CRPR 1B (Plants rare, threatened, or endangered in California and elsewhere), CRPR 2A (Plants presumed extirpated in California, but more common elsewhere); and CRPR 2B (Plants rare, threatened, or endangered in California, but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2010) be fully considered during the preparation of environmental documents relating to CEQA.[6] In addition, species of vascular plants, bryophytes, and lichens listed as having special-status by CDFW are considered special-status plant species (CDFW, 2015a).

Raptors (e.g., eagles, hawks, and owls) and their nests are protected under both federal and state laws and regulations. The federal Migratory Bird Treaty Act (MBTA) of 1918 and California Fish and Game Code Section 3513 prohibit killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the Interior. Birds of prey are protected in California under Fish and Game Code Section 3503.5. This section states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto." In addition, fully protected species under the Fish and Game Code Section 3511 (birds), Section 4700 (mammals), Section 5515 (fish), and Section 5050 (reptiles and amphibians) are also considered special-status animal species. Species with no formal special-status designation but thought by experts to be rare or in serious decline are also considered special-status animal species (CDFW, 2015b).

[5] CNPS initially created five CRPR in an effort to categorize degrees of concern; however, in order to better define and categorize rarity in California's flora, the CNPS Rare Plant Program and Rare Plant Program Committee have developed the new CRPR 2A and CRPR 2B.

[6] Species on CRPR 3 (Plants about which we need more information - a review list) and CRPR 4 (Plants of limited distribution - a watch list) may, but generally do not, meet the definitions of Sections 2062 and 2067 of CESA, and are not typically considered in environmental documents relating to CEQA. However, this analysis considers species on CRPR 3 or 4 as special-status species when the species is also a Fort Ord Habitat Management Plan (HMP) species. Please refer to **Section 4.5.3.3**, **Regional and Local**, for a discussion about the HMP.

After careful consideration, the CDFW has removed the USFWS's federal "species of concern" designation from the CNDDB. The federal species of concern list was an internal Service list maintained by some of the field offices comprised of taxa that were formerly designated as Candidate categories C1 and C2 plus some other miscellaneous taxa. This list is no longer updated within the Service's Ventura Office, which includes Monterey County as part of its area of responsibility. As a result, the federal species of concern designation is not considered an indicator of special-status species status in this analysis.

Tables 4.5-3 and 4.5-4, Special-Status Terrestrial Wildlife Species Known or With Moderate to High Potential to Occur Within the Project Study Area on the following pages outline the presence or potential presence of special-status plant and wildlife species within each of the Proposed Project component areas. **Table 4.5-3,** also identifies the area occupied by each observed special-status plant species within each of the surveyed Proposed Project component areas. All other special-status plant species presented in **Attachment 3 of Appendix H** are assumed "not present" based on the results of the focused special-status plant surveys and, for those Proposed Project component areas not surveyed, the likelihood to occur is described. All other special-status wildlife species presented in **Attachment 3 of Appendix H** are assumed "unlikely to occur" and/or "unlikely to be impacted" for the species-specific reasons presented. Only those special-status species that are known or have a moderate and high potential to occur within the Project Study Area are discussed in the impacts and mitigation section.

Table 4.5-3
Special-Status Plant Species Identified within the Project Study Area during Focused Botanical Surveys in 2014

Species Name	Component Name														
	Source Water Diversion and Storage Sites						Treatment Facilities at Regional Treatment Plant	Product Water Conveyance***		Injection Well Facilities*	CalAm Distribution System		Affected Reaches		
	Salinas Pump Station	Salinas Treatment Facility Storage and Recovery	Reclamation Ditch	Tembladero Slough	Blanco Drain	Lake El Estero		RUWAP Alignment Option	Coastal Alignment Option*		Transfer Pipeline	Monterey Pipeline	Reclamation Ditch*	Tembladero Slough*	Old Salinas River Channel*
Sandmat manzanita (*Arctostaphylos pumila*)	--	--	--	--	--	--	--	0.5 ac	0.5 ac	8.9 ac**	--	--	--	--	--
Monterey ceanothus (*Ceanothus rigidus*)	--	--	--	--	--	--	--	1,341 sq. ft.	0.3 ac	17.8 ac**	--	38 sq. ft.	--	--	--
Monterey spineflower (*Chorizanthe pungens* var. *pungens*)	--	--	--	--	--	--	--	0.1 ac	0.3 ac	0.1 ac**	--	--	--	--	--
Eastwood's goldenbush (*Ericameria fasciculata*)	--	--	--	--	--	--	--	198 sq. ft.	--	2.8 ac**	--	--	--	--	--
Coast wallflower (*Erysimum ammophilum*)	--	--	--	--	--	--	--	--	--	--**	--	337 sq. ft.	--	--	--
Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*)	--	--	--	--	--	--	--	2 sq. ft.	0.1 ac	2 sq. ft.**	--	--	--	--	--

*Focused botanical surveys were not conducted in portions of these component sites.
**Additional areas were added to the Injection Well Facilities (approximately 39 acres) and Salinas Treatment Facility (approximately 6 acres) following the 2014 Focused Botanical Survey after the appropriate identification period. Other areas of special-status plant species may be present in the additional area.
***Habitat and resources associated with the Product Water Conveyance Alignment Options within the Project Study Area from just south of Lightfighter Drive to the Injection Well Facilities is accounted for under the RUWAP Alignment option; however, this portion of the Project Study Area is part of both the RUWAP and Coastal Product Water Conveyance Alignment Options

Table 4.5-4
Special-Status Terrestrial Wildlife Species Known or With Moderate to High Potential to Occur Within the Project Study Area

Species Name	Component Name														
	Source Water Diversion and Storage Sites						Treatment Facilities at Regional Treatment Plant	Product Water Conveyance		Injection Well Facilities	CalAm Distribution System		Affected Reaches		
	Salinas Pump Station	Salinas Treatment Facility Storage and Recovery	Reclamation Ditch	Tembladero Slough	Blanco Drain	Lake El Estero		RUWAP Alignment Option	Coastal Alignment Option		Transfer Pipeline	Monterey Pipeline	Reclamation Ditch	Tembladero Slough	Old Salinas River Channel
Invertebrates															
Monarch butterfly (*Danaus plexippus*)	--	--	--	--	--	--	--	--	--	--	--	H/O	--	--	--
Smith's blue butterfly (obligate host plant acreages) (*Euphilotes enoptes smithi*)	--	--	--	--	--	--	--	--	H (0.4 acre)	--	--	H/O (1.0 acre)	H	--	H
Amphibians and Reptiles															
Western pond turtle (*Actinemys marmorata*)	--	H	--	--	H	H	--	--	H/O	--	--	H	H	H	H
California legless lizard (*Anniella pulchra*)	--	--	--	--	--	--	--	H/O	H/O	H	--	H	H	--	H
Coast horned lizard (*Phrynosoma blainvillii*)	--	--	--	--	--	--	--	H/O	H/O	H	--	H	H	--	H
California red-legged frog (*Rana draytonii*)	--	H/O	--	--	H/O	--	--	--	--	--	--	--	--	--	--
Coast Range newt (*Taricha torosa*)	--	H	--	--	H	H	--	--	H	--	--	H	H	H	H
Two-striped garter snake (*Thamnophis hammondii*)	--	H	--	--	H	H	--	--	H	--	--	H	H	H	H
Mammals															
Monterey dusky-footed woodrat (*Neotoma macrotis luciana*)	--	H	--	--	H	--	--	H	H	K	--	--	H	H	H
Salinas harvest mouse (*Reithrodontomys megalotis distichlis*)		H	--	--	H	H	--	O	H/O	--	O	H/O	H	H	H/O
Monterey ornate shrew (*Sorex ornatus salarius*)	--	H	--	--	H	--	--	H	H	H	--	H	H	H	H

Table 4.5-4
Special-Status Terrestrial Wildlife Species Known or With Moderate to High Potential to Occur Within the Project Study Area

Species Name	Component Name														
	Source Water Diversion and Storage Sites						Treatment Facilities at Regional Treatment Plant	Product Water Conveyance		Injection Well Facilities	CalAm Distribution System		Affected Reaches		
	Salinas Pump Station	Salinas Treatment Facility Storage and Recovery	Reclamation Ditch	Tembladero Slough	Blanco Drain	Lake El Estero		RUWAP Alignment Option	Coastal Alignment Option		Transfer Pipeline	Monterey Pipeline	Reclamation Ditch	Tembladero Slough	Old Salinas River Channel
American badger (*Taxidea taxus*)	--	--	--	--	--	--	--	H	H	--	O	O	--	--	--
Hoary bat (*Lasiurus cinereus*)	H	H	--	--	H	--	--	H	H	H	--	H	H	H	H
Pallid bat (*Antrozous pallidus*)	H	H	--	--	H	--	--	H	H	H	--	H	H	H	H
Birds															
Tricolored blackbird (*Agelaius tricolor*)	--	H	--	--	H	H	--	--	H/O	--	--	H	H	H	H
Western burrowing owl (*Athene cunicularia*)	--	--	--	--	--	--	--	H/O	H/O	--	--	H/O	--	--	--
California horned lark (*Eremophila alpestris actia*)	--	H	--	--	--	--	--	H/O	H/O	--	--	--	--	--	--
White-tailed kite (*Elanus leucurus*)	--	--	--	--	--	--	--	K/O	H/O	--	--	--	--	--	--
Nesting Raptors, Migratory Birds, and Other Protected Avian Species	H	H	--	--	H	H	H	H	H	H	H	H	H	H	H

H = Habitat Present within Project Study Area; O = Occurrence (from CNDDB or other resource) within Project Study Area; K = Known (Observed) within Project Study Area

Special-Status Plant Species

Sandmat Manzanita

Sandmat manzanita is a CNPS Rank 1B and Fort Ord Habitat Management Plan (HMP) species. This evergreen shrub in the Ericaceae family blooms from February to May. Sandmat manzanita is associated with openings in chaparral, coastal scrub, closed cone coniferous forest, coastal dunes, and cismontane woodland habitats on sandy soils at elevations between 3-205 meters.

The CNDDB reports 12 occurrences of this species in the 16 quadrangles reviewed, two of which include portions of the Project Study Area. This species was identified during the 2014 botanical surveys at the Injection Well Facilities site, throughout Fort Ord Dunes State Park (Product Water Conveyance: Coastal alignment option), and near California State University at Monterey Bay (CSUMB) (Product Water Conveyance: RUWAP alignment option). Please refer to **Table 4.5-3** and **Attachment 6 of Appendix H** for the area occupied by sandmat manzanita within the Project Study Area by Proposed Project component.

Monterey Ceanothus

Monterey ceanothus is a CNPS Rank 4 and Fort Ord HMP species. This evergreen shrub in the Rhamnaceae family blooms from February to April (sometimes through June). This species is associated with closed-cone coniferous forests, chaparral, and coastal scrub on sandy soils at elevations between 3-550 meters.

The CNDDB does not report any occurrences of this species within the 16 quadrangles reviewed; however, it is known to occur throughout the former Fort Ord. Monterey ceanothus was identified during the 2014 botanical surveys at the Injection Well Facilities site, throughout Fort Ord Dunes State Park (Product Water Conveyance: Coastal alignment option), within Sand City (CalAm Distribution System: Monterey Pipeline), and near CSUMB (Product Water Conveyance: RUWAP alignment option). Please refer to **Table 4.5-3** and **Attachment 6 of Appendix H** for the area occupied by Monterey ceanothus within the Project Study Area by Proposed Project component.

Monterey Spineflower

Monterey spineflower is a federally threatened, CNPS Rank 1B, and Fort Ord HMP species. There is designated critical habitat adjacent to the Project Study Area west of the Product Water Conveyance: Coastal Pipeline alignment option as it runs along Fort Ord Dunes State Park, and a recovery plan has been approved for this species. It is a small, prostrate annual herb in the Polygonaceae family that blooms from April to June. The white to rose floral tube of Monterey spineflower distinguishes it from the more common, but closely related, diffuse spineflower (*Chorizanthe diffusa*), which has a lemon-yellow floral tube. Monterey spineflower typically occurs on open sandy or gravelly soils on relic dunes in coastal dune, coastal scrub, and maritime chaparral habitats, though it can also be associated with cismontane woodlands and valley and foothill grasslands, within a range of 3-450 meters in elevation.

The CNDDB reports 27 occurrences of this species in the 16 quadrangles reviewed, four of which include portions of the Project Study Area. This species was identified during the 2014 botanical surveys in the City of Marina and Fort Ord Dunes State Park (Product Water Conveyance: Coastal alignment option), Armstrong Ranch (Product Water Conveyance: RUWAP alignment option), and Injection Well Facilities site. Please refer to **Table 4.5-3** and **Attachment 6 of Appendix H** for the area occupied by Monterey spineflower within the Project Study Area by Proposed Project component.

Eastwood's Goldenbush

Eastwood's goldenbush is a CNPS Rank 1B and Fort Ord HMP species. This evergreen shrub in the Asteraceae family blooms from July to October. Eastwood's goldenbush is associated with openings in maritime chaparral, coastal scrub, closed cone coniferous forest, and coastal dune habitats on sandy soils at elevations between 30-275 meters.

The CNDDB reports 17 occurrences of this species in the 16 quadrangles reviewed, five of which include portions of the Project Study Area. This species was identified during the 2014 botanical surveys at the Injection Well Facilities site and near CSUMB (Product Water Conveyance: RUWAP alignment option). Please refer to **Table 4.5-3** and **Attachment 6 of Appendix H** for the area occupied by Eastwood's goldenbush within the Project Study Area at the Injection Well Facilities site and Product Water Conveyance: RUWAP alignment option.

Coast Wallflower

Coast wallflower is a CNPS Rank 1B and Fort Ord HMP species. This perennial herb in the Brassicaceae family blooms from February to June. Coast wallflower is associated with sandy openings in maritime chaparral, coastal dune, and coastal scrub habitats, within a range of 0-60 meters in elevation.

The CNDDB reports 16 occurrences of this species in the 16 quadrangles reviewed, three of which include portions of the Project Study Area. This species was identified during the 2014 botanical surveys near the Naval Postgraduate School (CalAm Distribution System: Monterey Pipeline). Please refer to **Table 4.5-3** and **Attachment 6 of Appendix H** for the area occupied by coast wallflower within the Project Study Area by Proposed Project component.

Kellogg's Horkelia

Kellogg's horkelia is a CNPS Rank 1B species. It is a perennial herb in the Rosaceae family and blooms April through June. Kellogg's horkelia is typically associated with openings in closed cone coniferous forest, maritime chaparral, and coastal scrub in sandy or gravelly soils on relic dunes, within a range of 10-200 meters in elevation.

The CNDDB reports 18 occurrences of Kellogg's horkelia in the 16 quadrangles reviewed, three of which include portions of the Project Study Area. This species was identified during the 2014 botanical surveys in the City of Marina (Product Water Conveyance: Coastal alignment option), Armstrong Ranch (Product Water Conveyance: RUWAP alignment option), and at the Injection Well Facilities site. Please refer to **Table 4.5-3** and **Attachment 6 of Appendix H** for the area occupied by Kellogg's horkelia within the Project Study Area by Proposed Project component.

Special-Status Terrestrial Wildlife Species

Special-Status Bat Species

Special-status bat species that have the potential to occur in the vicinity of non-native grassland, coast live oak woodland, central coastal scrub, and central maritime chaparral habitats as either maternity, migratory, or foraging roosts include the pallid bat and hoary bat. These species are discussed in more detail below.

Pallid Bat

The pallid bat (*Antrozous pallidus*) is a CDFW species of special concern, and is a year round resident in California. This species of bat occurs in a wide variety of habitats including grasslands, shrublands, arid desert areas, oak savanna, coastal forested areas, and coniferous

forests of the mountain regions of California and forests ranging from sea level up through mixed conifer forests. Pallid bats are most common in open, dry habitats with rocky areas for roosting. Day roosts of this species include caves, crevices, mines, and occasionally hollow trees and buildings. This species seems to prefer rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Pallid bats make use of similar structures for night roosting and will use more open sites such as eaves, awnings, and open areas under bridges for feeding roosts. Pallid bats feed on large insects (20 to 70 mm in length). Foraging takes place over open ground, at heights generally not greater than 7.5 feet, although prey is most often caught on the ground. Jerusalem crickets, scorpions and beetles make up most of the diet of pallid bats in Central California. Copulation occurs in the fall, October through December. Females store the sperm and ovulation occurs in the following spring. Parturition timing, which is determined by local climate and embryonic development, usually takes about 9 weeks with birth occurring in May or June. Twins are the norm in northern California but in other areas they are known to have triplets. Maternity colonies range from 20 to 200 individual adult bats. Males roost in much smaller groupings (Hermanson and O'Shea, 1983).

The CNDDB reports two occurrences of pallid bat within the 16 quadrangles reviewed, located approximately 13 miles from the Project Study Area. The pallid bat may roost in trees within the Project Study Area, most likely coast live oak trees and riparian forest, and may forage over non-native grasslands, central coastal scrub, and central maritime chaparral habitats. Therefore, it may occur at the Salinas Treatment Facility site, Blanco Drain site, Product Water Conveyance: RUWAP and Coastal alignment options, Injection Well Facilities site, CalAm Distribution System: Monterey Pipeline, and the three Affected Reaches. There is a moderate potential for the pallid bat to forage and roost within these habitat types. Please refer to **Table 4.5-4** for a list of potential to occurrences of the pallid bat within the Project Study Area by Proposed Project component.

Hoary Bat

The hoary bat (*Lasiurus cinereus*) is included on the CDFW's CNDDB "Special Animals" list. They may be found at any location in California, although distribution may be patchy in southeastern deserts. This common, solitary species winters along the coast and in southern California, breeding inland and north during the winter range. There is evidence that the sexes separate during the warm months, females being more abundant in the northeastern U.S. and males in the west. Hoary bats generally roost in dense foliage of medium to large trees, preferring sites that are hidden from above with few branches below and have ground cover of low reflectivity. It prefers open habitats or habitat mosaics with access to trees for cover and open areas or edge for feeding. Numerous studies have shown that hoary bats feed primarily on moths, and various flying insects are taken. These nocturnal animals emerge late in the evening, with peak activity usually occurring three to five hours after sunset. Copulation occurs in autumn during migration or on the wintering grounds. Mating is followed by delayed fertilization. The young are born from mid-May through early July, most often in litters of two, but one to four may be born. Based on the distribution of female hoary bats during this time, it is unlikely that birth and rearing occur in California (Cryan, 2003).

The CNDDB reports three occurrences of hoary bat within the 16 quadrangles reviewed, one of which includes portions of the Project Study Area. The hoary bat may roost within the Project Study Area, most likely coast live oak trees and riparian forest, and may forage over non-native grasslands, central coastal scrub, and central maritime chaparral habitats. Therefore, it may occur at the Salinas Pump Station site, Salinas Treatment Facility site, Blanco Drain site, Product Water Conveyance: RUWAP and Coastal alignment options, Product Water Conveyance: Booster Pump Station RUWAP and Coastal alignment options, Injection Well

Facilities site, CalAm Distribution System: Monterey Pipeline, and the three Affected Reaches. However, while this species may use suitable roosting and foraging habitat within the Project Study Area as winter grounds, the hoary bat is unlikely to occur during the summer months and it is unlikely that birth and rearing occur within the Project Study Area (Cryan, 2003). Therefore, there is a high potential for hoary bat to forage and roost within these habitats, but maternity roosts are unlikely to occur. Please refer to **Table 4.5-4** for a list of potential to occurrences of the hoary bat within the Project Study Area by Proposed Project component.

Monterey Dusky-Footed Woodrat

The Monterey dusky-footed woodrat is a CDFW species of special concern. This is a subspecies of the dusky-footed woodrat *(Neotoma macrotis)*, which is common to oak woodlands throughout California. Dusky-footed woodrats are frequently found in forest habitats with moderate canopy cover and a moderate to dense understory, including riparian forests; however, they may also be found in chaparral communities. Relatively large nests are constructed of grass, leaves, sticks, and feathers and are built in protected spots, such as rocky outcrops or dense brambles of blackberry and/or poison oak. Typical food sources for this species include leaves, flowers, nuts, berries, and truffles. Dusky-footed woodrats may be a significant food source for small- to medium-sized predators. Populations of this species may be limited by the availability of nest material. Within suitable habitat, nests are often found in close proximity to each other.

The CNDDB reports no occurrence of Monterey dusky-footed woodrat within the 16 quadrangles reviewed. However, this species is known to occur throughout Monterey County. Woodrat nests were observed within the Injection Well Facilities site. Although no nests were observed, suitable habitat (i.e., coast live oak woodland, central maritime chaparral, central coastal scrub, and riparian habitats) occurs within the Salinas Treatment Facility site, Blanco Drain Diversion site, along the Product Water Conveyance: RUWAP and Coastal alignment options, Injection Well Facilities site, CalAm Distribution System: Monterey Pipeline, and the three Affected Reaches; therefore, this species has a high potential to occur at these locations. The riparian habitat at Roberts Lake (Monterey Pipeline) and Locke Paddon Lake (Product Water Conveyance: Coastal alignment option) is likely not dense enough to provide woodrat habitat and the species is unlikely to occur in these areas. Please refer to **Table 4.5-4** for a list of potential to occurrences of the Monterey dusky-footed woodrat within the Project Study Area by Proposed Project component.

Salinas Harvest Mouse

The Salinas harvest mouse is included on the CDFW's CNDDB "Special Animals" list. This subspecies of the western harvest mouse is known only to occur in the Monterey Bay region in fresh and brackish water wetlands, and probably in the adjacent uplands around the mouth of the Salinas River. Nests of woven dried vegetation are constructed in thick grass at the base of shrubs or amidst debris, litter, or slash[7]. The Salinas harvest mouse is nocturnal and active year round. Breeding occurs year-round in lower elevations and in late spring to early fall at higher elevations. Litter sizes average from 2-4 young and females can have up to 14 litters in a year.

The CNDDB reports seven occurrences of Salinas harvest mouse with the 16 quadrangles reviewed, three of which include portions of the Project Study Area. Suitable habitat for this species within the Project Study Area is present at the Salinas Treatment Facility site, Blanco Drain Diversion site, Lake El Estero, Locke Paddon Lake (Product Water Conveyance: Coastal

[7] Slash is vegetation material that has been cut down.

alignment option) (included in CNDDB occurrence), Roberts Lake (adjacent to CNDDB occurrence) (CalAm Distribution System: Monterey Pipeline), and the three Affected Reaches. The Salinas harvest mouse has a moderate potential to occur within these areas. Please refer to **Table 4.5-4** for a list of potential occurrences of the Salinas harvest mouse within the Project Study Area by Proposed Project component.

Monterey Ornate Shrew

The Monterey ornate shrew, also known as the Salinas ornate shrew, is a CDFW species of special concern and Fort Ord HMP species. In general, this shrew is common in the southern two-thirds of California west of the Sierra Nevada, from Mendocino to Butte counties, south to the Mexican border. It occupies a variety of mostly moist or riparian woodland habitats and also occurs within chaparral, grassland, and emergent wetland habitats where there is thick duff or downed logs. The breeding season is long; while most pregnancies occur in March and April, they may occur anytime from February through October. The litter size is about six and females may have more than one litter per year. Most individuals do not live to breed a second year. Foraging occurs under logs, rocks, and leaf litter, and prey items are mostly insects and some other invertebrates.

The CNDDB does not report any occurrences of the Monterey ornate shrew within the 16 quadrangles reviewed. As with most shrews, little is known about their ecology since they are hard to locate and do not survive well in traps due to very high metabolic rates. However, recent field surveys on the UC Fort Ord Natural Reserve found that habitats within the Project Study Area (e.g., non-native grassland, coast live oak woodland, central coastal scrub, central maritime chaparral, and riparian) are likely considered suitable habitat for the shrew. Therefore, suitable habitat is present within the Project Study Area along the Salinas River within the Salinas Treatment Facility and the Blanco Drain Diversion sites, Product Water Conveyance: RUWAP and Coastal alignment options, Injection Well Facilities site, CalAm Distribution System: Monterey Pipeline, and the three Affected Reaches. Therefore, the Monterey ornate shrew has a moderate potential to occur within suitable habitat within these portions of the Project Study Area. Please refer to **Table 4.5-4** for a list of potential occurrences of the Monterey ornate shrew within the Project Study Area by Proposed Project component.

American Badger

The American badger is a CDFW species of special concern. Badgers occupy a diversity of habitats within California. The principal requirements seem to be sufficient food, friable soils, and relatively open, uncultivated grounds. Grasslands, savannas, and mountain meadows near timberline are preferred. Badgers feed primarily on burrowing rodents, such as gophers, squirrels, mice, and kangaroo rats, as well as some insects and reptiles. Badgers also break open bee hives to eat both the brood and honey. They are active all year long and are nocturnal and diurnal. Mating occurs in summer and early fall and two to five young are born in burrows that are dug in relatively dry, often sandy soil, usually with sparse over story cover.

The CNDDB reports 12 occurrences of American badger within the 16 quadrangles reviewed, one of which includes a portion of the Project Study Area. However, this is a historic occurrence and the area has since been developed. Suitable habitat for this species within the Project Study Area is present within the non-native grassland habitat within the Product Water Conveyance: RUWAP and Coastal alignment options. As a result, the American badger has a high potential to occur within suitable habitat within these portions of the Project Study Area. Please refer to **Table 4.5-4** for a list of potential occurrences of the American badger within the Project Study Area by Proposed Project component.

Tricolored Blackbird

The tricolored blackbird is a CDFW species of special concern. This species is common locally and in coastal districts from Sonoma County south. These birds are summer residents in northeastern California, occurring regularly only at Tule Lake, but found as far south as Honey Lake in some years. In winter, this species becomes more widespread along the Central Coast and San Francisco Bay area (Grinnell and Miller, 1944). Tricolored blackbirds breed near fresh water, preferably in emergent wetlands with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs, which also serve as their preferred nesting habitat. Nests are built of mud and plant materials, and this species is highly colonial; the minimum nesting colony size is about 50 pairs (Grinnell and Miller, 1944). Drinking water is probably required, at least when seeds and grains are the major foods.

The CNDDB reports 10 occurrences of tricolored blackbird within the 16 quadrangles reviewed, the nearest of which is located at Locke Paddon Lake, immediately adjacent to the Project Study Area along the Product Water Conveyance: Coastal alignment option. Suitable habitat is also present at the Salinas Treatment Facility site, Blanco Drain Diversion site, Lake El Estero, and the three Affected Reaches. These areas are the only appropriate habitat for this species in the immediate vicinity of the Project Study Area and the species has a high potential to occur in these areas. Please refer to **Table 4.5-4** for a list of potential occurrences of the tricolored blackbird within the Project Study Area by Proposed Project component.

Western Burrowing Owl

Western burrowing owls are a CDFW species of special concern. Burrowing owls are a year-round resident of open, dry grassland and desert habitats, and grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. In general, burrowing owls frequent open grasslands and shrublands with perches and burrows. Burrowing owls use rodent burrows (often California ground squirrel) for roosting and nesting cover. These burrows are lined with excrement, pellets, debris, grass, and feathers (occasionally are unlined). Pipes, culverts, and nest boxes may be substituted for burrows in areas where burrows are not available. Breeding occurs from March through August, with the peak occurring in April and May. This species lives in large groups or colonies. Burrowing owls eat mostly insects, but small mammals, reptiles, birds, and carrion are also taken. This species usually hunts from a perch and hovers, hawks, dives, and hops after prey on the ground. Conversion of grassland to agriculture, poisoning of ground squirrels, and other forms of habitat management have led to the reduction in their numbers in recent decades.

The CNDDB reports 11 occurrences of western burrowing owl within the 16 quadrangles reviewed, three of which include portions of the Project Study Area. Suitable habitat for this species is present within the non-native grassland habitat along the Product Water Conveyance: RUWAP and Coastal alignment options. Additionally, this species may be present within the coastal dune scrub areas within the CalAm Distribution System: Monterey Pipeline, based on CNDDB observations within the area and despite the lack of typical habitat for the species. Therefore, the western burrowing owl has a high potential to occur within these Proposed Project components. Please refer to **Table 4.5-4** for a list of potential occurrences of the Western burrowing owl within the Project Study Area by Proposed Project component.

California Horned Lark

California horned lark is included on the CDFW's CNDDB "Special Animals" list. California horned larks are a common to abundant resident in a variety of open habitats and are frequently found in grasslands with low, sparse vegetation. This species builds a grass-lined cup nest in a

depression on the ground, generally in the open. Breeding occurs between March and July, with peak activity occurring in May. California horned larks often form large flocks which forage and roost after breeding. This species eats mainly insects, snails, and spiders during the breeding season, and adds grass and forb seeds (as well as other plant material) to their diet seasonally.

The CNDDB reports three occurrences of California horned lark within the 16 quadrangles reviewed, one of which includes the portion of the Project Study Area near the Armstrong Ranch (Product Water Conveyance: RUWAP and Coastal alignment options). Suitable habitat for this species is present within the non-native grassland habitat at these components and, therefore, the California horned lark has a high potential to occur. Please refer to **Table 4.5-4** for a list of potential occurrences of the California horned lark within the Project Study Area by Proposed Project component.

White-tailed Kite

The white-tailed kite is a CDFW Fully Protected species. This raptor species is a fairly common to uncommon, year-long resident in coastal and valley lowlands. This species generally utilizes herbaceous lowlands with variable tree growth and an associated high population density of voles. Nests are made of loosely piled sticks and twigs and lined with grass, straw, or rootlets. Nests are generally placed near the top of a dense oak, willow, or other tree stands (usually 6-20 meters [20-100 feet] above ground), and are often located near an open foraging area. Breeding occurs from February to October with peak activity occurring from May to August. This species preys mainly on voles and other small mammals, but also takes birds, insects, reptiles, and amphibians. Foraging occurs in undisturbed open grasslands, meadows, farmlands, and emergent wetlands.

The CNDDB reports two occurrences of white-tailed kite within the 16 quadrangles reviewed, the nearest of which is located approximately 4.6 miles from the Project Study Area. Suitable nesting habitat for this species is present within the trees and shrubs adjacent to the non-native grasslands along the Product Water Conveyance: RUWAP and Coastal alignment options. A white-tailed kite was observed during surveys of the non-native grassland within the proposed Product Water Conveyance: RUWAP alignment option. Therefore, white-tailed kite has a high potential to occur within suitable habitat within these Proposed Project components. Please refer to **Table 4.5-4** for a list of potential occurrences of the White-tailed kite within the Project Study Area by Proposed Project component.

California Tiger Salamander (CTS)

The CTS was listed as a federally threatened species on August 4, 2004 (69 FR 47211-47248). Critical Habitat was designated for CTS on August 23, 2005 (70 FR 49379-49458), and went into effect on September 22, 2005. Additionally, CTS is a state threatened species and HMP species.

The CTS is a large, stocky salamander most commonly found in annual grassland habitat, but also occurring in the grassy understory of valley-foothill hardwood and chaparral habitats (USFWS, 2004), and uncommonly along stream courses in valley-foothill riparian habitats. Adults spend most of their lives underground, typically in burrows of ground squirrels and other animals (USFWS, 2004). The CTS has been eliminated from an estimated 55 percent of its documented historic breeding sites. Currently, about 150 known populations of California tiger salamanders remain. The CTS persists in disjoint remnant vernal pool complexes in Sonoma County and Santa Barbara County, in vernal pool complexes and isolated stockponds scattered along a narrow strip of rangeland on the fringes of the Central Valley from southern Colusa

County south to northern Kern County, and in sag ponds and human-maintained stockponds in the Coast Ranges from the San Francisco Bay Area south to the Temblor Range.

Adults spend most of the year over-summering in subterranean refugia, especially burrows of California ground squirrels and occasionally man-made structures (Stebbins, 2003; Stebbins and McGinnis, 2012). Sub-adults may develop to sexual maturity (up to five years) in subterranean refugia before surfacing to disperse to a breeding location (Trenham, et al., 2000). During breeding migrations, individuals are sometimes found under surface objects such as rocks and logs. Above-ground migratory and breeding activity may occur under suitable environmental conditions from mid-October through May. Adults may travel long distances between upland and breeding sites; adults have been found more than two kilometers (1.24 miles) from breeding sites (USFWS, 2004). Breeding occurs from November to February, following relatively warm rains (Stebbins, 2003). The CTS breeds and lays eggs primarily in vernal pools and other temporary rainwater ponds. Permanent human-made ponds are sometimes utilized if predatory fishes are absent; streams are rarely used for reproduction. Individual females may lay more than 1,000 eggs. Eggs are laid singly or in clumps on both submerged and emergent vegetation and on submerged debris in shallow water (Stebbins and McGinnis, 2012; Jennings and Hayes, 1994). Males typically spend 6-8 weeks at breeding ponds, while females typically spend only 1-2 weeks (Loredo, et al., 1996). In years of below average rainfall, or when rains occur late in the season, females may forego breeding (Trehnam, et al., 2000). Eggs hatch within 10-14 days (USFWS, 2004) and aquatic larvae seek cover in turbid water, clumps of vegetation, and other submerged debris. A minimum of 10 weeks is required to complete development through metamorphosis (Jennings and Hayes, 1994), although the larval stage may last up to six months and some larvae in Contra Costa and Alameda Counties may remain in their breeding sites over the summer (USFWS, 2004).

The CNDDB reports 63 occurrences of CTS within the 16 quadrangles reviewed. The nearest occurrence is 0.18 miles from the Reclamation Ditch Diversion site; however, this is a historic occurrence from 1952 and the area has since been developed. The nearest modern occurrences are several known breeding locations within the former Fort Ord. However, none of the Proposed Project components are located within 2 km of a known breeding location (**Figure 4.5-1, CTS Occurrences within the Vicinity of the Project Study Area**). There was a potential breeding site located within Armstrong Ranch; however, it was determined through genetic testing that the tiger salamander population was non-native (USFWS, 2007), and the site has since been graded and is under active agricultural use. No other portions of the Project Study Area lie within 2 km of a potential or known breeding location and no potential breeding habitat is present within the Project Study Area. Therefore, no impacts to this species would occur as a result of the Proposed Project. Please refer to **Table 4.5-4** for a list of potential occurrences of CTS within the Project Study Area by Proposed Project component.

Western Pond Turtle

The western pond turtle is a CDFW species of special concern. Western pond turtles are uncommon to common in permanent or nearly permanent aquatic resources in a wide variety of habitats throughout California, west of the Sierra-Cascade crest and are absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Elevation range extends from near sea level to 1,430 meters (4,690 feet). Western pond turtles require basking sites such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks. The home range of western pond turtles is typically quite restricted; however, ongoing research indicates that in many areas, turtles may leave the watercourse in late fall and move into upland habitats where they burrow into duff and/or soil and overwinter (Holland, 1994). However, western pond turtles remain active year-round and may move several times during the course of

overwintering. The time spent in the terrestrial habitat appears highly variable; in Southern California, western pond turtles may remain in these sites for only a month or two. In pond and lake habitats, however, some turtles remain in the pond during the winter (Holland, 1994). Additionally, during the spring or early summer, females move overland for up to 325 feet (100 meters) to find suitable sites for egg-laying. Nests are typically excavated in compact, dry soils in areas characterized by sparse vegetation, usually short grasses or forbs (Holland, 1994). Three to 11 eggs are laid from March to August depending on local conditions (Ernst et al., 1994). The western pond turtle is not known to be territorial, but aggressive encounters, including gesturing and physical combat (Bury and Wolfheim, 1973), are common and may function to maintain spacing on basking sites and to settle disputes over preferred spots. This species is considered omnivorous and food sources include aquatic plant material, beetles, and a wide variety of aquatic invertebrates. Fishes, frogs, and carrion have also been reported among their food (Stebbins and McGinnis, 2012).

The CNDDB reports 27 occurrences of western pond turtle within the 16 quadrangles reviewed, the nearest of which is located approximately 100 feet from the Project Study Area near Locke Paddon Lake (Product Water Conveyance: Coastal alignment option) within the City of Marina. Suitable habitat for this species is present within the Project Study Area along the Salinas River at the Salinas Treatment Facility and Blanco Drain Diversion sites, Lake El Estero, Product Water Conveyance: Coastal alignment option (Locke Paddon Lake), Roberts Lake (CalAm Distribution System: Monterey Pipeline), and the three Affected Reaches. Therefore, western pond turtle has a high potential to occur within suitable habitat within these areas of the Project Study Area. Please refer to **Table 4.5-4** for a list of potential to occur for the western pond turtle within the Project Study Area by Proposed Project component.

California Legless Lizard

The CDFW has recognized two subspecies of the California legless lizard as species of special concern, the black legless lizard (*Anniella pulchra* ssp. *nigra*) and silvery legless lizard (*A. p.* ssp. *pulchra*). (The black legless lizard is listed as a Fort Ord HMP species, and the silvery legless lizard is not.) These subspecies are based primarily on phenotypic differences (black legless lizards being much darker, having fewer scales on the back, and a relatively shorter tail) and very limited genetic work. Further, the range of the black legless lizard has historically been classified as "restricted to coastal and interior dune sand other areas of sandy soils in the vicinity of Monterey Bay and the Monterey Peninsula" (USFWS, 1998), while the range of silvery legless lizard has been classified as widespread throughout central California (Parham and Papenfuss, 2008). However, recent genetic studies have revealed five lineages of this species which correspond with different geographic areas of California (Parham and Papenfuss, 2008). These studies do not, however, identify the legless lizards occurring on the coast of Monterey Bay (i.e. the currently designated black-legless lizard) as a separate lineage. As such, for the purposes of this report, the California legless lizard is discussed on a species level and not at the CDFW-recognized subspecies level. Additionally, both subspecies and all lineages are considered CDFW species of special concern, as well as Fort Ord HMP species.

The California legless lizard is a fossorial (burrowing) species that typically inhabits sandy or loose (friable) soils. Habitats known to support this species include (but are not limited to) coastal dunes, valley and foothill grasslands, chaparral, and coastal scrub at elevations from near sea level to approximately 1,800 meters (6000 feet). The California legless lizard forages on invertebrates beneath the leaf litter or duff layer at the base of bushes and trees or under wood, rocks, and slash in appropriate habitats. Little is known about the specific habitat requirements for courtship and breeding; however, the mating season for this species is believed to begin late spring or early summer, with one to four live young born between

September and November. The diet of this species likely overlaps to some extent with that of juvenile alligator lizards and perhaps some other salamanders. California legless lizards eat insect larvae, small adult insects, and spiders. This species may be preyed upon by alligator lizards, snakes, birds, and small mammals.

The CNDDB reports 39 occurrences of California legless lizard within the 16 quadrangles reviewed. The CNDDB does not present specific location data for most of these occurrences. However, one specific occurrence mapped within the Fort Ord Natural Reserve near the City of Marina includes a portion of the Project Study Area (Product Water Conveyance: RUWAP alignment option), and occurrences are documented in six of the 16 quadrangles reviewed, including the Moss Landing, Marina, Salinas, Monterey, and Seaside quadrangles. Suitable habitat for California legless lizard is present throughout the Project Study Area where appropriate soils and cover conditions occur. Central coastal scrub, central dune scrub, and central maritime chaparral habitats provide the most suitable habitat for this species; however, the species does occur in non-native grasslands and oak woodlands where suitable soils and cover exist. These habitats and species requirements are present within the Project Study Areas of the Product Water Conveyance: RUWAP and Coastal alignment options, Injection Well Facilities site, CalAm Distribution System: Monterey Pipeline, Reclamation Ditch Affected Reach, and Old Salinas River Channel Affected Reach. Therefore, the California legless lizard has a high potential to occur within suitable habitat at these Proposed Project components. Please refer to **Table 4.5-4** for a list of potential occurrences of the California legless lizard within the Project Study Area by Proposed Project component.

Coast Horned Lizard

The coast horned lizard is a CDFW species of special concern. Horned lizards occur in valley-foothill hardwood, conifer, and riparian habitats, as well as in pine-cypress, juniper, chaparral, and annual grass habitats. This species generally inhabits open country, especially sandy areas, washes, flood plains, and wind-blown deposits in a wide variety of habitats. Coast horned lizards rely on camouflage for protection and will often lie motionless when approached. Horned lizards often bask in the early morning on the ground or on elevated objects such as low boulders or rocks. Predators and extreme heat are avoided by burrowing into loose soil. Periods of inactivity and winter hibernation are spent burrowed into the soil or under surface objects. Little is known about the habitat requirements of this species for breeding and egg-laying. Prey species include ants, beetles, wasps, grasshoppers, flies, and caterpillars.

The CNDDB reports six occurrences of the coast horned lizard within the 16 quadrangles reviewed, two of which include the portions of the Project Study Area near the Armstrong Ranch (Product Water Conveyance: RUWAP alignment option). This species is known to occur throughout the former Fort Ord and Armstrong Ranch. Suitable habitat (e.g., non-native grassland, central coastal dune scrub, central coastal scrub, and maritime chaparral) for this species is present within the Project Study Area of the Product Water Conveyance: RUWAP and Coastal alignment options, Injection Well Facilities site, CalAm Distribution System: Monterey Pipeline, Reclamation Ditch Affected Reach, and Old Salinas River Channel Affected Reach. Therefore, coast horned lizard has a high potential to occur within suitable habitat at these Proposed Project components. Please refer to **Table 4.5-4** for a list of potential occurrences of the coast horned lizard within the Project Study Area by Proposed Project component.

California Red-Legged Frog (CRLF)

The CRLF was listed as a federally threatened species on June 24, 1996 (61 FR 25813-25833) and is also a CDFW species of special concern. Critical habitat was designated for CRLF on

April 13, 2006 (71 FR 19244-19346) and revised on March 17, 2010 (75 FR 12816-12959). The revised critical habitat went into effect on April 16, 2010.

The CRLF is the largest native frog in California and was historically widely distributed in the central and southern portions of the state (Jennings and Hayes, 1994). Adults generally inhabit aquatic habitats with riparian vegetation, overhanging banks, or plunge pools for cover, especially during the breeding season (Jennings and Hayes, 1988). They may take refuge in small mammal burrows, leaf litter, or other moist areas during periods of inactivity or to avoid desiccation (Rathbun, et al., 1993; Jennings and Hayes, 1994). Radio telemetry data indicate that adults engage in straight-line breeding season movements irrespective of riparian corridors or topography and they may move up to two miles between non-breeding and breeding sites (Bulger, et al., 2003). During the non-breeding season, a wider variety of aquatic habitats are used including small pools in coastal streams, springs, water traps, and other ephemeral water bodies (USFWS, 1996). CRLF may also move up to 300 feet from aquatic habitats into surrounding uplands where individuals may spend days or weeks, especially following rains (Bulger et al., 2003).

This species requires still or slow-moving water during the breeding season where it can deposit large egg masses, which are most often attached to submergent or emergent vegetation. Breeding typically occurs between December and April depending on annual environmental conditions and locality. Eggs require 6 to 12 days to hatch and metamorphosis generally occurs after 3.5 to 7 months, although larvae are also capable of over-wintering. Following metamorphosis, generally between July and September, juveniles are 25-35 mm in size. Juvenile CRLF appear to have different habitat needs than adults. Jennings and Hayes (1988) recorded juvenile frogs mostly from sites with shallow water and limited shoreline or emergent vegetation. Additionally, it was important that there be small one-meter breaks in the vegetation or clearings in the dense riparian cover to allow juveniles to sun themselves and forage, but to also have close escape cover from predators. Jennings and Hayes also noted that tadpoles have different habitat needs and, that in addition to vegetation cover, tadpoles use mud. It is speculated that CRLF larvae are algae grazers, however, foraging larval ecology remains unknown (Jennings, et al., 1993).

It has been shown that occurrences of CRLF are negatively correlated with presence of non-native bullfrogs (Moyle, 1973; Jennings and Hayes, 1986 and 1988), although both species are able to persist at certain locations, particularly in the coastal zone. It is estimated that CRLF has disappeared from approximately 75% of its former range and has been nearly extirpated from the Sierra Nevada, Central Valley, and much of southern California (USFWS, 1996).

The CNDDB reports 106 occurrences of CRLF within the 16 quadrangles reviewed. The CNDDB does not present specific location data for some of these occurrences. However, the nearest specific occurrence is a breeding location directly adjacent to the Blanco Drain Diversion site along the Salinas River (**Figure 4.5-3, CTS Occurrences within the Vicinity of the Project Study Area**). This occurrence is the only CNDDB, specific CRLF occurrence within 1.6 kilometers of the Project Study Area, the dispersal distance of CRLF from aquatic sites (Bulger, 1998). CRLF is known to occur within suitable habitat along the Salinas River at the Salinas Treatment Facility site; however, suitable upland or breeding habitat does not occur within the remaining Project Study Area. Since the CRLF is known to occur in the Salinas River, this species is assumed present within the riparian habitat at the Salinas Treatment Facility and Blanco Drain Diversion sites. Please refer to **Table 4.5-4** for a list of potential occurrences of the CRLF within the Project Study Area by Proposed Project component.

Coast Range Newt

The Coast Range newt, a subspecies of the California newt (*Taricha torosa*), is a CDFW species of special concern within all portions of their range south of the Salinas River in Monterey County. This species was historically distributed in coastal drainages from the vicinity of Sherwoods (central Mendocino County) in the North Coast Ranges, south to Boulder Creek, in San Diego County (CDFW, 2014). Populations in southern California appear to be highly fragmented, even historically. This species has been depleted by large-scale historical commercial exploitation coupled with the loss and degradation of stream habitats, particularly in Los Angeles, Orange, Riverside, and San Diego Counties. The known elevation range of this species extends from near sea-level to 1830 meters (Jennings and Hayes 1994). In central California, breeding appears to occur in two waves, the first in January or February and the second in March or April (Miller and Robbins, 1954), although Coast Range newts may enter ponds as early as December. Larvae take approximately three to six months to reach metamorphosis and subsist largely on aquatic invertebrates. Adult Coast Range newts eat a wide variety of aquatic and terrestrial invertebrates (earthworms, insects, snails, beetles, stoneflies, etc.) as well as egg masses, larvae, and carrion.

Breeding and egg-laying occur in intermittent streams, rivers, permanent and semi-permanent ponds, lakes and large reservoirs. Eggs are laid in small clusters on the submerged portion of emergent vegetation, on submerged vegetation, and on the underside of rocks off the bottom. Coast Range newt eggs contain toxic glands which repel many predators. However, Coast Range newt larvae may represent a significant seasonal food for newborn individuals of certain snakes, including California red-sided garter snake (*Thamnophis sirtalis*) and the endangered San Francisco garter snake (*T. s. tetraenia*) (CDFW, 2014).

CNDDB reports one occurrence within the 16 quadrangles reviewed, the nearest of which is located approximately 11 miles from the Source Water Diversion and Storage Site on the Tembladero Slough. This species is also known to occur throughout the Carmel Valley, approximately seven miles south of the Project Study Area. Marginal habitat for this species is present within the Project Study Area near the Salinas Treatment Facility site, Blanco Drain Diversion site, Lake El Estero, Locke Paddon Lake (Product Water Conveyance: Coastal alignment option), Roberts Lake (CalAm Distribution System: Monterey Pipeline), and within the riparian habitat at the three Affected Reaches. Therefore, the Coast Range newt has a moderate potential to occur within suitable habitat within these areas of the Project Study Area. Please refer to **Table 4.5-4** for a list of potential occurrences of the Coast Range newt within the Project Study Area by Proposed Project component.

Two-Striped Garter Snake

The two-striped garter snake is a CDFW species of special concern. The two-striped garter snake is distributed throughout the South Coast Range and the Transverse Range, from the eastern slope of the Diablo Range to the Mexican border. This species is associated with permanent or semi-permanent bodies of water in a variety of habitats from sea level to 8,000 feet. Habitat types include perennial and intermittent streams with rocky riverbeds, large sandy-bottom river beds, natural and artificial ponds (Jennings and Hayes, 1994). Two-striped garter snakes forage primarily for fish and their eggs, amphibians, and amphibian larvae, but small mammals and invertebrates are also taken. Courtship and mating occur in the spring and one to 25 young are born in later summer and fall.

The CNDDB reports one occurrence of two-striped garter snake within the 16 quadrangles reviewed, located approximately eight miles from the Project Study Area. Suitable habitat is present within the Project Study Area within the riparian habitat at the Salinas Treatment Facility

site, Blanco Drain Diversion site, Lake El Estero, Locke Paddon Lake (Product Water Conveyance: Coastal alignment option), Roberts Lake (CalAm Distribution System: Monterey Pipeline), and within the riparian habitat at the three Affected Reaches. Therefore, there is a moderate potential for the two-striped garter snake to occur within suitable habitat within these portions of the Project Study Area. Please refer to **Table 4.5-4** for a list of potential occurrences of the two-striped garter snake within the Project Study Area by Proposed Project component.

Monarch Butterfly

The monarch butterfly is included on the CDFW's CNDDB "Special Animals" list. This species is the only known insect in the world that makes an annual, back-and-forth, long-distance migration. Each fall monarch butterflies fly west and south to the same overwintering sites, and frequently to the same trees, in coastal California conifer and eucalyptus groves and high altitude Mexican conifer forests. In California, the butterflies cluster in these sites from approximately October to February. A dwindling number of groves along the California coast have the characteristics necessary to support overwintering monarch butterflies. Monarch butterflies generally overwinter in stands of eucalyptus or Monterey pine and selected groves are often in a canyon or drainage where butterflies have a source of water. Specific microclimate conditions within the groves are necessary for monarch butterfly use. Overwintering groves generally have more stable temperatures (i.e., less variation between day and night temperatures), less direct sunlight, less wind, and more moisture in the air than groves not used by monarch butterflies. In the spring monarch butterflies depart their wintering grounds, flying north and east throughout North America to search for milkweed plants (*Asclepias* sp.), on which the females lay their eggs. The migrating butterflies die soon after they lay eggs. Monarchs migrating towards overwintering habitat are reliant on "autumnal roosts" and "nectaring bivouacs." Autumnal roosts generally host smaller populations in the fall and early winter and typically support one or more varieties of milkweed, the primary food source of monarch butterflies. These areas serve as important feeding habitats where monarchs replenish their fat reserves before winter sets in. Nectaring bivouacs are areas which may have a consistent flow of monarchs in and out of the site, as butterflies collect nectar and return to their clusters elsewhere.

The CNDDB reports 28 occurrences of monarch butterfly within the 16 quadrangles reviewed, one of which is located within the Project Study Area in the eucalyptus grove across from the Naval Postgraduate School in the City of Monterey (CalAm Distribution System: Monterey Pipeline).[8] This occurrence represents the only suitable monarch habitat within the Project Study Area and the species is unlikely to occur in other areas of the Project Study Area. Therefore, this species has a high potential to occur within the eucalyptus grove within this portion of the Project Study Area. Please refer to **Table 4.5-4** for a list of potential occurrences of the Monarch butterfly within the Project Study Area by Proposed Project component.

Smith's Blue Butterfly

Smith's blue butterfly was listed as a federally endangered species on June 1, 1976 (41 FR 22041 22044). This species historically ranged along the California coast from Monterey Bay south through Big Sur to near Point Gorda, occurring in scattered populations in association with coastal dune, coastal scrub, chaparral, and grassland habitats. The primary limiting factor for Smith's blue butterfly populations is the occurrence of their host plants, dune buckwheat and coast buckwheat, with which they are associated for their entire life span. There is also a

[8] Please refer to Attachment 7 of Appendix H for a map of potential habitat found within the Project Study Area.

potential for Smith's blue butterfly to use naked buckwheat (*E. nudum*) within a range of the obligate host species (pers. comm. Dave Dixon, California State Parks). The presence of the host plant, however, is not always an indication of the occurrence of the butterfly, as the host plant distribution is much more extensive than that of the butterfly.

Individual adult males and females live approximately one week. Adult emergence and seasonal activity is synchronized with the blooming period of the particular buckwheat used at a given site. Dispersal data from capture-recapture studies (Arnold, 1983) indicate that most adults are quite sedentary, with home ranges no more than a few acres. Smith's blue butterfly has only one generation per year. Females lay single eggs into buckwheat flower heads, which hatch in approximately one week. Caterpillars mature over a span of approximately three to four weeks, feeding on petals and seeds of the buckwheat plant. Chrysalis formation then takes place in the buckwheat flower head and the chrysalis eventually falls in to the leaf litter and topsoil beneath the plant where it remains for approximately 47 weeks until the cycle begins again (Dixon, 1999).

The CNDDB reports 36 occurrences of Smith's blue butterfly within the 16 quadrangles reviewed, one of which includes a portion of the Project Study Area. Dune buckwheat and coast buckwheat, the obligate host plants for this species, were identified within the Project Study Area near Fort Ord Dunes State Park (Product Water Conveyance: Coastal alignment option) and Window on the Bay Waterfront Park (CalAm Distribution System: Monterey Pipeline)[9]. In addition, the coastal scrub and coastal dune scrub habitats within the Reclamation Ditch Affected Reach and Old Salinas Channel Affected Reach may support obligate host species. Therefore, Smith's blue butterfly has a high potential to occur within suitable habitat within these portions of the Project Study Area. Please refer to **Table 4.5-4** for a list of potential occurrences of the Smith's blue butterfly within the Project Study Area by Proposed Project component.

Nesting Raptors, Migratory Birds, and Other Protected Avian Species

Raptors and their nests and migratory birds are protected under the California Fish and Game Code and the Migratory Bird Treaty Act (MBTA). While the life histories of these species vary, overlapping nesting and foraging similarities (approximately February through August) allow for their concurrent discussion in this EIR. Most raptors are breeding residents throughout most of the wooded portions of the state. Stands of live oak, riparian deciduous, or other forest habitats, as well as open grasslands, are used most frequently for nesting. Breeding occurs February through August, with peak activity May through July. Prey for these species includes small birds, small mammals, and some reptiles and amphibians. Many raptor species hunt in open woodland and habitat edges. Various species of raptors (such as red-tailed hawk, red-shouldered hawk (*Buteo lineatus)*, great horned owl, Cooper's hawk, American kestrel, and turkey vulture (*Cathartes aura*) have a potential to nest within any of the large trees present within and adjacent to the Project Study Area, which includes several individuals or small clusters of cypress, Monterey pine, coast live oak, willow, and eucalyptus trees.

Additionally, migratory bird species that may be present within the Project Study Area include, but are not limited to, common poorwill (*Phalaenoptilus nuttallii*), western meadowlark (*Sturnella neglecta*), Townsend's warbler (*Setophaga townsendii*), black phoebe (*Sayornis nigricans*), white-crowned sparrow (*Zonotrichia aleucophrys*), California thrasher (*Toxostoma* redvivum), ash-throated fly catcher (*Myiarchus cinerascens*), tree swallow (*Tachycineta bicolor*), and California horned lark. Avian species identified as CDFW species of special concern or Fully

[9] Please refer to Attachment 7 of Appendix H for a map of obligate host plants found within the Project Study Area.

Protected Species (e.g., such as the white-tailed kite, and burrowing owl; see separate species descriptions above) have the potential to occur within suitable habitat, primarily associated with the non-native grassland.

All 16 quadrangles have occurrences of protected avian species documented by the CNDDB. Suitable nesting habitat is present within and adjacent to all Proposed Project component sites, with the exception of the Reclamation Ditch Diversion site and Tembladero Slough Diversion site, which are highly developed and urbanized and lack suitable nesting habitat. Therefore, nesting raptors, migratory birds, and other protected avian species have a high potential to nest within suitable habitat within all Proposed Project components, with the exception of the components identified.

4.5.2.5 *Sensitive Habitats*

Several sensitive habitats were identified within the Project Study Area. **Table 4.5.-5, Sensitive Habitats within the Project Study Area** identifies the acreage of sensitive habitats within the Project Study Area at each of the Proposed Project component sites. Some of these habitats may be considered an Environmental Sensitive Habitat Area (ESHA) by the California Coastal Commission (CCC) or local authority where they occur in the coastal zone. In addition, under Section 30107.5 of the California Coastal Act (CCA), an "environmentally sensitive area" is any area in which plant or animal life or their habitat are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Therefore, the CCC or local authority may designate additional habitat areas within the Project Study Area as ESHA if CCC or local authority determines that it meets this definition.

The only parts of the Project Study Area that are within the Coastal Zone are: 1) portions of the Product Water Conveyance: Coastal alignment option; 2) portions of the CalAm Distribution System: Monterey Pipeline; 3) The Tembladero Slough Diversion site; and 4) the Affected Reaches of the Old Salinas River Channel and Tembladero Slough.[10]

Central Maritime Chaparral

Central maritime chaparral (brittle leaf – wooly leaf manzanita chaparral) is present within the Project Study Area along the Product Water Conveyance: RUWAP alignment option (approximately 2 acres)[11] and Injection Well Facilities Site (approximately 63 acres). This habitat type is considered a sensitive habitat by CDFW.[12]

[10] These components of the Proposed Project fall within the following certified LCPs: North County LCP, City of Marina LCP, Sand City LCP, and City of Seaside LCP. A portion of the Project Study Area of the CalAm Distribution System: Monterey Pipeline falls within the City of Monterey; however, the City of Monterey does not have a certified LCP at this time and permits must be issued by the Coastal Commission.

[11] Habitat and resources associated with the Product Water Conveyance Alignment Options within the Project Study Area from just south of Lightfighter Drive to the Injection Well Facilities is accounted for under the RUWAP Alignment option; however, this portion of the Project Study Area is part of both the RUWAP and Coastal Product Water Conveyance Alignment Options (approximately 1 acre of central maritime chaparral occurs in this portion of the Project Study Area).

[12] This sensitive habitat acreage does not occur within the coastal zone.

Central Dune Scrub

Central dune scrub (silver dune lupine – mock heather scrub) is present within the Project Study Area along the CalAm Distribution System: Monterey Pipeline (approximately 3 acres) and Old Salinas River Channel Affected Reach (0.5 acre). This habitat is considered a sensitive habitat by CDFW and is located within the Coastal Zone.

Riparian Habitat

Riparian habitat (arroyo willow thickets) is present within the Project Study Area along the Coastal alignment option (approximately 0.6 acre), CalAm Distribution System: Monterey Pipeline (approximately 0.6 acre), the Salinas Treatment Facility site (approximately 35 acres), and the Blanco Drain Diversion site (approximately 0.7 acre). Areas of riparian habitat were also identified along the margins of the affected reaches of the Reclamation Ditch (approximately 2.5 acres), Tembladero Slough (approximately 1.8 acres), and the Old Salinas River Channel (approximately 0.02 acres). This habitat type is considered a sensitive habitat by CDFW and is regulated under Sections 1600-1616 of the Fish and Game Code. In addition, riparian habitat is usually associated with wetlands under the jurisdiction of the U.S. Army Corps of Engineers (USACOE). The riparian habitat areas within Project Study Area of the Coastal alignment option (Locke Paddon Lake) and CalAm Distribution System: Monterey Pipeline (Roberts Lake) are located within the Coastal Zone.

Emergent Wetland

Emergent Wetland (California bulrush marsh) habitat is present at Lake El Estero (approximately 0.7 acre), as well as along the affected reaches of Tembladero Slough (approximately 2.5 acres) and Old Salinas River Channel (approximately 2.8 acres). This habitat type is considered a sensitive habitat by CDFW, and may be subject to regulation under Sections 1600-1616 of the Fish and Game Code. In addition, emergent wetland habitat is usually associated with wetlands under the jurisdiction of the USACOE. The emergent wetland areas within Project Study Area of the Old Salinas River Channel affected reach and portions of the Tembladero Slough affected reach are located within the Coastal Zone.

Salt Marsh Wetland

Approximately 13 acres of salt marsh wetland (pickleweed mats) habitat is present along the Old Salinas River Channel affected reach. This habitat is considered a sensitive habitat by the CDFW and may be subject to regulation under Sections 1600-1616 of the Fish and Game Code. In addition, salt marsh wetland habitat is usually associated with wetlands under the jurisdiction of the USACOE. The salt marsh areas within Project Study Area of the Old Salinas River Channel affected reach are located within the Coastal Zone.

Wetlands and Other Waters

Jurisdictional wetlands may be present in riparian, emergent wetland, and salt marsh wetland habitats. Within the Coastal Zone, wetlands under the jurisdiction of the CCC may also occur in ruderal/developed/active agriculture habitat. Areas that meet the criteria of a wetland, as defined by the USACOE, are regulated under the Clean Water Act (CWA). Areas within the Coastal Zone that meet the definition of a wetland, as defined by the CCC, are regulated under the CCA. Other waters of the U.S. and the state are regulated under the CWA and Porter-Cologne Act respectively, and are often associated with aquatic habitat.

A formal wetland delineation was conducted at Locke Paddon Lake (Product Water Conveyance: Coastal alignment option) and Roberts Lake (CalAm Distribution System: Monterey Pipeline) in 2010. In 2014 and 2015, a formal wetland delineation was conducted along the affected reaches and at Proposed Project component sites along the Tembladero Slough, the Reclamation Ditch, and the Blanco Drain Diversion. The wetland delineations were conducted in accordance with the requirements set forth in the USACOE Wetland Manual, USACOE Supplement, and the CCC Wetland Guidance, to determine the extent of potentially jurisdictional wetlands under the CWA and CCA.

Areas within the Project Study Area of nine component sites were identified as potential jurisdictional coastal wetlands, federal wetlands, and/or other waters (including both federal and state jurisdiction): Reclamation Diversion site (0.05 acre of other waters); Tembladero Slough Diversion site (0.01 acre of coastal wetland and 0.2 acre of other waters); Blanco Drain Diversion site (0.3 acre of other waters); Lake El Estero (0.7 acre of federal wetland and 17.3 acres of other waters); Coastal alignment option (0.3 acre of coastal wetland and 0.3 acre federal wetland); Monterey pipeline (0.02 acre of coastal wetland, 0.6 acre federal wetland, and 0.2 acre of other waters); Reclamation Ditch affected reach (12.3 acres of other waters); Tembladero Slough affected reach (1.1 acres of coastal wetland, 2.0 acres federal wetland, and 16.4 acres of other waters); and Old Salinas River Channel affected reach (3.4 acres of coastal wetland, 12.4 acres federal wetland, and 22.5 acres of other waters).

A formal wetland delineation was not conducted within the riparian habitat along the Salinas River downstream of the Salinas Treatment Facility site, or within the Project Study Area associated with the Salinas Treatment Facility as the Proposed Project would not result in direct or indirect impacts to wetlands (if present) in these areas. Additionally, no formal delineation was conducted at Lake El Estero outside of area where permanent impacts could occur, wetlands and waters potentially under the jurisdiction of the USACOE were identified at Lake El Estero through the use of aerial images and personal knowledge of the area.

Monarch Butterfly Habitat

A eucalyptus grove is present within the Project Study Area along the CalAm Distribution System: Monterey Pipeline (approximately 2 acres). This habitat type is not considered a sensitive habitat by the CDFW. However, this area is located within the Coastal Zone and provides habitat for the Monarch butterfly. Therefore, this habitat may be considered ESHA.

Table 4.5-5
Sensitive Habitats within the Project Study Area

Sensitive Habitat (in acres)	Component Name															Total Area by Sensitive Habitat Type (ac)
	Source Water Diversion and Storage Sites						Treatment Facilities at the Regional Treatment Plant	Product Water Conveyance*****		Injection Well Facilities	CalAm Distribution System		Affected Reaches			
	Salinas Pump Station	Salinas Treatment Facility Storage and Recovery**	Reclamation Ditch	Tembladero Slough	Blanco Drain	Lake El Estero**		RUWAP Alignment Option	Coastal Alignment Option		Transfer Pipeline	Monterey Pipeline	Reclamation Ditch	Tembladero Slough	Old Salinas River Channel	
Central Maritime Chaparral	--	--	--	--	--	--	--	1.9 ac	--	62.5 ac	--	--	--	--	--	64.4 ac
Central Dune Scrub	--	--	--	--	--	--	--	--	--	--	--	2.7 ac	--	--	0.5 ac	3.2 ac
Riparian	--	34.7 ac	--	--	0.7 ac	*	--	--	0.6 ac	--	--	0.6 ac	2.5 ac	1.8 ac	0.02 ac	40.9 ac
Emergent Wetland	--	--	--	--	--	0.7 ac	--	--	--	--	--	--	--	2.5 ac	2.8 ac	6.0 ac
Salt Marsh Wetland	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.0 ac	13.0 ac
Potential Coastal Wetlands***	--	N/A	--	0.01 ac	--	--	--	--	0.3 ac	--	--	0.02 ac	--	1.1 ac	3.4 ac	4.8 ac
Potential Federal Wetland****	--	N/A	--	--	--	0.7 ac	--	--	0.3 ac	--	--	0.6 ac	--	2.0 ac	12.4 ac	16.0 ac
Potential Jurisdictional Waters	--	N/A	0.05 ac	0.2 ac	0.3 ac	17.3 ac	--	--	--	--	--	0.2 ac	12.3 ac	16.4 ac	22.5 ac	69.3 ac
Monarch Butterfly Habitat (Potential ESHA)	--	--	--	--	--	--	--	--	--	--	--	2.2 ac	--	--	--	2.2 ac

* While riparian habitat is present adjacent to the Project Study Area at Lake El Estero, it is not within the Project Study Area and, therefore, is not quantified.
** No formal wetland delineation was conducted at the Salinas Treatment Facility or at Lake El Estero outside of the proposed Diversion site where direct, permanent impacts would occur.
*** Potential coastal wetlands are areas that did not qualify as wetlands as defined by the USACOE, but did meet the conditions required to be considered a wetland as defined by the CCC or authorized local authority.
**** Areas that are located in the coastal zone and meet the criteria to be considered wetlands under the USACOE may also fall under the jurisdiction of the CCC or authorized local authority.
***** Habitat and resources associated with the Product Water Conveyance Alignment Options within the Project Study Area from just south of Lightfighter Drive to the Injection Well Facilities is accounted for under the RUWAP Alignment option; however, this portion of the Project Study Area is part of both the RUWAP and Coastal Product Water Conveyance Alignment Options.

Critical Habitat Designations within the Project Study Area

There are no areas of designated critical habitat aside from designated critical habitat for steelhead within the Project Study Area.[13] However, Critical Habitat Unit 3 for Monterey spineflower is located west of and directly adjacent to the Product Water Conveyance: Coastal alignment option within the Fort Ord Dunes State Park.

Wildlife Movement Corridors

Wildlife movement corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or by areas of human disturbance or urban development. Topography and other natural factors in combination with urbanization have fragmented or separated large open-space areas. The fragmentation of natural habitat creates isolated "islands" of vegetation that may not provide sufficient area to accommodate sustainable populations and can adversely impact genetic and species diversity. Movement corridors offset the effects of this fragmentation by allowing animals to move between remaining habitats, which in turn allows depleted populations to be replenished and promotes genetic exchange with separate populations. Within Monterey County, streams and drainages such as Moro Cojo, Tembladero and Alisal Sloughs, and the Carmel and Salinas Rivers serve as primary corridors for wildlife moving through agricultural and/or developed lands.

4.5.3 Regulatory Framework

4.5.3.1 *Federal*

Federal Endangered Species Act (ESA)

Provisions of the ESA of 1973 (16 USC 1532 et seq., as amended) protect federally listed threatened or endangered species and their habitats from unlawful take. Listed species include those for which proposed and final rules have been published in the Federal Register. The ESA is administered by the Service or National Oceanic and Atmospheric Administration Marine Fisheries Service (NOAA Fisheries). In general, NOAA Fisheries is responsible for the protection of ESA-listed marine species and anadromous fish, whereas other listed species are under Service jurisdiction.

Section 9 of ESA prohibits the take of any fish or wildlife species listed under ESA as endangered or threatened. Take, as defined by ESA, is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Harm is defined as "any act that kills or injures the fish or wildlife…including significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." In addition, Section 9 prohibits removing, digging up, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction. Section 9 does not prohibit take of federally listed plants on sites not under federal jurisdiction. If there is the potential for incidental take of a federally listed fish or wildlife species, take of listed species can be authorized through either the Section 7 consultation process for federal actions or a Section 10 incidental take permit process for non-federal actions. Federal agency actions include activities that are on

[13] The Salinas River, Reclamation Ditch, Tembladero Slough, and Old Salinas River Channel upstream of the confluence with Tembladero Slough are designated as critical habitat for the south-central coast steelhead. See **Section 4.4 Biological Resources**: Fisheries for further description of this critical habitat.

federal land, conducted by a federal agency, funded by a federal agency, or authorized by a federal agency (including issuance of federal permits).

Critical Habitat

Critical habitat is a term defined and used in the federal ESA. It is a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery. An area is designated as "critical habitat" after the USFWS publishes a proposed federal regulation in the Federal Register and then public comments are received and considered on the proposal. The final boundaries of the critical habitat area are also published in the Federal Register. Federal agencies are required to consult with the USFWS on actions they carry out, fund, or authorize to ensure that their actions will not destroy or adversely modify critical habitat. In this way, a critical habitat designation protects areas that are necessary for the conservation of the species.

Recovery Plans

The ultimate goal of the federal ESA is the recovery (and subsequent conservation) of endangered and threatened species and the ecosystems on which they depend. A variety of methods and procedures are used to recover listed species, such as protective measures to prevent extinction or further decline, consultation to avoid adverse impacts of federal activities, habitat acquisition and restoration, and other on-the-ground activities for managing and monitoring endangered and threatened species. The collaborative efforts of the USFWS and its many partners (federal, state, and local agencies, tribal governments, conservation organizations, the business community, landowners, and other concerned citizens) are critical to the recovery of listed species.

Two recovery plans have been prepared for listed species known or with the potential to occur within the Project Study Area:

- Smith's Blue Butterfly Recovery Plan, and
- Recovery Plan for Seven Coastal Plants and the Myrtle's Silverspot Butterfly.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 USC 651 Et Seq.) requires all federal agencies to consult with and give strong consideration to the views of the USFWS, NOAA Fisheries, and state wildlife agencies regarding the fish and wildlife impacts of projects that propose to impound, divert, channel, or otherwise alter a body of water.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 prohibits killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the Interior. Most actions that result in taking or in permanent or temporary possession of a protected species constitute violations of the Migratory Bird Treaty Act. The Service is responsible for overseeing compliance with the Migratory Bird Treaty Act and implements Conventions (treaties) between the United States and four countries for the protection of migratory birds – Canada, Mexico, Japan, and Russia. The Service maintains a list of migratory bird species that are protected under the Migratory Bird Treaty Act, which was updated in 2010 to: 1) correct previous mistakes, such as misspellings or removing species no longer known to occur within the United States; 2) add species, as a result of expanding the geographic scope to include Hawaii and U.S. territories

and new evidence of occurrence in the United States or U.S. territories; and 3) update name changes based on new taxonomy (USFWS, 2013).

The Clean Water Act

The USACOE and Environmental Protection Agency (EPA) regulate discharge of dredged and fill material into "Waters of the United States" (waters of the U.S.) under Section 404 of the CWA. Waters of the U.S. are defined broadly as waters susceptible to use in commerce (including waters subject to tides, interstate waters, and interstate wetlands) and other waters (such as interstate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds) (33 CFR 328.3). Potential wetland areas are identified as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils conditions."

Under Section 401 of the CWA, any applicant receiving a Section 404 permit from the USACOE must also obtain a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB). A Section 401 Water Quality Certification is issued when a project is demonstrated to comply with state water quality standards and other aquatic resource protection requirements.

Executive Order 11990 - Protection of Wetlands

Executive Order 11990 - Protection of Wetlands calls for no net loss of wetlands. For the regulatory process, the USACOE and EPA jointly define wetlands as follows: "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Federal agencies are required to implement the following procedures for any federal action that involves wetlands: 1) provide an opportunity for early public involvement; 2) consider alternatives that would avoid wetlands, and it avoidance is not possible, measures to minimize harm to wetlands must be included in the action; 3) prepare a "Wetlands Only Practicable Alternative Finding" for actions that require an Environmental Impact Statement.

Executive Order 13112 - Invasive Species

Executive Order 13112 - Invasive Species requires the prevention of introduction and spread of invasive species. Invasive species are defined as "alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health." Each federal agency whose actions may affect the status of invasive species on a project site shall, to the extent practicable and permitted by law, subject to the availability of appropriations, use relevant programs and authorities to: 1) prevent the introduction of invasive species; 2) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; 3) monitor invasive species populations accurately and reliably; 4) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; 5) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and 6) promote public education on invasive species and the means to address them. A national invasive species management plan was prepared by the National Invasive Species Council and the Invasive Species Advisory Committee (ISAC) that recommends objectives and measures to implement the Executive Order.

National Wild and Scenic Rivers Act

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. Rivers may be designated by Congress or, if certain requirements are met, the Secretary of the Interior. Each river is administered by either a federal or state agency. There are no designated Wild and Scenic Rivers in the Monterey Bay region (National Wild and Scenic Rivers System, http://www.rivers.gov/california.php, accessed 5-19-2014).

4.5.3.2 *State*

California Endangered Species Act (CESA)

The CESA was enacted in 1984. The California Code of Regulations (Title 14, §670.5) lists animal species considered endangered or threatened by the state. Section 2090 of CESA requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. Section 2080 of the Fish and Game Code prohibits "take" of any species that the commission determines to be an endangered species or a threatened species. A Section 2081 Incidental Take Permit from the CDFW may be obtained to authorize “take” of state listed species.

California Fish and Game Code

Birds

Section 3503 of the Fish and Game Code states that it is “unlawful to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Section 3503.5 prohibits the killing, possession, or destruction of any birds in the orders Falconiformes or Strigiformes (birds-of-prey). Section 3511 prohibits take or possession of fully protected birds. Section 3513 prohibits the take or possession of any migratory nongame birds designated under the federal Migratory Bird Treaty Act. Section 3800 prohibits take of nongame birds.

Fully Protected Species

The classification of fully protected was the state's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish (§5515), mammals (§4700), amphibians and reptiles (§5050), and birds (§3511). Most fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations. Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Lake or Streambed Alteration

Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the CDFW before beginning construction. If the CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. The CDFW jurisdictional limits are

usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider.

Species of Special Concern

As noted above, the CDFW also maintains a list of animal "species of special concern." Although these species have no legal status, the CDFW recommends considering these species during analysis of project impacts to protect declining populations and avoid the need to list them as endangered in the future.

California Native Plant Protection Act (CNPPA)

The CNPPA of 1977 directed the CDFW to carry out the legislature's intent to "preserve, protect and enhance rare and endangered plants in the state." The CNPPA prohibits importing rare and endangered plants into California, taking rare and endangered plants, and selling rare and endangered plants. The CESA and CNPPA authorized the Fish and Game Commission to designate endangered, threatened and rare species and to regulate the taking of these species (§2050-2098, Fish and Game Code). Plants listed as rare under the CNPPA are not protected under CESA.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne) is California's statutory authority for the protection of water quality and applies to surface waters, wetlands, and groundwater, and to both point and nonpoint sources. Under Porter-Cologne, the State Water Resources Control Board (State Board or SWRCB) has the ultimate authority over state water rights and water quality policy. However, Porter-Cologne also establishes nine Regional Water Quality Control Boards (RWQCB) to oversee water quality on a day-to-day basis at the local/regional level. The Project Study Area is located within Region 3 – Central Coast RWQCB. Porter-Cologne incorporates many provisions of the federal CWA, such as delegation to the State Board and RWQCBs of the National Pollutant Discharge Elimination System (NPDES) permitting program.

Under Porter-Cologne, the state must adopt water quality policies, plans, and objectives that protect the state's waters for the use and enjoyment of the people. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans. Porter-Cologne sets forth the obligations of the State Board and RWQCBs to adopt and periodically update water quality control plans (basin plans). The act also requires waste dischargers to notify the RWQCBs of such activities through filing of Reports of Waste Discharge (RWD) and authorizes the State Board and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWD requirements and WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects, when implemented according to prescribed terms and conditions.

The term "Waters of the State" is defined by Porter-Cologne as "any surface water or groundwater, including saline waters, within the boundaries of the state." The RWQCB protects all waters in its regulatory scope but has special responsibility for wetlands, riparian areas, and headwaters, including isolated wetlands, and waters that many not be regulated by the USACOE under Section 404 of the CWA. Waters of the State are regulated by the RWQCB

under the State Water Quality Certification Program, which regulates discharges of fill and dredged material under Section 401 of the CWA and Porter-Cologne.

California Coastal Act

The California Coastal Commission (CCC) was established by voter initiative in 1972 (Proposition 20) and later made permanent by the California State Legislature through adoption of the California Coastal Act of 1976. The CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. California's coastal zone generally extends 1,000 yards inland from the mean high tide line. In significant coastal estuarine habitat and recreational areas, it extends inland to the first major ridgeline or five miles from the mean high tide line, whichever is less. In developed urban areas, the boundary is generally less than 1,000 yards (NOAA website http://coastalmanagement.noaa.gov/consistency/resources.html link to State Coastal Zone Boundaries). Development activities, which are broadly defined by the Coastal Act to include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a Coastal Development Permit (CDP) from either the CCC or the local government if a Local Coastal Program (LCP) has been certified. After certification of a LCP, coastal development permit authority is delegated to the appropriate local government, but the Commission retains original permit jurisdiction over certain specified lands (such as tidelands and public trust lands). The Commission also has appellate authority over development approved by local governments in specified geographic areas as well as certain other developments. A CDP is required in addition to any other permit required from resource agencies.

The Commission or the local government may designate areas of rare or unique biological value, such as wetland and riparian habitat and habitats for special-status species, as Environmentally Sensitive Habitat Areas (ESHA). Section 30107.5 of the CCA defines an "environmentally sensitive area" as any area in which plant or animal life or their habitat are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Development is restricted within the coastal zone and prohibited within designated ESHA, unless the development is coastal dependent and does not have a significant effect on the resources. Coastal Act Section 30240 states that "environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas." This section also states that "development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas."

4.5.3.3 *Regional and Local*

Fort Ord Habitat Management Plan (HMP)

The U.S. Army's decision to close and dispose of the Fort Ord military base was considered a major federal action that could affect listed species under the ESA. The USFWS issued a Final Biological Opinion (BO) on the disposal and reuse of former Fort Ord requiring that a HMP be developed and implemented to reduce the incidental take of listed species and loss of habitat that supports these species (October 19, 1993). The HMP was prepared to assess impacts on vegetation and wildlife resources and provide mitigation for their loss associated with the disposal and reuse of former Fort Ord (USACOE, 1997).

The HMP establishes guidelines for the conservation and management of species and habitats on former Fort Ord lands by identifying lands that are available for development, lands that have some restrictions with development, and habitat reserve areas. The intent of the plan is to establish large, contiguous habitat conservation areas and corridors to compensate for future development in other areas of the former base. The HMP identifies what type of activities can occur on each parcel at former Fort Ord and parcels are designated as "development with no restrictions," "habitat reserves with management requirements," or "habitat reserves with development restrictions." The HMP sets the standards to assure the long-term viability of former Fort Ord's biological resources in the context of base reuse so that no further mitigation should be necessary for impacts to species and habitats considered in the HMP. This plan has been approved by the Service; the HMP, deed restrictions, and Memoranda of Agreement between the Army and various land recipients provide the legal mechanism to assure HMP implementation. It is a legally binding document, and all recipients of former Fort Ord lands are required to abide by its management requirements and procedures.

The HMP anticipates some losses to special-status species and sensitive habitats as a result of redevelopment of the former Fort Ord. With the designated reserves and corridors and habitat management requirements in place, the losses of individuals of species and sensitive habitats considered in the HMP are not expected to jeopardize the long-term viability of those species, their populations, or sensitive habitats on former Fort Ord. Recipients of disposed land with restrictions or management guidelines designated by the HMP will be obligated to implement those specific measures through the HMP and through deed covenants.

The Coordinated Resource Management and Planning (CRMP) process is a multi-agency multi-jurisdictional land use planning effort developed under the sponsorship of the California CRMP Memorandum of Understanding (MOU). This MOU has been signed by 14 federal and state agencies, including the BLM, CDFW, USFWS, Monterey County, and University of California. The CRMP program provides a mechanism for public agencies to share resources to deliver the most efficient habitat protection and public services for the money expended.

However, the HMP does not provide specific authorization for incidental take of federal or state listed species to existing or future non-federal land recipients under the ESA or CESA. In compliance with the ESA and CESA, FORA is currently in the process of obtaining a Section 10(a)(1)(B) Incidental Take Permit from the Service and Section 2081 Incidental Take Permit from the CDFW, which will provide base-wide coverage for the take of federal and state listed wildlife and plant species to all non-federal entities receiving land on the former Fort Ord. This process involves the preparation of a Habitat Conservation Plan (HCP) and Implementing Agreement (IA). The Administrative Draft Installation-Wide Multispecies HCP and IA are currently in draft form and being reviewed by the resource agencies. The base-wide Incidental Take Permits are expected to be issued by the USFWS and CDFW in 2015.

All Proposed Project components located on former Fort Ord land are proposed within designated development parcels. Parcels designated as "development" have no management restrictions. However the BO and HMP require the identification of sensitive biological resources within the development parcels that may be salvaged for use in restoration activities in reserve areas.

Monterey County Code

Title 16, Chapter 16.60, Monterey County Code, provides for the preservation of oaks and other protected tree species within the unincorporated areas of the County. As defined in Chapter 16.60.040 C, removal of more than three protected trees on a lot in a one-year period requires a Forest Management Plan (FMP) and approval of a Use Permit by the Monterey County

Planning Commission. The FMP must be prepared by a qualified forester selected from the County's list of consultants. Chapter 16.060.040 D requires that the applicant relocate or replace each removed tree on a one-to-one ratio. This ratio may be varied upon showing that such a requirement will create a special hardship in the use of the site or such a replacement would be detrimental to the long-term health and maintenance of the remaining habitat.

City of Marina Municipal Code Chapter 12.04

The City of Marina Municipal Code Chapter 12.04 (Tree Removal, Preservation, and Protection) outlines the city's policies regarding tree removal and relocation. The policies applicable to the Proposed Project include Section 12.04.030 (Unlawful Action upon Trees) and Section 12.04.060 (Tree Removal Permit). As outlined in Section 12.04.060 (D), if it is determined by the City of Marina that adverse effects of tree removal can be mitigated, conditions shall be imposed on the removal, including, but not limited to, one or more of the following: 1) compensation plan, 2) site restoration plan, and 3) tree protection plan and program.

City of Sand City

There are no Sand City codes related to biological resources applicable to the Proposed Project, including tree removal ordinances.

City of Seaside Municipal Code Chapter 8.54

The City of Seaside Municipal Code Chapter 8.54 (Trees) outlines the policies regarding tree removal and planting. The policies applicable to the Proposed Project include Section 8.54.030 (Permit—required for certain tree removal, alteration or planting), Section 8.54.060 (New construction, development, subdivisions and site plans), and Section 8.54.070 (Replacement of Trees). As outlined in Section 8.54.070, if removal of a tree from a site has been authorized on an undeveloped parcel, the developer shall replace the tree with a minimum five-gallon specimen tree of a species and in a location approved by the board of architectural review, if applicable, or other individual or body responsible for the approval of applicant's plans. This requirement may be modified or waived if it is determined that replacement on one-for-one basis constitutes an unreasonable hardship.

City of Monterey Municipal Code Chapter 37

The City of Monterey Municipal Code Chapter 37 (Preservation of Trees and Shrubs) outlines the city's policies regarding tree removal. The policies applicable to the Proposed Project include Section 37-2.5 (Protection of Trees During Construction), Section 37-8 (Removal or damaging trees on private property; permit required), and Section 37-11 (Conditions of Removal/Mitigation measures). As outlined in Section 37-11 (D), if it is determined by the City of Monterey that adverse effects of tree removal can be mitigated, conditions shall be imposed on the removal, including, but not limited to, one or more of the following: 1) No replacement tree, 2) One replacement tree, 3) Up to three replacement trees, 4) Payment in lieu of replacement, 5) Payment in lieu of maintenance, 6) Maintenance and care program, and 7) Replacement tree maintenance.

Habitat Conservation Plans and Natural Community Conservation Plans

There are no adopted Habitat Conservation Plans (HCP) or Natural Community Conservation Plans (NCCP) associated with the Proposed Project Study Area. A Draft HCP is currently in progress and that process and document are described in the Fort Ord Habitat Management Plan section above.

Plans and Policies Consistency Analysis

Table 4.5-6, Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial describes the state, regional, and local land use plans, policies, and regulations pertaining to terrestrial biological resources that are relevant to the Proposed Project and that were adopted for the purpose of avoiding or mitigating an environmental effect. Also included in **Table 4.5-6** is an analysis of project consistency with these plans, policies, and regulations. In some cases, policies contain requirements that are included within enforceable regulations of the relevant jurisdiction. Where the analysis concludes the project would not conflict with the applicable plan, policy, or regulations, the finding and rationale are provided. Where the analysis concludes the project may conflict with the applicable plan, policy, or regulation, the reader is referred to **Section 4.5.4**, Environmental Impacts and Mitigation Measures, for additional discussion, including the relevant impact determination and mitigation measures.

Table 4.5-6
Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial

Project Planning Region	Applicable Plan	Plan Element / Section	Project Component(s)	Specific Policy or Program	Project Consistency with Policies, and Programs
Monterey County	Monterey County General Plan	Conservation and Open Space	Tembladero Slough Diversion Site Treatment Facilities at the Regional Treatment Plant RUWAP Alignment Option Coastal Alignment Option Reclamation Ditch Diversion Site Salinas Treatment Facility Blanco Drain Pump and Pipeline Diversion Site	Policy OS-5.4: Development shall avoid, minimize, and mitigate impacts to listed species and critical habitat to the extent feasible. Measures may include but are not limited to: a. clustering lots for development to avoid critical habitat areas, b. dedications of permanent conservation easements; or c. other appropriate means. If development may affect listed species, consultation with USFWS and CDFW may be required and impacts may be mitigated by expanding the resource elsewhere on-site or within close proximity off-site. Final mitigation requirements would be determined as required by law.	Consistent, with Mitigation: Listed species occur or have potential to occur within some of the Proposed Project component sites. Construction of these project components may disrupt such species. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	Monterey County General Plan	Conservation and Open Space	Tembladero Slough Diversion Site Treatment Facilities at the Regional Treatment Plant RUWAP Alignment Option Coastal Alignment Option Reclamation Ditch Diversion Site Salinas Treatment Facility Blanco Drain Pump and Pipeline Diversion Site	Policy OS-5.6: Native and native compatible species, especially drought resistant species, shall be utilized in fulfilling landscaping requirements.	Consistent, with Mitigation: Upon completion of construction, disturbed areas would be restored to their approximate pre-construction condition. Site restoration could involve the use of non-native plant species. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	Monterey County General Plan	Conservation and Open Space	Tembladero Slough Diversion Site Treatment Facilities at the Regional Treatment Plant RUWAP Alignment Option Coastal Alignment Option Reclamation Ditch Diversion Site Salinas Treatment Facility Blanco Drain Pump and Pipeline Diversion Site	Policy OS-5.16: A biological study shall be required for any development project requiring a discretionary permit and having the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare, or threatened species. An ordinance establishing minimum standards for a biological study and biological surveys shall be enacted. A biological study shall include a field reconnaissance performed at the appropriate time of year. Based on the results of the biological study, biological surveys may be necessary to identify, describe, and delineate the habitats or species that are potentially impacted. Feasible measures to reduce significant impacts to a less-than-significant level shall be adopted as conditions of approval.	Consistent, with Mitigation: Special-status species, critical habitat, sensitive natural communities, and wetlands and waters occur or have the potential to occur within, or in the vicinity of, some of the Proposed Project component sites. Construction could disrupt these species, habitats, and communities. These issues are addressed further in Impacts BT-1, BT-2, BT-5, and BT-6 and mitigation measures are provided to reduce or avoid any impacts. A biological study was prepared for the Proposed Project.
Monterey County	Monterey County General Plan	Conservation and Open Space	Tembladero Slough Diversion Site Treatment Facilities at the Regional Treatment Plant RUWAP Alignment Option Coastal Alignment Option Reclamation Ditch Diversion Site Salinas Treatment Facility Blanco Drain Pump & Pipeline Diversion	Policy OS-5.18: Prior to disturbing any federal or state jurisdictional areas, all applicable federal and state permitting requirements shall be met, including all mitigation measures for development of jurisdictional areas and associated riparian habitats.	Consistent, with Mitigation: Construction of some of the Proposed Project components could disturb wetlands and waters. This issue is addressed further in Impacts BT-2 and BT-6 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	Monterey County General Plan	Conservation and Open Space	Tembladero Slough Diversion Site Treatment Facilities at the Regional Treatment Plant RUWAP Alignment Option Coastal Alignment Option Reclamation Ditch Diversion Site Salinas Treatment Facility Blanco Drain Pump and Pipeline Diversion Site	Policy OS-5.24: The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat. The County shall require that expansion of its roadways and public infrastructure projects provide movement opportunities for terrestrial wildlife and ensure that existing stream channels and riparian corridors continue to provide for wildlife movement and access.	Consistent: Construction of the Proposed Project would not substantially disrupt wildlife habitat or movement through wildlife corridors.
Monterey County	Monterey County General Plan	Conservation and Open Space	Tembladero Slough Diversion Site Treatment Facilities at the Regional Treatment Plant RUWAP Alignment Option Coastal Alignment Option Reclamation Ditch Diversion Site Salinas Treatment Facility Blanco Drain Pump and Pipeline Diversion Site	Policy OS-5.25: Occupied nests of statutorily protected migratory birds and raptors shall not be disturbed during the breeding season (generally February 1 to September 15). The County shall: a. Consult, or require the developer to consult, with a qualified biologist prior to any site preparation or construction work in order to: 1. Determine whether work is proposed during nesting season for migratory birds or raptors, 2. Determine whether site vegetation is suitable to nesting migratory birds or raptors, 3. Identify any regulatory requirements for setbacks or other avoidance measures for migratory birds and raptors which could nest on the site, and 4. Establish project-specific requirements for setbacks, lock-out periods, or other methods of avoidance of disruption of nesting birds. b. Require the development to follow the recommendations of the biologist. This measure may be implemented in one of two ways: 1. Preconstruction surveys may be conducted to identify active nests and, if found, adequate buffers shall be provided to avoid active nest disruption until after the young have fledged; or 2. Vegetation removal may be conducted during the non-breeding season (generally September 16 to January 31); however, removal of vegetation along waterways shall require approval of all appropriate local, state, and federal agencies. This policy shall not apply in the case of an emergency fire event requiring tree removal. This policy shall apply for tree removal that addresses fire safety planning, since removal can be scheduled to reduce impacts to migratory birds and raptors.	Consistent, with Mitigation: Construction of some of the Proposed Project components could disturb migratory birds and raptors during the breeding season. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.

Table 4.5-6
Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial

Project Planning Region	Applicable Plan	Plan Element / Section	Project Component(s)	Specific Policy or Program	Project Consistency with Policies, and Programs
County of Monterey	Monterey County General Plan	Conservation and Open Space	Tembladero Slough Diversion Site Treatment Facilities at the Regional Treatment Plant RUWAP Alignment Option Coastal Alignment Option Reclamation Ditch Diversion Site Salinas Treatment Facility Blanco Drain Pump and Pipeline Diversion Site	Policy OS-4.1: Federal and State listed native marine and fresh water species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant shall be protected. Species designated in Area Plans shall also be protected.	Consistent, with Mitigation: Special-status species could occur within Proposed Project component sites. Construction could result in impacts to special-status species. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	Greater Monterey Peninsula Area Plan	Conservation / Open Space	Treatment Facilities at the Regional Treatment Plant RUWAP Alignment Option Coastal Alignment Option Blanco Drain Pump and Pipeline Diversion Site	Policy GMP-3.6: A 100-foot setback from all wetlands, as identified by a County-approved biologist, shall be provided and maintained in open space use. No new development shall be allowed in this setback area. No landscape alterations will be allowed in this setback area unless accomplished in conjunction with a restoration and enhancement plan prepared by a County-approved biologist and approved by the California Department of Fish and Wildlife.	Consistent, with Mitigation: Construction and maintenance activities would occur within 100 feet of wetlands and could disrupt sensitive habitats and species. These issues are addressed further in Impacts BT-1 and BT-5 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	North County Land Use Plan	Resource Management	Tembladero Slough Diversion Site	Policy 2.3.2.1: With the exception of resource dependent uses, all development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures, shall be prohibited in the following environmentally sensitive habitat areas: riparian corridors, wetlands, dunes, sites of known rare and endangered species of plants and animals, rookeries, major roosting and haul out sites, and other wildlife breeding or nursery areas identified as environmentally sensitive. Resource dependent uses, including nature education and research hunting, fishing and aquaculture, where allowed by the plan, shall be allowed within environmentally sensitive habitats only if such uses will not cause significant disruption of habitat values.	Consistent, with Mitigation: Construction and maintenance of the Tembladero Slough Diversion could disrupt sensitive habitats and species. The project component at this site would be considered a resource dependent use. These issues are addressed further in Impacts BT-1 and BT-5 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	North County Land Use Plan	Resource Management	Tembladero Slough Diversion Site	Policy 2.3.2.2: Land uses adjacent to locations of environmentally sensitive habitats shall be compatible with the long-term maintenance of the resource. New land uses shall be considered compatible only where they incorporate all site planning and design features needed to prevent habitat impacts, upon habitat values and where they do not establish a precedent for continued land development which, on a cumulative basis, could degrade the resource.	Consistent, with Mitigation: Construction and maintenance of the Tembladero Slough Diversion could disrupt sensitive habitats and species. These issues are addressed further in Impacts BT-1 and BT-5 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	North County Land Use Plan	Resource Management	Tembladero Slough Diversion Site	Policy 2.3.2.5: Where private or public development is proposed in documented or potential locations of environmentally sensitive habitats - particularly those habitats identified in General Policy No. 1- field surveys by qualified individuals or agencies shall be required in order to determine precise locations and to recommend mitigating measures to ensure protection of any sensitive habitat present. The required survey shall document that the proposed development complies with all applicable environmentally sensitive habitat policies.	Consistent, with Mitigation: Construction and maintenance of the Tembladero Slough Diversion could disrupt sensitive habitats and species. These issues are addressed further in Impacts BT-1 and BT-5 and mitigation measures are provided to reduce or avoid any impacts. A biological study was prepared for the Proposed Project.
Monterey County	North County Land Use Plan	Resource Management	Tembladero Slough Diversion Site	Policy 2.3.2.10: Construction activities, industrial, and public and commercial recreational uses which would affect rare and endangered birds shall be regulated to protect habitats of rare, endangered, and threatened birds during breeding and nesting seasons. Regulations may include restriction of access, noise abatement, and restriction of hours of operation of public or private facilities. Regulations shall not prohibit emergency operation of service and public utility equipment. Access in such locations shall be confined to appropriate areas on designated trails and paths. No access shall be approved which results in significant disruption of habitat.	Consistent, with Mitigation: Construction of the Tembladero Slough Diversion could disrupt rare and endangered birds. These issues are addressed further in Impacts BT-1 and BT-5 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	North County Land Use Plan	Resource Management	Tembladero Slough Diversion Site	Policy 2.3.3.B1: Riparian plant communities shall be protected by establishing setback requirements consisting of 150 feet on each side of the bank of perennial streams, and 50 feet on each side of the bank of intermittent streams, or the extent of riparian vegetation, whichever is greater. In all cases, the setback must be sufficient to prevent significant degradation of the habitat area. The setback requirement may be modified if it can be conclusively demonstrated by a qualified biologist that a narrower corridor is sufficient or a wider corridor is necessary to protect existing riparian vegetation from the impacts of adjacent use.	Consistent, with Mitigation: Construction and maintenance of the Tembladero Slough Diversion could disrupt sensitive habitats and species. These issues are addressed further in Impacts BT-1 and BT-5 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	North County Land Use Plan	Resource Management	Tembladero Slough Diversion Site	Policy 2.3.3.B2: All development, including dredging, filling, and grading within stream corridors, shall be limited to activities necessary for flood control purposes, water supply projects, improvement of fish and wildlife habitat, or laying of pipelines when no alternative route is feasible, and continued and future use of utility lines and appurtenant facilities. These activities shall be carried out in such a manner as to minimize impacts from increased runoff, sedimentation, biochemical degradation, or thermal pollution. When such activities require removal of riparian plant species, re-vegetation with native plants shall be required.	Consistent, with Mitigation: The Proposed Project is a water supply project. Mitigation measures are provided in this section to reduce or avoid any impacts.

Table 4.5-6
Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial

Project Planning Region	Applicable Plan	Plan Element / Section	Project Component(s)	Specific Policy or Program	Project Consistency with Policies, and Programs
Monterey County	North County Land Use Plan	Resource Management	Tembladero Slough Diversion Site	Policy 2.3.3.B4: A setback of 100 feet from the landward edge of vegetation of all coastal wetlands shall be provided and maintained in open space use. No permanent structures except for those necessary for resource-dependent use which cannot be located elsewhere shall be constructed in the setback area. Prior to approval of all proposed structures in the setback area, it must be demonstrated that the development does not significantly disrupt the habitat resource.	Consistent, with Mitigation: Potential wetlands or waters were observed within the vicinity of the Tembladero Slough Diversion site. Construction of this component could impact these features. This issue is addressed further in Impact BT-2 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	North County Land Use Plan	Resource Management	Tembladero Slough Diversion Site	Policy 2.3.3.B6: Dredging or other major construction activities shall be conducted so as to avoid breeding seasons and other critical phases in the life cycles of commercial species of fish and shellfish and other rare, endangered, and threatened indigenous species.	Consistent, with Mitigation: Construction of the Tembladero Slough Diversion could disrupt breeding seasons and other critical phases in the life cycles of certain species. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	North County Land Use Plan	Resource Management	Tembladero Slough Diversion Site	Policy 2.3.3.C2: Critical wildlife habitat areas (refer to General Policy 2) shall be protected and an adequate distance based on a site-by-site analysis between such habitat and disturbed areas (e.g., building sites and roads) shall be maintained.	Consistent, with Mitigation: There is no designated critical habitat for terrestrial biological resources associated with the Tembladero Slough. However, construction of the Tembladero Slough Diversion could disrupt sensitive natural communities, wetlands and water, and species dependent upon those habitats. These issues are addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts. Potential impacts to fish critical habitat are addressed in Section 4.4, Biological Resources: Fisheries
Monterey County	North County Land Use Plan	Land Use and Development	Tembladero Slough Diversion Site	Key Policy 4.3.4: All future development within the North County coastal segment must be clearly consistent with the protection of the area's significant human and cultural resources, agriculture, natural resources, and water quality.	Consistent, with Mitigation: Construction of the Tembladero Slough Diversion could disrupt sensitive natural communities, wetlands and water, and species dependent upon those habitats. These issues are addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.
Monterey County	Monterey County Code	Chapter 21.64 – Special Regulations	Tembladero Slough Diversion Site Treatment Facilities at the Regional Treatment Plant RUWAP Alignment Option Coastal Alignment Option Reclamation Ditch Diversion Site Salinas Treatment Facility Blanco Drain Pump and Pipeline Diversion Site	Section 21.64.260 – Preservation of Oak and Other Protected Trees. In Monterey County oak trees within areas designated as Resource Conservation, Residential, Commercial, or Industrial cannot be removed without the approval of necessary permits. Exceptions include removal of oak trees pursuant to the purpose and standards required in areas designated as Agriculture, Industrial, and or Mineral Extraction. In addition, Title 20, Parts 2-5, addresses native tree removal and protection in the Coastal Zone and Title 21 outside the Coastal Zone. Chapter 16 of the Monterey County Municipal Code also addresses oak and other native tree protection. Native trees in Monterey County, as defined in the ordinance, include Santa Lucia fir, black cottonwood, Fremont cottonwood, box elder, willows, California laurel, sycamores, oaks and madrones. Trees must be at least six inches in diameter two feet above the ground level in order to be subject to these regulations. A landmark oak tree is defined as an oak tree that is 24 inches or more in diameter when measured two feet above ground level or one that is visually significant, historically significant, or exemplary of its species. Removal of any landmark tree is prohibited unless approved by the County Director of Planning and Building Inspection.	Consistent, with Mitigation: Construction of Proposed Project components could result in the removal of oak and other native trees. This issue is addressed further in Impact BT-1 and a mitigation measure is provided to reduce or avoid any impacts.
City of Marina	Marina General Plan	Biological Resources	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option	4.114 IMarGP): Within areas identified as supporting sensitive habitat(s), the following requirements shall apply: 1. With the exceptions of areas where an approved Habitat Management Program (HMP) or Habitat Conservation Program (HCP) allows development without restrictions, and for structures erected to maintain, restore or enhance sensitive habitat and species, require discretionary approval for all new structural and road development proposed within sensitive habitat areas or on sites supporting sensitive species and habitat. 2. Site and design those new structures or roads which may be allowed within designated Habitat Reserves or other identified sensitive habitat areas so as to minimize adverse impacts upon habitat areas. This may entail site plan modification and/or the inclusion of appropriate mitigation measures developed by biologists, soils engineers, or hydrologists (e.g., erosion and storm-drainage controls, wildlife culverts, and grading limitations).	Consistent, with Mitigation: Construction of some of the Proposed Project components would occur within, and could disrupt, sensitive natural communities (which may include wetlands and waters) and sites supporting special-status species. This issue is addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina	Marina General Plan	Biological Resources	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option	4.116 (MarGP): Where new development may remove all or a portion of identified sensitive habitat in an area not subject to an approved HMP or HCP, and where no less environmentally damaging alternative can be feasibly implemented, comparable habitat should be restored either on-site or off-site on a two-to-one basis (e.g., two acres of habitat shall be restored for every acre of habitat removed).	Consistent, with Mitigation: Construction of some of the Proposed Project components would occur within, and could disrupt, sensitive natural communities (which may include wetlands and waters). This issue is addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.

Table 4.5-6
Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial

Project Planning Region	Applicable Plan	Plan Element / Section	Project Component(s)	Specific Policy or Program	Project Consistency with Policies, and Programs
City of Marina	Marina General Plan	Biological Resources	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option	4.118 (MarGP): Where development sites are adjacent to areas designated as "Habitat Reserves" or other identified sensitive areas, site improvements and buildings shall be located and designed so as to avoid adverse impacts on the biological resource in question. Development shall be conditioned upon the incorporation of adequate mitigation measures in terms of site design. Such measures might include the following: a) providing an adequate buffer between new development and identified sensitive habitat; b) minimizing the need for grading that would substantially alter the existing topography; c) incorporating erosion- and sediment-control techniques during and after construction; d) establishing appropriate native landscaping between new development and sensitive habitat; and e) providing wildlife corridors or connections between the sensitive habitat and other natural open space areas.	Consistent, with Mitigation: Some of the Proposed Project sites are proposed for sites adjacent to areas designated as "Habitat Reserves and Other Open Space." These Habitat Reserves are comprised of sensitive natural communities (which may include wetlands and waters). Installation and maintenance of these components could disrupt such communities. This issue is addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina	Marina General Plan	Biological Resources	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option	4.119 (MarGP): As part of any application package for development proposed on undeveloped lands in former Fort Ord or on the Armstrong Ranch, seasonally timed surveys for known or suspected sensitive or unique species and habitats shall be undertaken by a qualified biologist approved by the City Community Development Director (except in those areas where such species have already been addressed by approved habitat conservation/management plans or similar plans or agreements). This information shall be provided as part of a preliminary site and development review, and, for development on former Fort Ord, should be submitted to CRMP for review and recommendations. Where such species are found to occur, mitigation plans (or Habitat Management Plans) shall be prepared in coordination with the USFWS and DFG unless approved habitat management plans are already in place.	Consistent, with Mitigation: A portion of the Proposed RUWAP Alignment option is located on undeveloped lands within the former Fort Ord that potentially support special-status species and sensitive natural communities. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina	Marina General Plan	Biological Resources	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option	4.122 (MarGP): The City shall require that lighting of streets and other public areas in proximity to areas of natural open space be shielded and as unobtrusive as possible so as to direct light away from habitat reserve areas and other areas of natural open space. The same requirements shall follow for outdoor lighting on private development sites adjacent to such lands.	Proposed Project consistency with plans, policies, and ordinances related to nighttime lighting is presented in Section 4.2, Aesthetic Resources.
City of Marina	Marina General Plan	Community Land Use – Primary Policies	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option	Policy 2.4.4: Wherever possible, lands with significant agricultural, natural habitat, or scenic value shall be retained and protected from degradation.	Consistent, with Mitigation: Construction and maintenance of Proposed Project components would occur within sensitive natural communities. This issue is addressed further in Impacts BT-1, BT-2, BT-5, and BT-6 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina	Marina General Plan	Community Design and Development	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option	Policy 4.112: The policies of the Community Land Use Element are designed to protect areas with significant agricultural or natural-habitat value from being displaced by development, and they are designed to protect and conserve air, water and energy resources.	Consistent, with Mitigation: Construction of some Proposed Project components would occur within and could disrupt sensitive natural communities (which may include wetlands and waters) and sites supporting special-status species. This issue is addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina	Marina General Plan	Community Land Use	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option	Policy 2.10: Lands designated as "Habitat Reserve and Other Open Space" are intended for permanent retention in open space to protect significant plants and wildlife inhabiting these areas. These lands consist of the following natural areas: 1. Riparian Habitat. Land occupied by riparian vegetation along the banks of the Salinas River shall be retained and the scarce riparian habitat preserved. Use of these lands for development purposes is further restricted by the potential for flooding. 2. Coastal Strand and Dunes. These lands adjacent to Monterey Bay provide habitat for rare, threatened wildlife and plant species. Approximately 1,600 acres west of Highway One are designated as habitat reserve for this purpose. Except for a limited number of areas where visitor-serving facilities and public park use is to be permitted, this entire area shall be retained as open space. As part of the "Habitat Reserve" designation, a stand-alone State Park designation is recognized as an appropriate use by this plan for the 370 acre Lonestar property,[14] with the condition that most of this site be provided with an implementing funding source for protection of its habitat values, and recreational uses be limited and subordinated to the habitat requirements of sensitive plant and wildlife species occurring here. On both public and privately owned lands, dune habitat shall be restored to a healthy condition. 3. Maritime Chaparral, Coastal Scrub, and Coast Live Oak Woodland. Approximately 1,160 acres of land within the Marina Planning Area is designated for permanent retention in open space so as to protect maritime chaparral, coastal scrub, and coast live oak woodlands and other plant and wildlife species that inhabit these areas. The designated lands include approximately 600 acres in the University of California Natural Reserve System located next to the Monterey Bay Educational, Science, and Technology Center; an adjoining 124- acre site occupying a combination of lands conveyed to the City as part of the transfer of the airport and adjacent land on Armstrong Ranch and 160 acres located within the larger East Garrison Reserve. Another 227-acre reserve is located south of Imjin Road. This area is a former landfill site that has been capped, and which will be restored as a natural habitat area. An additional 50 acres located along the east side of Highway One in the vicinity of the planned extension of Del Monte Boulevard is also a designated reserve 4. Wetlands. An area of 80 acres on the Armstrong Ranch property between Del Monte Boulevard and Highway One is designated as Habitat Reserve due to the presence of vernal ponds. Additional small areas where vernal ponds occur may exist elsewhere on the Armstrong	Consistent, with Mitigation: Some Proposed Project components are proposed for sites in areas designated as "Habitat Reserves and Other Open Space." These Habitat Reserves are comprised of sensitive natural communities (which may include wetlands and waters). Installation and maintenance these facilities could disrupt such communities. This issue is addressed further under Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.

[14] The Lonestar Property is currently owned by Cemex.

Table 4.5-6
Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial

Project Planning Region	Applicable Plan	Plan Element / Section	Project Component(s)	Specific Policy or Program	Project Consistency with Policies, and Programs
				property. Prior to approval of development plans for this property, biological field surveys shall be conducted to determine if additional vernal ponds exist. If such surveys document the existence of such ponds, development plans must provide either for the preservation or replacement of this habitat. In Central Marina, several vernal ponds are also designated as open space, and a potential seasonal pond is located at the southwest corner of the Reservation Road/Beach Road intersection. Any development application for this latter site shall be evaluated by a qualified biologist to determine the pond boundaries and any needed restoration measures consistent with the Marina Landing Enhancement Plan, incorporated as part of the 1989 Local Coastal Program Land Use Plan Amendment. (2005-82).	
City of Marina	City of Marina Land Use Plan	Policies	Coastal Alignment Option	Policy 24: To protect and encourage the restoration of the vernal ponds to their original state and allow only those uses adjacent which will reinforce and conserve the unique habitat qualities of these ponds.	Consistent, with Mitigation: Vernal ponds (including the pond associated with Locke-Paddon Park) occur in the vicinity of the Proposed Coastal Alignment option and could be adversely affected by pipeline construction. This issue is addressed further in Impact BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina	City of Marina Land Use Plan	Policies	Coastal Alignment Option	Policy 26: To regulate development in areas adjacent to recognized rare and endangered species or their habitats so that they will not threaten continuation of the species or its habitat.	Consistent, with Mitigation: Construction and maintenance of the Proposed Coastal Alignment option would occur adjacent to, and could indirectly disrupt, special-status species habitat. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina	City of Marina Land Use Plan	Planning Guidelines	Coastal Alignment Option	Rare and Endangered Species: Habitat Protection. In Marina's Coastal Zone, the foredune, dune and grassy inland areas all contain potential habitat for rare and endangered plants and animals. The precise range for each plant and animal is not known because intensive site-specific study throughout the area was not financially possible. However, the potential for various rare and endangered habitats has been identified and mapped (see Environmental Capability section) to provide a guide to the locations where more intensive study is required. Because a site-specific study is needed in many areas before any development can take place, the following policies apply to all of the areas indicated on the map1 or meeting the definitions of Exhibit "A" as being potential habitats for rare and endangered plants and animals. • Before any use or change in use, areas identified as potential habitat for rare and endangered plant or animal species shall be investigated by a qualified biologist to determine the physical extent of the primary habitat areas for the specific rare and endangered plants and animals on that site. • Primary habitat areas shall be protected and preserved. All development must be sited and designed so as not to interfere with the natural functions of such habitat areas. Management and enhancement opportunities should be incorporated into use or development proposals; potential impacts shall be mitigated. • Potential secondary or support habitat areas to the primary habitats identified on the site should also be defined. Secondary habitat investigation should include identification of the role and importance of the secondary area to the primary habitat area and should stress the impact of use or development in the secondary area on the primary habitat. All development in this area must be designed to prevent significant adverse impacts on the primary habitat areas. In concert with State law, City Ordinances shall require environmental review and appropriate mitigation of identified impacts for all development in the Coastal Zone. • Development in wetlands shall be prohibited. Access for nature observation shall be the only exception; and this access should not be permitted unless a qualified biologist determines that the impacts of construction and human observation can be sufficiently mitigated to insure continuation of the rare and endangered species and/or its habitat. • Available evidence indicates that dune vegetation is more resilient than previously thought, and areas damaged by illegal use or negligence shall be considered restorable and eligible for restoration. • Where habitats of rare and endangered species are located on any parcel, owners and/or operators shall, at such time that development is proposed, develop and execute a Management Plan which will protect identified rare and endangered plant and animal communities. Each plan should be drawn up by a qualified biologist in cooperation with the property owner developer. 1 Presumably this refers to the maps entitled "Natural Habitats" and "Potential Wildlife Habitats." 2 Exhibit 'A' Habitat Definitions: Primary habitat. This term includes all of the environmentally sensitive areas in Marina. These are as follows: 1. Habitat for all identified plant and animal species which are rare, endangered, threatened, or are necessary for the survival of an endangered species. These species will be collectively referred to as "rare and endangered". 2. Vernal ponds and their associated wetland vegetation. The Statewide Interpretive Guideline for Wetlands and Other Wet Environmentally Sensitive Habitat Areas (California Coastal Commission, February 14, 1981) contains technical criteria for establishing the inland boundary of wetland vegetation. 3. All native dune vegetation, where such vegetation is extensive enough to perform the special role of stabilizing Marina's natural sand dune formations. Secondary habitat. This term refers to areas adjacent to primary habitat areas within which development must be sited and designed to prevent impacts which would significantly degrade the primary habitat. The secondary habitat area will be presumed to include the following, subject to more precise determination upon individual site investigation: 1. The potential/known localities of rare and endangered plant species	Consistent, with Mitigation: Construction of some of the Proposed Project components would occur within special-status species habitats (including wetlands and including those defined as primary and secondary habitat in the City of Marina Local Coastal Land Use Plan). This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.

Table 4.5-6
Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial

Project Planning Region	Applicable Plan	Plan Element / Section	Project Component(s)	Specific Policy or Program	Project Consistency with Policies, and Programs
				as shown on LUP page 71 ("Disturbed Vegetation" map). 2. The potential wildlife habitats as shown on LUP page 75 ("Potential Wildlife" map). 3. Any area within 100 feet of the landward boundary of a wetland primary habitat area. Rare and endangered species. In Marina, this term will apply to those plant and animal species which are rare, endangered, threatened or are necessary for the survival of such species. The Environmental Analysis Report prepared for this LUP identified such species in the dune habitat areas. While future scientific studies may result in addition or deletion of species, the list presently includes: 1. Smith's Blue Butterfly (*Shijimiaeoides enoptes smithi*) 2. Globose Dune Beetle (*Coelus globosus*) 3. Black Legless Lizard (*Anniella pulchra nigra*) 4. Salinas Kangaroo Ray (*Dipodomys Heermanni Goldmani*) 5. Seaside Painted Cup (*Castilleja latifolia* ssp. *latifolia*) 6. Monterey Spine Flower (*Chorizanthe pungens var. pungens*) 7. Eastwood's Ericameria (*Ericameria fasciculata*) 8. Coast Wallfower (*Erysimum ammophilum*) 9. Menzies' Wallflower (*Erysimum menziesii*) 10. Coastal Dunes Milk Vetch (*Astragalus tener var. titi*) 11. Dune Gilia (*Gilia tenuiflora var. arenaria*) 12. Wild Buckwheat (*Erigonum latifolium*)* 13. Wild Buckwheat (*Erigonum parvifolium*)* 14. Bush Lupine (*Lupinus* ssp.)+ * only within the range of Smith's Blue Butterfly. + only within the range of the Black Legless Lizard.	
City of Marina	City of Marina Land Use Plan	Planning Guidelines	Coastal Alignment Option	Wetlands Protection. Despite their seasonal nature, the vernal ponds are considered to be coastal wetlands. There are several vernal ponds remaining in Marina's Coastal Zone; all but one supports a marsh. Most of the ponds are brackish and, except in the very wettest years, most are dry for some part of the year. The following shall be applied when planning in or near the vernal ponds: Because of their fragile geology, no new structures shall be allowed within the vernal pond itself. The only new structure allowed in the wetland area should be those designed for public access for nature observation. No access structure should be allowed without thorough investigation by a qualified biologist and geologist. Design should include mitigation for all impacts identified by these specialists. New development within the drainage areas of the natural Vernal Ponds shall be regulated to protect the vernal pond and its water quality. No development within the drainage area of a vernal pond should be approved without investigation by a qualified	Consistent, with Mitigation: Vernal ponds (including the pond associated with Locke-Paddon Park) occur in the vicinity of the proposed Coastal Alignment option. Construction could occur within the 100-foot riparian setback of the edge of the vernal ponds and water quality within the vernal ponds could be adversely affected by pipeline construction. This issue is addressed further in Impact BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina	Marina Municipal Code	Chapter 17.51 – Tree Removal, Preservation and Protection	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option	Chapter 17.51 – Tree Removal, Preservation and Protection includes measures to preserve and maintain existing trees. This ordinance requires that a tree removal permit be obtained from the City for any tree that shall be removed or relocated.	Consistent, with Mitigation: Construction of some of the Proposed Project components could result in tree removal. This issue is addressed further in Impact BT-1 and a mitigation measure is provided to reduce or avoid any impacts.
City of Seaside	Seaside General Plan	Conservation / Open Space Element	RUWAP Alignment Option Coastal Alignment Option Coastal Booster Pump Station Option Injection Well Facility Site Transfer Pipeline Monterey Pipeline	COS-4.1: Preserve ecological and biological resources by maintaining these resources as open space.	Consistent, with Mitigation: Construction of some of the Proposed Project components could occur within and disturb sensitive natural communities. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside	Seaside General Plan	Conservation/Open Space	RUWAP Alignment Option Coastal Alignment Option Coastal Booster Pump Station Option Injection Well Facility Site Transfer Pipeline Monterey Pipeline	Policy COS-4.2: Protect and enhance the creeks, lakes, and adjacent wetlands for their value in providing visual amenity, habitat for wildlife, and recreational opportunities.	Consistent, with Mitigation: Construction of some of the Proposed Project components could occur within, and/or disturb, wetlands or waters. This issue is addressed further in Impact BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside	City of Seaside Land Use Plan	Coastal Zone	Coastal Alignment Option Monterey Pipeline	Policy NCR-CZ 1.1.C: Minimize Adverse Effects to Natural Coastal Resources. New development shall be located in areas where it will not have a significant adverse effect either individually or cumulatively on natural coastal resources and public access and recreation.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and/or disturb, sensitive natural communities, wetlands, and/or special-status species habitat. These issues are addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.

Table 4.5-6
Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial

Project Planning Region	Applicable Plan	Plan Element / Section	Project Component(s)	Specific Policy or Program	Project Consistency with Policies, and Programs
City of Seaside	City of Seaside Land Use Plan	Coastal Zone	Coastal Alignment Option Monterey Pipeline	Policy NCR-CZ 3.1.A: Proposed development in areas adjacent to an ESHA, including wetlands (as identified earlier by Policies NCR-CZ 1.2.A and 1.3.A), shall be required to demonstrate that it is sited and designed to be compatible with the protection of these resources. …	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disrupt, environmentally sensitive habitat areas (which may include wetlands and waters). This issue is addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside	City of Seaside Land Use Plan	Coastal Zone	Monterey Pipeline	Policy NCR-CZ 1.2.A: Designation of ESHA. Areas of particular habitat value and fragility consistent with Policy LUD-CZ 1.3.B are considered Environmentally Sensitive Habitat Areas (ESHA). Actual determination of ESHA boundaries shall be based on facts on the ground at the time development is considered.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disrupt, environmentally sensitive habitat areas (which may include wetlands and waters). This issue is addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside	City of Seaside Land Use Plan	Coastal Zone	Monterey Pipeline	Policy NCR-CZ 1.2.B: Protection of ESHA ESHAs shall be protected against significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. Development in areas adjacent to ESHAs shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat areas. Site-specific surveys to confirm the presence and extent of identifiable plant and animal life or habitats shall be required for all new development in, and adjacent to, ESHA. Site-specific surveys shall be prepared by a qualified biologist and shall include recommended mitigation measures to avoid, and where avoidance is not possible, minimize sensitive habitat impacts.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disrupt, environmentally sensitive habitat areas (which may include wetlands and waters). This issue is addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside	City of Seaside Land Use Plan	Coastal Zone	Monterey Pipeline	Policy NCR-CZ 1.3.A: Designation of Wetlands. Areas periodically or permanently covered with water that meet the definition of wetland in Coastal Act Section 30121, are considered to be wetlands. The presence of either hydrology, soils, or vegetation must be evidenced for an area to qualify as a wetland. Actual determination of wetland boundaries shall be based on facts on the ground at the time development is considered.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disturb, wetlands. This issue is addressed further in Impact BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside	City of Seaside Land Use Plan	Coastal Zone	Monterey Pipeline	Policy NCR-CZ 1.3.B: Protection of Wetlands The biological health and productivity of wetland areas shall be maintained, and where feasible, restored. Development that may have an adverse effect on a wetland shall not be allowed. The biological productivity of coastal waters, streams, wetlands, estuaries, and lakes, shall be maintained and restored, where feasible, to maintain optimum populations of marine organisms and to protect human health where applicable. Maintenance and restoration efforts shall support biological productivity by minimizing adverse effects of wastewater discharges and entrainment; controlling runoff, preventing substantial interference with surface water flow, and minimizing alteration of natural streams; preventing depletion of groundwater supplies; encouraging wastewater reclamation; and maintaining natural vegetation buffer areas that protect riparian habitats.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disturb, wetlands and waters. This issue is addressed further in Impact BT-2 and mitigation measures are provided to reduce or avoid any impacts. Water quality is addressed in EIR Section 4.11, Surface Water Hydrology and Water Quality.
City of Seaside	City of Seaside Land Use Plan	Coastal Zone	Monterey Pipeline	Policy LUD-CZ 3.1.A: Considerations for Natural Habitat Areas – ESHA Proposed development in areas adjacent to an ESHA, including wetlands (as identified earlier by Policies NCR-CZ 1.2.A and 1.3.A), shall be required to demonstrate that it is sited and designed to be compatible with the protection of these resources. Proposed development in areas adjacent to an ESHA (including wetlands) shall be required to provide a site-specific resource report prepared by a qualified biologist. The report shall include, at a minimum, the following: A site-specific survey evaluating existing known resources at the time of proposed development. A map identifying existing known resources within the project's identified area of potential impact at the time of proposed development. An evaluation of necessary buffers and/or setbacks required around any identified ESHA, wetland or riparian vegetation to ensure the long term biological integrity of the resource. All identified necessary buffers and/or setbacks required to ensure the biological integrity of the resource shall be mapped. Buffers or setbacks are required around Natural Habitat Areas including ESHA, riparian vegetation, and wetlands of a sufficient size to ensure the biological integrity of the resource, including under changing sea level conditions. A minimum buffer of 50 feet as measured from the extent of identified habitat type shall be required, unless a biological assessment results in information indicating that expanded or reduced setback/buffer would ensure the biological integrity of the resource. Smaller setbacks or buffers may be allowed only if it can be demonstrated that: (1) the required minimum 50-foot buffer would render the site unusable for its designated use; and (2) the buffer has been adjusted downward only to a point where the designated use can be accommodated. Under no circumstances shall the buffer be reduced to less than 25-feet. If the buffer/setback is adjusted downward, additional mitigation measures developed in consultation with the Department of Fish & Game shall be implemented. No permanent structures shall be permitted within the required buffer/setback area except for structures of a minor nature that do not lead to significant degradation of the resource such as fences or at grade improvements for public access and/or recreation purposes (i.e. paths, trails, platforms, parking). Identification of all biological impacts of proposed development. Alternatives and/or mitigation for avoiding and/or reducing any identified impacts to a less than a significant level. Mitigation / Restoration and Monitoring Program for any mitigation required, including identification of appropriate acre replacement / restoration ratios for any unavoidable impacts.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disturb, environmentally sensitive habitat areas (which may include wetlands and waters). This issue is addressed further in I Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.

Table 4.5-6
Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial

Project Planning Region	Applicable Plan	Plan Element / Section	Project Component(s)	Specific Policy or Program	Project Consistency with Policies, and Programs
City of Seaside	City of Seaside Land Use Plan	Coastal Zone	Monterey Pipeline	Policy LUD-CZ 3.1B: Considerations for Natural Habitat Areas – Wetland Vegetation Management. For proposed development within the coastal zone, a Vegetation Management Report prepared by a qualified biologist shall be required. The report shall consist, at a minimum, of the following: A site-specific survey of the vegetation and habitat types at the time of proposed development. A map identifying existing vegetation and habitat types relative to the identified project area, and identification of all potential impacts associated with the proposed development. Identification of appropriate native plant species for use in restoration activities. Identification of appropriate buffers, or setbacks, necessary to protect identified vegetation Alternatives and/or mitigation for avoiding and/or minimizing identified impacts. Mitigation shall include procedures and planting/maintenance plans that will encourage, enhance, or reestablish desirable plant communities. The Vegetation Management Report shall be consistent with the most current version of the Wetland Management/Enhancement and Restoration Program (refer to Policy NCR-CZ 1.5D).	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within environmentally sensitive habitat areas (which may include wetlands and waters). This issue is addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside	Seaside Municipal Code	Chapter 8.54 – Trees	RUWAP Alignment Option Coastal Alignment Option Coastal Booster Pump Station Option Injection Well Facility Site Transfer Pipeline Monterey Pipeline	Chapter 8.54 –Regulates and controls the planting, removal, protection and preservation of trees within the city. A permit is required for the removal or alteration of any tree on private property in the city without a permit issued as provided in this chapter. A permit is also required to plant any Coast Redwood, Blue Gum Eucalyptus, Willow, Cottonwood or Poplar within the city.	Consistent, with Mitigation: Construction of some of the Proposed Project components could result in removal or alteration of trees. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Sand City	Sand City Land Use Plan	Costal Resource Management	Monterey Pipeline	Policy 4.3.22: Plans for protection of environmentally sensitive habitat shall be subject to the following standards: a. Prior to any development or specific plan approval which affects habitat areas identified on Figure 7 in the LCP, a qualified professional botanist shall prepare a plant survey and plan for the affected area which includes: 1. description of type and location of existing native and other species; 2. protection goals consistent with Policy 4.3.20; 3. in habitat preservation areas: methods for controlling public access and eliminating invasive non-native species (iceplant); 4. in habitat enhancement and consolidation areas: irrigation, fertilization and long-term maintenance requirements, and methods of establishing new native plants (e.g., seeding, transplanting) and eliminating iceplant; 5. mitigation measures for adverse impacts, such as loss of transplants to shock; 6. schedule setting forth time requirements for plant establishment, dune stabilization, access controls, etc.; b. Prior to approval of any development, specific plan, public works project or tentative subdivision map for these areas which may require habitat relocation or off-site restoration activities, a qualified professional botanist shall prepare a plan which, to the satisfaction of the California Department of Fish and Game, demonstrates: 1. the long-term suitability of the restored habitat for these species, including but not limited to wind protection, soil condition, and acre-for-acre replacement of habitat; 2. the management methods needed for installation, nurturing, and permanent protection of the restored habitat, including but not limited to the method of establishment (seed, hydromulch, transplant), and access restrictions; 3. the requirements for successful establishment of each species in another location, after which removal of the original plants may be possible. Prior to the commencement of any development which affects Areas 1, 2, or 5, the rare and endangered species located in these areas shall be successfully established in the appropriate locations (see Policies 4.3.20.a and 4.3.20.d). c. All habitat protection plans shall include the maximum feasible planting or protection of dune buckwheat (*Eriogonum parvifolium*) and *E. latifolium*) as a food source tor the endangered Smith's blue butterfly (*Shijimiaeoides enoptes smithi*). d. All habitat protection plans shall contain an implementation and management component which provides for: 1. fencing, signing, or other appropriate access control measures to be installed as a condition of development (or as a condition of permits for restoration activities if no other development is proposed). 2. responsibility by the developer for habitat installation, maintenance and preservation for at least five years. Permanent maintenance shall also be provided for, with	Consistent, with Mitigation: Installation of the Monterey Pipelines proposed for the coastal zone may occur within, and disrupt, environmentally sensitive habitat areas (which may include wetlands and waters), such as central dune scrub, and habitat for special-status species, such as Smith's blue butterfly. This issue is addressed in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey	Del Monte Beach Land Use Plan	Natural Coastal Resources	Monterey Pipeline	Policy 2: In areas of dunes habitat, a dune restoration program shall be required as a condition of approval for any new development. Dune habitat areas include, but are not limited to, those represented on the generalized mapping on Figure 3A in the LCP. Prior to approval of any specific development plan, public work project, or general development plan, the applicant shall have a qualified professional biologist/botanist prepare a dune restoration and protection plan that includes the following: a. Project description, including location of project, project description, and coordination required with other agencies b. Restoration and preservation goals and objectives to achieve these goals. c. Ecological considerations, including land use history at the restoration site, existing ecological conditions (including soil type and hydrologic regime, as well as existing plants and animals on site), and restoration constraints. d. Site Analysis including: (1) Environmentally sensitive habitat areas to be preserved without degradation; (2) Areas to be maintained and/or restored as buffers for environmentally sensitive habitat preservation areas; and (3) Dune restoration areas that are good ecological candidates for habitat restoration because of their biological and locational potential for reestablishment of environmentally sensitive habitat. e. A restoration implementation plan, including the following: (1) Regulatory and legal considerations (e.g., permits, liability); (2) Preconstruction requirements; (3) Site preparation; (4) Exotic species removal; (5) Procurement of native plant species propagules (must be from the site vicinity for genetic similarity); (6) List of species to be planted including size, spacing, and quantity of plants; (7) Planting plan/revegetation methods; (8) Irrigation plan (if necessary); (9) Schedule; (10) As builts; (11) Responsible parties. f. A site-wide management plan, including the following: (1) Maintenance activities during the monitoring period; (2) Long-term management activities; (3) Signs, fencing, allowable access; (4) Schedule; (5) Responsible parties for long-term and	Consistent, with Mitigation: Installation of the Monterey Pipeline would occur within, and could disrupt, central dune scrub. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.

Table 4.5-6
Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial

Project Planning Region	Applicable Plan	Plan Element / Section	Project Component(s)	Specific Policy or Program	Project Consistency with Policies, and Programs
				short-term management. g. Success criteria, including the following: (1) Final success criteria. These should refer specifically to the objectives of the plan, the monitoring methods, and contingency measures; (2) Interim success criteria (these should address the expected mortality rate). h. A monitoring plan, including the following: (1) Methods used to monitor progress in achieving each of the success criteria (quantitative and qualitative); (2) Final monitoring effort; (3) Reference site (include soil type, elevation, community description, disturbance regime/management, location and reference plots); (4) Statistical methods (5) Adaptive management (6) Annual reports (include results, recommendations, photo-documentation); (7) Schedule; (8) Responsible parties. i. Contingency measures, i.e. if the objectives and/or success criteria are not being met, what will be the potential methods for alleviating the problems. j. Funding (for all aspects of the preservation/restoration plan/project). k. References.	
City of Monterey	Del Monte Beach Land Use Plan	Natural Coastal Resources	Monterey Pipeline	Policy 3: All environmentally sensitive habitat shall be protected. Revegetation with wild buckwheat (*Eriogonum latifolium or E. parvifolium*) shall be included as part of the dune restoration program for any new development to enhance habitat for the Smith's blue butterfly.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disturb, central dune scrub, habitat for Smith's blue butterfly, and other environmentally sensitive habitats such as wetlands, riparian woodland and scrub, and coast live oak woodland. These issues are addressed further in Impacts BT-1 and BT-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey	Del Monte Beach Land Use Plan	Natural Coastal Resources	Monterey Pipeline	Policy 4: For any proposed development in the environmentally sensitive habitat areas of the Del Monte Beach area, as shown in, but not limited to, Figure 3A in the LCP, a resource survey shall be conducted, according to established protocols, for all sensitive species, including dune plants, snowy plover, black legless lizard, and marine mammals known to occur in the vicinity.	Consistent, with Mitigation: A number of special-status species have potential to occur within environmentally sensitive habitat areas within the Monterey Pipeline alignment. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey	Del Monte Beach Land Use Plan	Natural Coastal Resources	Monterey Pipeline	Policy 10: New development shall be sited to preserve native oak, pine, and cypress trees. In reviewing requests for tree removal, preservation of scenic resources shall be a primary objective. Removal of any significant living tree (diameter greater than 12 inches) will ordinarily be allowed only in cases where life, property, or existing access is immediately threatened, or where a diseased tree is determined by a qualified professional arborist to represent a severe and serious infection hazard to other surrounding trees.	Consistent, with Mitigation: Installation of the Monterey Pipeline could result in the removal of significant trees, including native oak, pine, and cypress. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey	Monterey Harbor Land Use Plan	Natural Resources	Monterey Pipeline	Policy 3.d: Revegetation with wild buckwheat (*Eriogonum parvifolium and latifolium*) shall be included as part of the dune restoration program for any new development to enhance habitat for the endangered Smith's Blue butterfly.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disrupt, Smith's Blue butterfly habitat. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey	Monterey Harbor Land Use Plan	Natural Resources	Monterey Pipeline	Policy 3.e: For any proposed development in the environmentally sensitive habitat areas of the Harbor LUP area, as shown in, but not limited to, Figure 2 in the LUP, a resource shall be conducted, according to established protocols, for all sensitive species, including dune plants, snowy plover, black legless lizard, and marine mammals known to occur in the vicinity.	Consistent, with Mitigation: A number of special-status species have potential to occur within environmentally sensitive habitat areas within the portion of the Monterey Pipeline alignment proposed for the Monterey Harbor LUP planning area. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey	Monterey Harbor Land Use Plan	Natural Resources	Monterey Pipeline	Policy 3.k: New development shall be sited to preserve native oak, pine, and cypress trees. In reviewing requests for tree removal, preservation of scenic resources shall be a primary objective. Removal of any significant living tree (diameter greater than 12 inches) will ordinarily be allowed only in case where life, property, or existing access is immediately threatened, or where a diseased tree is determined by a qualified professional arborist to represent a severe and serious infection hazard to other surrounding trees.	Consistent, with Mitigation: Installation of the Monterey Pipeline could result in the removal of significant trees, including native oak, pine, and cypress. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey	Monterey Harbor Land Use Plan	Natural Resources	Monterey Pipeline	Policy 3.l.: Native dune plant landscaping shall be required with any further development or redevelopment of portions of the recreation trail adjacent to dune habitat.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disrupt, central dune scrub. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey	CCC	Land Resources	Monterey Pipeline	Section 30240: Environmentally sensitive habitat areas; adjacent developments. a. Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. b. Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disrupt, environmentally sensitive habitat areas, which may include communities such as central dune scrub. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid

Table 4.5-6
Applicable Local Plans, Policies, and Regulations – Biological Resources: Terrestrial

Project Planning Region	Applicable Plan	Plan Element / Section	Project Component(s)	Specific Policy or Program	Project Consistency with Policies, and Programs
					any impacts.
City of Monterey	CCC	Marine Environment	Monterey Pipeline	Section 30233: Diking, filling or dredging; continued movement of sediment and nutrients The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities. Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps. In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities. Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines. Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas. Restoration purposes. Nature study, aquaculture, or similar resource dependent activities.	Consistent, with Mitigation: Installation of the Monterey Pipeline could occur within, and disrupt, wetlands or waters. This issue is addressed further in Impact BT-2 and mitigation measures are provided to reduce or avoid any impacts. Impacts related to wetlands or waters in the marine environment are discussed in EIR Section 4.13, Marine Biological Resources.
City of Monterey	Monterey City Code	Chapter 37 – Preservation of Trees and Shrubs	Monterey Pipeline	Chapter 37 – Preservation of Trees and Shrubs is intended to assure preservation of trees and replacement of trees when removal is unavoidable. A tree permit is required to be obtained from the City for removal or excessive pruning of any protected tree. Protected trees are defined as a) trees located on a vacant private parcel that are more than two inches (2") in diameter when measured at a point four feet six inches (4'6") above the tree's natural grade; and, b) trees located on a private, developed parcel that are more than six inches (6") when measured at a point four feet six inches (4'6") above the tree's natural grade. The City can also designate Local Landmark Trees, which is an outstanding, healthy, and prominent tree that is designated landmark in accordance to procedures established in the Municipal Code.	Consistent, with Mitigation: Installation of the Monterey Pipeline could result in the removal or substantial pruning of one or more protected tree or Local Landmark Tree. This issue is addressed further in Impact BT-1 and a mitigation measure is provided to reduce or avoid any impacts.
City of Pacific Grove	Pacific Grove Municipal Code	Title 12 – Trees and the Urban Forest	Monterey Pipeline	Title 12 – Trees and the Urban Forest is intended to facilitate the protection, preservation, and restoration of Pacific Grove's urban forest; and enhance the visual and aesthetic uniqueness of Pacific Grove, in accordance with the city of Pacific Grove General Plan. A tree permit is required to be obtained from the City for substantial pruning (greater than 25 percent of the live branches of the tree) or removal or any protect trees. Protected trees are defined as follows: Native Trees. All Gowen cypress, regardless of size; all Coast live oak, Monterey cypress, Shore pine, and Monterey pine six inches or greater in trunk diameter, measured at 54 inches above native grade.	Consistent, with Mitigation: Installation of the Monterey Pipeline could result in the removal of native trees. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts. Installation and maintenance of the Monterey Pipeline would not occur within 100 yards of designated Monarch Sanctuaries in Pacific Grove
Fort Ord Reuse Authority	Fort Ord Reuse Plan	Conservation	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option Coastal Booster Pump Station Injection Well Facility Site Transfer Pipeline	Biological Resources Policy A-9: The County shall encourage the preservation of small pockets of habitat and populations of HMP species within and around developed areas. Program A-9.1: The County shall require project applicants who propose development in undeveloped natural lands to conduct reconnaissance-level surveys to verify the general description of resources for the parcel provided in the biological resource documents prepared for the U.S. Army Corps of Engineers. The information gathered through these reconnaissance-level surveys shall be submitted as a component of the project application package. Program A-9.3: Where development will replace existing habitat which supports sensitive biological resources, the County shall encourage attempts to salvage some of those resources by collecting seed or cuttings of plants, transplanting vegetation, or capturing and relocating sensitive wildlife species.	Consistent, with Mitigation: Construction of some of the Proposed Project components could occur within, and disturb, a potential wetland impact Fort Ord HMP plant or wildlife species. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.
Fort Ord Reuse Authority	Fort Ord Reuse Plan	Conservation	RUWAP Alignment Option RUWAP Booster Pump Station Option Coastal Alignment Option Coastal Booster Pump Station Injection Well Facility Site Transfer Pipeline	Biological Resources Policy C-3: Lighting of outdoor areas shall be minimized and carefully controlled to maintain habitat quality for wildlife in undeveloped natural lands. Street lighting shall be as unobtrusive as practicable and shall be consistent in intensity throughout development areas adjacent to undeveloped natural lands.	Consistent, with Mitigation: Construction of some of the Proposed Project components could occur during nighttime hours. This issue is addressed further in Impact BT-1 and mitigation measures are provided to reduce or avoid any impacts.

4.5.4 Impacts and Mitigation Measures

4.5.4.1 *Significance Criteria*

Based on Appendix G of the CEQA Guidelines, the project would result in significant impacts related to terrestrial biological resources if it would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS).
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.5.4.2 *Impact Analysis Overview*

Areas of No Impact

All of the significance criteria outlined above are discussed within this section because they are potentially applicable to the Proposed Project.

Approach to Analysis

This section describes the methods used to analyze potential terrestrial biological resources impacts of the Proposed Project. This impact analysis addresses direct and indirect impacts that may result from the construction and operation of the Proposed Project components. Direct impacts are those effects of a project that occur at the same time and place of project implementation, such as removal of habitat from ground disturbance. Indirect impacts are those effects of a project that occur either later in time or at a distance from the Project Study Area but are reasonably foreseeable, such as loss of aquatic species due to upstream effects on water quality or quantity. Direct and indirect impacts can also vary in duration and result in temporary, short-term, and long-term effects on biological resources. A temporary effect would occur only during an activity that would happen for a short period of time, then end. A short-term effect would last from the time an activity ceases to some intermediate period of approximately one to five years (i.e., repopulation of habitat following restoration). A long-term or permanent effect would last longer than 5 years after an activity ceases. Long-term effects may result from

ongoing maintenance and operation of a project, or may result from a permanent change in the condition of a resource, in which case it could be considered a permanent impact.

Construction Impacts

This impact analysis assumes that the construction activities would be limited to the Project Study Area. The Proposed Project would result in the construction of a variety of permanent features required for the operation of the Proposed Project, including, but not limited to, pipelines, pump stations, a water treatment facility, and Injection Well Facilities. Some components would be located underground (e.g., pipelines) and, therefore, construction activities may result in temporary, short-term impacts to biological resources but would not result in long-term permanent impacts. For the above-ground Proposed Project components (source water diversion sites, Treatment Facilities at the Regional Treatment Plant, booster pump station options, etc.), construction activities would potentially result in permanent, long-term impacts to biological resources.

Operational Impacts

Daily operation of the pipelines and other underground Proposed Project components would not result in impacts to biological resources; however, periodic maintenance activities associated with project operations would potentially result in ongoing impacts to biological resources. Maintenance activities associated with pipelines would include annual inspections, testing and servicing of valves, vegetation maintenance along rights-of-way, and repairs of minor leaks in buried pipeline joints or segments. In addition, it is anticipated that the deep injection wells at the Injection Well Facilities site would require back-flushing for about four hours about once per week and would require discharge of the back-flush water to a back-flush percolation basin.

While not affected by construction, potential operational impacts to surface water bodies, downstream of source water diversion sites (Blanco Drain, Reclamation Ditch, and Tembladero Slough) including the Salinas River, Lake El Estero, and the affected reaches of the Reclamation Ditch, Tembladero Slough, and the Old Salinas River Channel due to water diversions are also addressed.

HMP Species

All of the Proposed Project Study Area within the former Fort Ord is located within parcels designated by the HMP as “development.” Proposed Project components within the former Fort Ord include portions of the Product Water Conveyance pipeline and booster pump RUWAP and Coastal options, and Injection Well Facilities.[15]

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. As described in the Regulatory discussion above (**Section 4.5.3**), parcels designated as “development” have no management restrictions. However, the Biological Opinion (BO) and HMP require the identification of sensitive biological resources within these parcels that may be salvaged for use in restoration activities in reserve areas.

The HMP species known or with the potential to occur within the Proposed Project Study Area on the former Fort Ord include Monterey spineflower, sandmat manzanita, Monterey ceanothus,

[15] The Transportation Agency for Monterey County (TAMC) right-of-way that traverses through the former Fort Ord it is not on former Fort Ord property.

Eastwood's goldenbush, California legless lizard, and Monterey ornate shrew (see **Table 4.5-7, HMP Species and Habitats Identified within the Project Study Area on the former Fort Ord (in sq. ft. and acres)** below). With the designated habitat reserves and corridors and habitat management requirements of the HMP in place, the loss of one or more individuals of these species is not expected to jeopardize the long-term viability of these species and their populations on the former Fort Ord (USFWS, 1993). This is because the recipients of disposed land with restrictions or management guidelines designated by the HMP would be obligated to implement those specific measures through the HMP and deed covenants. In addition to the HMP species identified, impacts to sensitive central maritime chaparral habitat are also addressed in the HMP and, therefore, impacts to this habitat are also considered mitigated through the implementation of the HMP based on the same conclusions. 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 and habitats beyond those anticipated in the HMP, no additional mitigation measures for these HMP species or central maritime chaparral habitat are required. Impacts to these special-status species and central maritime chaparral are considered less-than-significant. However, because the BO and HMP require the identification of sensitive biological resources within development parcels that might be salvaged for use in restoration activities in reserve areas, additional mitigation measures are identified where appropriate to comply with and ensure consistency with the BO and HMP.

Table 4.5-7
HMP Species and Habitats Identified within the Project Study Area on the former Fort Ord (in sq. ft. and acres)

Biological Resource	Component Name		
	Product Water Conveyance**		Injection Well Facilities*
	RUWAP alignment option	Coastal alignment option	
Sandmat manzanita	0.5 ac.	--	8.9 ac
Monterey ceanothus	1,341 sq. ft.	--	17.8 ac
Monterey spineflower	2,063 sq. ft.	0.1 ac	0.1 ac
Eastwood's goldenbush	198 sq. ft.	--	2.8 ac
Maritime chaparral	1.9 ac	--	62.5 ac
California legless lizard	H/O	H/O	H
Monterey ornate shrew	H	H	H

Key: H = Habitat Present within Project Study Area; O = Occurrence (from CNDDB or other resource) within Project Study Area

*An additional area of approximately 39 acres was added to the Injection Well Facilities following the 2014 Focused Botanical Survey. Other areas of HMP plant species may be present in the additional area.

**Including pipelines and booster pump stations

Surface Water Bodies

Operational or long-term impacts on inland surface waterbodies (e.g., Salinas River, Reclamation Ditch, Tembladero Slough, and Lake El Estero) relative to flow quantities and water quality may occur due to facility siting, operational diversions of source water, discharges to surface waters, and maintenance activities. Biological resources operational impacts due to source water diversions are analyzed based on the results of the following technical reports:

- Draft Technical Memorandum for the Pure Water Monterey Groundwater Replenishment Project: Impacts of Changes in Percolation at the Salinas Industrial Wastewater Treatment Facility on Groundwater and the Salinas River (Todd Groundwater, 2015c) (Appendix N);
- Draft Salinas River Inflows Impacts Report (Schaaf & Wheeler, 2015a) (Appendix O);
- Draft Reclamation Ditch Yield Study (Schaaf & Wheeler, 2015b) (Appendix P);
- Draft Blanco Drain Yield Study (Schaaf & Wheeler, 2014a). (Appendix Q); and
- Draft Urban Runoff Capture at Lake El Estero (Schaaf & Wheeler, 2014b) (Appendix R).

The Schaaf & Wheeler studies evaluate changes to hydrology and water quality in Lake El Estero (including the beach and bay), and in the Salinas River due to the proposed changes to operation of the Salinas Treatment Facility and the City of Salinas urban stormwater runoff systems. In addition, these studies analyze potential changes in hydrology along identified affected reaches as a result of proposed direct diversions from the Reclamation Ditch, Tembladero Slough, and Blanco Drain. These analyses address how changes in the existing hydrology and water quality at Lake El Estero, the Salinas River, the Reclamation Ditch, Tembladero Slough, and Old Salinas River Channel may affect sensitive habitats (i.e., riparian, aquatic, or wetland habitats) and special-status species that are known or have the potential to benefit from or use these water bodies.

Summary of Impacts

Table 4.5-8, Summary of Impacts – Biological Resources provides a summary of potential impacts to biological resources and significance determinations at each Proposed Project component site.

Table 4.5-8
Summary of Impacts – Biological Resources: Terrestrial[16]

Impact Title	Source Water Diversion and Storage Sites						Treatment Facilities at Regional Treatment Plant	Product Water Conveyance		Injection Well Facilities	CalAm Distribution System		Project Overall
	Salinas Pump Station	Salinas Treatment Facility	Reclamation Ditch	Tembladero Slough	Blanco Drain (Pump Station and Pipeline)	Lake El Estero Diversion		RUWAP Alignment Option	Coastal Alignment Option		Transfer Pipeline	Monterey Pipeline	
BT-1: Construction Impacts to Special-Status Species and Habitat	LSM	LSM	LSM	LSM	LSM	LSM	NI	LSM	LSM	LSM	LSM	LSM	LSM
BT-2: Construction Impacts to Riparian, Federally Protected Wetlands as defined by Section 404 of the Clean Water Act, or Other Sensitive Natural Community.	NI	NI	LSM	LSM	LSM	NI	NI	LS	LSM	LS	NI	LSM	LSM
BT-3: Construction Impacts to Movement of Native Wildlife and Native Wildlife Nursery Sites.	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
BT-4: Construction Conflicts with Local Policies, Ordinances, or approved Habitat Conservation Plan.	LS	LS	LS	LS	LS	LS	LS	LSM	LSM	LSM	LS	LS	LSM
BT-5: Operational Impacts to Special-Status Species and Habitat.	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
BT-6: Operational Impacts to Riparian, federally protected wetlands as defined by Section 404 of the Clean Water Act, or Other Sensitive Natural Community.	LS	LS	LS	LS	LS	LS	NI	LS	LS	LS	NI	LSM	LSM
BT-7: Operational Impacts to Movement of Native Wildlife and Native Wildlife Nursery Sites.	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
BT-8: Operational Conflicts with Local Policies, Ordinances, or approved Habitat Conservation Plan.	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
Cumulative Impacts	LS: The Proposed Project would not make a considerable contribution to significant cumulative impacts to biological resources: terrestrial												
NI - No Impact *LS - Less than Significant* *LSM - Less than Significant with Mitigation* *SU - Significant Unavoidable* *BI – Beneficial Impact*													

[16] Impacts to Affected Reaches are presented in **Tables 4.5-9, 4.5-10**, and **4.5-11**.

4.5.4.3 *Construction Impacts and Mitigation Measures*

Impact BT-1: Construction Impacts to Special-Status Species and Habitat. Proposed Project construction may adversely affect, either directly or through habitat modification, special-status plant and wildlife species and their habitat within the Project Study Area. (Criteria a, b, c, and d) (Less than Significant with Mitigation)

Construction of the Proposed Project would result in direct and indirect impacts to special-status plant and wildlife species. Impacts to special-status species would occur due to use of heavy equipment and other construction activities that could result in the loss of individuals, soil compaction, dust, vegetation removal/loss of habitat, wildlife harassment or mortality, root damage, erosion, destruction or disturbance of nests, and introduction and spread of non-native, invasive species.

In addition, nighttime construction activities could introduce temporary nighttime lighting at some Proposed Project component locations. As discussed in **Chapter 2, Project Description**, the majority of construction activities would occur during the daytime and would not result in new or increased sources of light or glare. However, extended work hours into the night could be necessary during construction of certain Proposed Project components (specifically, the Treatment Facilities at the Regional Treatment Plant, Injection Well Facilities, and the Cal-Am Distribution System Pipeline: Monterey and Transfer Pipelines).

The following provides detailed analysis of the impacts by Proposed Project component.

Source Water Diversion and Storage Sites

Salinas Pump Station

No special-status plant species were observed at the Salinas Pump Station site and none are expected to occur. Therefore, no impacts to special-status plant species would occur as a result of construction activities associated the Salinas Pump Station improvements. Mature trees occur within the Salinas Pump Station site, which may provide suitable habitat for roosting special-status bat species and nesting raptors, migratory birds, or other protected avian species. Impacts to these species due to wildlife harassment and destruction or disturbance of nests are considered potentially significant and Mitigation Measures BT-1b, BT-1g, and BT-1k are identified below to reduce potential impacts to a less-than-significant level. No other suitable habitat for special-status wildlife species occurs at the Salinas Pump Station site.

This component would be constructed on a parcel that currently contains the existing Salinas Pump Station, which is an existing source of nighttime light due to the safety lighting at the facility. There are no other significant sources of light or glare in the vicinity, as this component is located within agricultural fields. Construction activities could result in increased glare from construction lighting and equipment, although the site is surrounded by developed land and active agricultural operations neither of which support sensitive biological resources. Additionally, construction activity at this site is not expected to extend past 8 PM. There may be times of construction that extend into 24-hour periods; however, nighttime lighting would be temporary and intermittent over the estimated five-month construction period and would not shine directly onto offsite areas. Thus, construction lighting would be of limited duration and visibility. Due to the absence of sensitive biological resources in the vicinity, nighttime construction lighting would not result in impacts to biological resources.

Salinas Treatment Facility

Construction activities at the site include installing new pipelines and a lift station within and adjacent to the wastewater treatment ponds. Trenching and other ground disturbing activities would be required. No nighttime construction is proposed that would produce lighting or glare. No special-status plant species were observed within the Salinas Treatment Facility site and none are expected to occur. Therefore, no impacts to special-status plant species would occur as a result of construction activities at this site.

The Salinas Treatment Facility is located adjacent to the Salinas River where California red-legged frog is known to occur. Although no suitable upland or breeding habitat occurs within the site, construction activities may result in impacts to California red-legged frog, if utilizing the site for dispersal. This impact is considered potentially significant and Mitigation Measures BT-1b and BT-1q are identified below to reduce this impact to a less-than-significant level.

The riparian habitat and Salinas River may also support other special-status wildlife species, including western pond turtle, Coast Range newt, and two-striped garter snake. The construction activities at the Salinas Treatment Facility site are proposed on the eastern side of the wastewater ponds, over 200 feet from the riparian habitat and river. Due to the lack of habitat on the eastern side of the ponds and the distance from suitable habitat, it is unlikely that any of these wildlife species would be impacted by construction activities associated with the Proposed Project. Therefore, no impacts to these special-status wildlife species are anticipated.

The riparian habitat associated with the Salinas River provides suitable habitat for roosting special-status bat species and nesting raptors, migratory birds, or other protected avian species. Impacts to these species due to wildlife harassment and destruction or disturbance of nests are considered potentially significant and Mitigation Measures BT-1b, BT-1g, and BT-1k are identified below to reduce potential impacts to a less-than-significant level.

Reclamation Ditch Diversion / Tembladero Slough Diversion

Direct Impacts

Construction of the diversion pump station at the Reclamation Ditch Diversion site would require construction activities and placement of structures within the channel bed and bank. No nighttime construction is proposed that would produce lighting or glare. No special-status plant species were observed within the Reclamation Ditch Diversion site and none are expected to occur. No suitable habitat for special-status wildlife species occurs at the Reclamation Ditch Diversion site. Therefore, no impacts to special-status plant or wildlife species would occur as a result of construction activities associated the Reclamation Ditch Diversion site. This site contains approximately 0.05 acre of aquatic habitat, which is considered a sensitive habitat and potentially jurisdictional, and potential impacts are discussed in Impact BT-2 below.

Improvements at the Tembladero Slough Diversion site would consist of a new intake structure and new lift station within the channel bed and bank. No nighttime construction is proposed that would produce lighting or glare. No special-status plant species were observed within the Tembladero Slough Diversion site and none are expected to occur. No suitable habitat for special-status wildlife species occurs at the Tembladero Slough Diversion Site. Therefore, no impacts to special-status plant or wildlife species would occur as a result of construction activities associated the Tembladero Slough Diversion Site. This site contains approximately 0.2 acre of aquatic habitat and approximately 0.01 acre of potential coastal wetland, which are considered sensitive habitats and potentially jurisdictional, and potential impacts are discussed in Impact BT-2 below.

Indirect Construction Impacts on Affected Reaches

Focused botanical surveys were conducted below the top of bank along the Reclamation Ditch, Tembladero Slough, and Old Salinas River Channel downstream of the proposed Reclamation Ditch and Tembladero Slough Diversion Sites. No focused botanical surveys were conducted along the Old Salinas River Channel upstream of its confluence with Tembladero Slough as this area was added after the appropriate identification period. No special-status plant species were identified below the top of bank in areas surveyed and none are expected to occur.

Although there is the potential for some species of special-status plants to occur past the top of bank along the Reclamation Ditch and Tembladero Slough, no construction activities are proposed in these areas, and, therefore, construction-related direct impacts to special-status plant species and their habitats would not occur.

The Affected Reaches contain habitats which may support the following special-status wildlife species: Smith's blue butterfly, western pond turtle, California legless lizard, coast horned lizard, Coast Range newt, two-striped garter snake, Monterey dusky-footed woodrat, Salinas harvest mouse, Monterey ornate shrew, special-status bat species, tricolored blackbird, and nesting raptors, migratory birds, and other protected avian species. There are no construction activities proposed along the Affected Reaches; and, therefore, no construction-related direct impacts to special-status plant or wildlife species would occur.

Construction activities at the diversion sites may result in indirect impacts to special-status plant and wildlife species if water quality was adversely affected during construction (for example sedimentation of water and/or accidental spills of hazardous materials). This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1a below.

Blanco Drain Diversion

Construction of the Blanco Drain Diversion improvements would include minor grading, installation of a new well/diversion structure, and installation of new pipelines within the bed and bank of the Blanco Drain. No nighttime construction is proposed that would produce lighting or glare. The Blanco Drain is located adjacent to the Salinas River where California red-legged frog is known to occur and contains riparian and aquatic habitat that may support California red-legged frog, western pond turtle, Coast Range newt, two-striper garter snake, Monterey dusky-footed woodrat, Salinas harvest mouse, Monterey ornate shrew, special-status bat species, tricolored blackbird, and nesting raptors, migratory birds, or other protected avian species. Construction activities proposed at this site have the potential to significantly impact these special-status wildlife species. This impact is considered potentially significant and Mitigation Measures BT-1b, BT-1g, BT-1h, and BT-1k are identified below to reduce this impact to a less-than-significant level.

This site contains approximately 0.3 acre of aquatic habitat and approximately 0.7 acre of riparian habitat, which are considered sensitive habitats and potentially jurisdictional, and potential impacts are discussed in Impact BT-2 below.

No special-status plant species were observed within the Blanco Drain Diversion site and none are expected to occur. Therefore, no impacts to special-status plant species would occur as a result of construction activities at the Blanco Drain Diversion site.

No construction activities are proposed along the Salinas River outside of the Blanco Drain Diversion site; therefore, no direct impacts to special-status plant or wildlife species would occur along the Salinas River.

Construction activities at the Blanco Drain Diversion site may result in indirect impacts to special-status plant and wildlife species associated with the Salinas River if water quality was adversely affected by construction activities (for example sedimentation of water and/or accidental spills of hazardous materials). This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1a below.

Lake El Estero Diversion

Construction at this site would be limited to an entirely paved area of the existing pump station. No nighttime construction is proposed that would produce lighting or glare. No special-status plant or wildlife species were observed within the proposed Lake El Estero Diversion site and none are expected to occur. However, there is suitable habitat (e.g., mature trees, riparian habitat) near the diversion site that could support nesting raptors, migratory birds, and other protected avian species. Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals, or abandonment of an active nest would be considered a significant impact. If a raptor or other migratory birds (including species of special concern or Fully Protected species) were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1k identified below. No other special-status wildlife species were observed within the Lake El Estero Diversion site and none are expected to occur.

Treatment Facilities at the Regional Treatment Plant

Construction activities at the Treatment Facilities at the Regional Treatment Plant would include installation of pipelines, pumps, storage tanks, electrical equipment, and other facilities. No special-status plant species were observed within the Project Study Area during site surveys at the site and none are expected to occur. In addition, the non-native grassland at the site is subject to on-going disturbance from mowing and adjacent uses. The non-native grassland provides very low wildlife habitat at the site and no special-status wildlife species are anticipated to occur. Therefore, no impacts to special-status plant species would occur as a result of construction activities at the Treatment Facilities at the Regional Treatment Plant.

Within suitable habitat present in or adjacent to the Project Study Area associated with this project component, there is the potential for protected avian species to occur. Most of the birds observed or with the potential to occur within the Project Study Area are protected under both the Migratory Bird Treaty Act and Fish and Game Code Section 3503, and, in addition, birds may be designated as state species of special concern or Fully Protected species. Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals, or abandonment of an active nest would be considered a significant impact. If a raptor or other migratory birds (including species of special concern or Fully Protected species) were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1k identified below. No other special-status wildlife species were observed within the Project Study Area and none are expected to occur.

The Treatment Facilities at the Regional Treatment Plant would be constructed at the existing MRWPCA Regional Treatment Plant. This existing facility has exterior lighting of buildings and

grounds that are typical of an industrial facility. Existing nighttime safety lighting is provided at the facility. Construction activities could result in increased glare from nighttime construction lighting and equipment. Construction of the Treatment Facilities at the Regional Treatment Plant could occur over 24 hours over an 18 month construction period. However, nighttime lighting would be temporary and, due to the absence of sensitive biological resources in the vicinity, nighttime construction lighting would not result in impacts to biological resources.

Product Water Conveyance

Construction of the product water pipelines would occur primarily within existing roads and infrastructure easements and most segments would be installed using conventional open-trench technology; where it is not feasible or desirable to perform open-cut trenching, trenchless methods would be used. No nighttime construction is proposed that would produce lighting or glare.

RUWAP and Coastal Booster Pump Station Options

No special-status plant species were observed within the Project Study Area associated with the proposed booster stations (Product Water Conveyance: RUWAP and Coastal alignment options), and none are expected to occur.

The mature trees within and adjacent to the Project Study Area at the proposed Booster Pump Station sites provide suitable habitat for roosting special-status bat species. Impacts to these species due to wildlife harassment and destruction or disturbance of nests are considered potentially significant and Mitigation Measures BT-1b and BT-1g are identified below to reduce potential impacts to a less-than-significant level.

Within suitable habitat present in or adjacent to the Project Study Area associated with these project components, there is the potential for protected avian species to occur. Most of the birds observed or with the potential to occur adjacent to the Project Study Area are protected under both the Migratory Bird Treaty Act and Fish and Game Code Section 3503, and, in addition, birds may be designated as state species of special concern or Fully Protected species. Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals, or abandonment of an active nest would be considered a significant impact. If a raptor or other migratory birds (including species of special concern or Fully Protected species) were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1k identified below. No other special-status wildlife species were observed within the Project Study Area associated with the proposed booster stations (Product Water Conveyance: RUWAP and Coastal alignment options), and no other special-status wildlife species are expected to occur.

RUWAP Pipeline Alignment Option

Special-Status Plant Species

The construction of the RUWAP alignment option may result in impacts to sandmat manzanita (0.5 acre), Monterey ceanothus (1,341 sq. ft.), Monterey spineflower (0.1 acre) Eastwood's goldenbush (198 sq. ft.), and Kellogg's horkelia (2 sq. ft.).

Of the populations of HMP species, approximately 0.5 acre of sandmat manzanita, 2,063 sq. ft. of Monterey spineflower, and all of the populations of Monterey ceanothus and Eastwood's

goldenbush occur on the former Fort Ord. Approximately 1,088 sq. ft. of sandmat manzanita and 2,293 sq. ft. of Monterey spineflower occur outside of the former Fort Ord.

As described in the Approach to Analysis, impacts to these plant species on the former Fort Ord are considered less-than-significant because these special-status plant species are HMP species and impacts to these species are mitigated through compliance with the HMP. No take authorization is required from the CDFW. However, the HMP and BO require the identification of sensitive biological resources that may be salvaged for use in restoration activities in reserve areas. Mitigation Measure BT-4 has been identified to further reduce impacts to these species in accordance with the BO and HMP.

For the sandmat manzanita and Monterey spineflower populations that occur outside of the former Fort Ord boundaries, impacts are considered potentially significant. In addition, impacts to Kellogg's horkelia are considered potentially significant. These potentially significant impacts can be reduced to a less-than-significant level with implementation of Mitigation Measures BT-1e identified below.

Special-Status Wildlife Species

Based on the presence of suitable habitat, the construction of the Product Water Conveyance: RUWAP alignment option may result in impacts to California legless lizard, coast horned lizard, Monterey dusky-footed woodrat, Monterey ornate shrew, American badger, special-status bat species, western burrowing owl, California horned lark, white-tailed kite, and nesting avian species protected under the Migratory Bird Treaty Act and Fish and Game Code, as detailed in the following paragraphs.

Within suitable habitat, there is the potential for the following two HMP wildlife species to occur within the Project Study Area of the Product Water Conveyance: RUWAP alignment option on the former Fort Ord: the Monterey ornate shrew (i.e., within the coast live oak woodland and central maritime chaparral habitats), and California legless lizard (i.e., within the central maritime chaparral, and coast live oak woodland habitats). The impacts to the Monterey ornate shrew and California legless lizard are considered less-than-significant because impacts to these special-status wildlife species have been identified and mitigated by the HMP on development parcels at the former Fort Ord; in addition, no take authorization is required from the Service or CDFW. However, the HMP and BO require the identification of sensitive biological resources that may be salvaged for use in restoration activities in reserve areas. Due to its high metabolic rate and cryptic nature, it is unlikely that salvaging individual shrews would be appropriate or successful. Salvage of California legless lizards has been proven effective and successful, and, therefore, Mitigation Measure BT-1c has been identified to further reduce impacts to this species in accordance with the BO and HMP.

The Project Study Area of the RUWAP pipeline that occurs outside of the former Fort Ord boundaries contains suitable habitat for California legless lizard and Monterey ornate shrew (i.e., non-native grassland). The construction of the RUWAP alignment option may result in direct impacts to individuals and loss of habitat. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measures BT-1b, BT-1d, and BT-1h identified below.

The RUWAP alignment option Project Study Area contains suitable habitat for the coast horned lizard (i.e., non-native grassland and central maritime chaparral). The construction of the RUWAP alignment option may result in direct impacts to individuals and loss of habitat. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measures BT-1B and BT-1h identified below.

The Project Study Area of the RUWAP alignment option contains suitable habitat for the Monterey dusky-footed woodrat (i.e., coast live oak woodland and central maritime chaparral) and American badger (i.e., non-native grassland), and construction activities could result in direct impacts to individuals and loss of habitat. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1i and BT-1j identified below.

Removal of mature oak trees may result in direct impacts to special-status bats, if present at the time of removal. As described above, hoary bats breed inland and to the north of their overwintering locations on the coast. As a result, this species would not be breeding within the vicinity of the Project Study Area. However, maternity roosts of the pallid bat may occur. Impacts to individuals and roosting habitat are considered potentially significant that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1g identified below.

The Migratory Bird Treaty Act protects the majority of migrating birds breeding in the U.S., regardless of their official federal or state listing status under the ESA or CESA. The law applies to the disturbance or removal of active nests occupied by migratory birds during their breeding season. Most of the birds observed or with the potential to occur within the Project Study Area are protected under both the Migratory Bird Treaty Act and Fish and Game Code Section 3503. In addition, birds may be designated as state species of special concern or Fully Protected species. Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals, or abandonment of an active nest would be considered a significant impact. With the exception of the ruderal/developed areas (e.g., paved areas, buildings, roads) and active agriculture within the Project Study Area of the Product Water Conveyance: RUWAP alignment option, all habitats within the Project Study Area and vicinity (250 feet) of the RUWAP pipeline alignment provide potential nesting habitat for protected avian species. The oak woodland habitat provides suitable nesting habitat for tree-nesting raptors and migratory birds. Other ground-nesting birds may nest in non-native grassland or maritime chaparral. If a raptor or other migratory birds (including species of special concern or Fully Protected species) were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1k identified below.

Coastal Alignment Option

Special-Status Plant Species

The construction of the Product Water Conveyance: Coastal alignment option may result in impacts to sandmat manzanita (0.5 ac.), Monterey ceanothus (0.3 ac), Monterey spineflower (0.3 ac), and Kellogg's horkelia (0.1 ac).

A portion of the Project Study Area along the Coastal alignment option was not able to be surveyed for special-status plants.[17] This portion occurs from the existing Regional Treatment Plant site through Armstrong Ranch to Del Monte Boulevard. The proposed pipeline Project Study Area in this location consists of non-native grassland habitat. For the purposes of this analysis and based on botanical survey results on Armstrong Ranch along the RUWAP

[17] A portion of the Product Water Conveyance: Coastal alignment option, from existing Regional Treatment Plant site through Armstrong Ranch to Del Monte Boulevard, was not surveyed as authorization to access this area was not received.

alignment option, it is assumed that Monterey spineflower and Kellogg's horkelia are present in this location.

Of the populations of HMP species, approximately 0.1 acre of Monterey spineflower occur on the former Fort Ord. Approximately 0.2 acre of Monterey spineflower occurs outside the former Fort Ord, along with all the populations of sandmat manzanita and Monterey ceanothus.

As described in the Approach to Analysis, impacts to these plant species on the former Fort Ord are considered less-than-significant because these special-status plant species are HMP species and no take authorization is required from the USFWS or CDFW. Compliance with the HMP mitigates impacts to the species. However, the HMP and BO require the identification of sensitive biological resources that may be salvaged for use in restoration activities in reserve areas and Mitigation Measure BT-4 has been identified to further reduce impacts to these species in accordance with the BO and HMP.

For the sandmat manzanita, Monterey ceanothus, and Monterey spineflower populations that occur outside of the former Fort Ord boundaries (including at the portions of this component at Armstrong Ranch that were not surveyed), impacts are considered potentially significant. In addition, impacts to Kellogg's horkelia are considered potentially significant. These potentially significant impacts can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1f identified below.

Special-Status Wildlife Species

Based on the presence of suitable habitat, the construction of the Coastal alignment option may result in impacts to Smith's blue butterfly, western pond turtle, California legless lizard, coast horned lizard, Coast Range newt, two-striped garter snake, Monterey dusky-footed woodrat, Salinas harvest mouse, Monterey ornate shrew, American badger, special-status bat species, tricolored blackbird, western burrowing owl, California horned lark, white-tailed kite, and nesting avian species protected under the Migratory Bird Treaty Act and Fish and Game Code.

There is no suitable habitat for the two HMP wildlife species (e.g., California legless lizard and Monterey ornate shrew) within the former Fort Ord. Therefore, these species do not have the potential to occur within the portions of the Project Study Area along the Coastal alignment option on the former Fort Ord. However, the Project Study Area of the Coastal alignment option outside of the former Fort Ord boundaries contains suitable habitat for California legless lizard (i.e., non-native grassland and central coastal scrub) and Monterey ornate shrew (i.e., non-native grassland, riparian, and central coastal scrub). The construction of the Coastal alignment option may result in direct impacts to individuals and loss of habitat. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measures BT-1d and BT-1h identified below.

The Project Study Area of the Coastal alignment option contains suitable habitat (i.e., riparian habitat at Locke Paddon Lake) for the western pond turtle, Coast Range newt, two-striped garter snake, Salinas harvest mouse, tricolored blackbird, and nesting avian species protected under the Migratory Bird Treaty Act and Fish and Game Code. The construction of the Coastal alignment option may result in direct impacts to individuals and loss of habitat. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measures BT-1h, BT-1k, and BT-1p identified below.

The Project Study Area of the Coastal alignment option contains suitable habitat for the coast horned lizard (i.e., non-native grassland and central coastal scrub chaparral). The construction of the Coastal alignment option may result in direct impacts to individuals and loss of habitat.

This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1h identified below.

The Project Study Area of the Coastal alignment option contains suitable habitat for the Monterey dusky-footed woodrat (i.e., central coastal scrub) and American badger (i.e., non-native grassland), and construction activities could result in direct impacts to individuals and loss of habitat. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1i identified below.

Removal of mature oak trees may result in direct impacts to special-status bats, if present at the time of removal. As described above, hoary bats breed inland and to the north of their overwintering locations on the coast. As a result, this species would not be breeding within the vicinity of the Project Study Area. However, maternity roosts of the pallid bat may occur. Impacts to individuals and roosting habitat are considered potentially significant impacts that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1g identified below.

Most of the birds observed or with the potential to occur within the Project Study Area are protected under both the Migratory Bird Treaty Act and Fish and Game Code Section 3503, and, in addition, birds may be designated as state species of special concern or Fully Protected species. Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals, or abandonment of an active nest would be considered a significant impact. With the exception of the ruderal/developed areas (e.g., paved areas, buildings, roads) and active agriculture within the Project Study Area of the Coastal Alignment Option, all habitats within the alignment provide potential nesting habitat for protected avian species. The oak woodland habitat provides suitable nesting habitat for tree-nesting raptors and migratory birds. Other ground-nesting birds may nest in non-native grassland or maritime chaparral. If a raptor or other migratory birds (including species of special concern or Fully Protected species) were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. This is a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1k identified below.

The construction of the Coastal alignment option may result in impacts to approximately 0.4 acre of habitat for Smith's blue butterfly, including direct impacts to individuals and loss of habitat. This analysis assumes that Smith's blue butterfly is present within identified suitable habitat areas (i.e., areas containing the obligate host plants for the species). This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of the Mitigation Measure BT-1o identified below.

A portion of the Project Study Area (from the existing Regional Treatment Plant site through Armstrong Ranch to Del Monte Boulevard) of the Coastal Alignment option was not surveyed for wildlife or its habitat.[18] Therefore, it also is assumed to contain suitable habitat for the California legless lizard, coast horned lizard, Monterey ornate shrew, American badger, western burrowing owl, California horned lark, and nesting avian species protected under the Migratory Bird Treaty Act and Fish and Game Code. Therefore, as described above, the construction of this portion of the Coastal alignment option may result in impacts to these species, including loss of individuals and habitat. These are considered potentially significant impacts that can be reduced to a less-than-significant level with implementation of the Mitigation Measure BT-1f identified below.

[18] Authorization was not received to survey this area.

Injection Well Facilities

Installation of the proposed injection wells typically would follow a three-step process: drilling and logging, installation, and testing and equipping. The construction of the back-flush pipeline would involve excavating pipe trenches, retaining the spoilage on site, importing and installing bedding material, and laying the pipe, backfilling and compacting the trench.

Special-Status Plant Species

The construction of the Injection Well Facilities may result in impacts to sandmat manzanita (8.9 ac), Monterey ceanothus (0.3 ac), Monterey spineflower (0.3 ac), Eastwood's goldenbush (0.1 ac), and Kellogg's horkelia (2 sq. ft.). This entire Proposed Project component site is located within the former Fort Ord. Therefore, as described in the Approach to Analysis, impacts to sandmat manzanita, Monterey spineflower, and Eastwood's goldenbush on the former Fort Ord are considered less-than-significant because these special-status plant species are HMP species and no additional take authorization is required from the CDFW. Compliance with the HMP mitigates impacts to these species. However, the HMP and BO require the identification of sensitive biological resources that may be salvaged for use in restoration activities in reserve areas and Mitigation Measure BT-4 has been identified to further reduce impacts to these species in accordance with the BO and HMP.

A portion of the Injection Well Facilities site was added to the Project Study Area after the appropriate identification period and, therefore, was not able to be surveyed for special-status plants. The additional area added to the Project Study area consists of central maritime chaparral and ruderal/developed/active agriculture habitat.

For the purposes of this analysis and based on botanical survey results adjacent to the new area, it is assumed that sandmat manzanita, Monterey ceanothus, Monterey spineflower, Eastwood's goldenbush, and Kellogg's horkelia are present in this location. In addition, there is a high likelihood sand gilia and seaside bird's beak, both listed species under the CESA, may occur in this location.

Impacts to Kellogg's horkelia are considered potentially significant. These potentially significant impacts can be reduced to a less-than-significant level with implementation of the Mitigation Measures BT-1f and BT-1e identified below.

Special Status Wildlife Species

Based on the presence of suitable habitat, the construction of the Injection Well Facilities may result in impacts to California legless lizard, coast horned lizard, Monterey dusky-footed woodrat, Monterey ornate shrew, special-status bat species, and nesting raptors, migratory birds, and other avian species protected under the Migratory Bird Treaty Act and Fish and Game Code.

Within suitable habitat, there is the potential for the following two HMP wildlife species to occur within the Project Study Area of the Injection Well Facilities on the former Fort Ord: the Monterey ornate shrew (i.e., within the coast live oak woodland and central maritime chaparral habitats); and California legless lizard (i.e., within the central maritime chaparral and coast live oak woodland habitats). The impacts to the Monterey ornate shrew and California legless lizard are considered less-than-significant because these special-status wildlife species are HMP species and no take authorization is required from the Service or CDFW. Compliance with the HMP mitigates impacts to these species. However, the HMP and BO require the identification of sensitive biological resources that may be salvaged for use in restoration activities in reserve areas. Due to its high metabolic rate and cryptic nature, it is unlikely that salvaging individual shrews would be appropriate or successful. Salvage of California legless lizards has been

proven effective and successful, and, therefore, Mitigation Measure BT-1d has been identified to further reduce impacts to this species in accordance with the BO and HMP.

The Injection Well Facilities site contains suitable habitat for the coast horned lizard (i.e., central maritime chaparral). The construction of the Injection Well Facilities site may result in direct impacts to individuals and loss of habitat. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of the Mitigation Measure BT-1h identified below.

The Injection Well Facilities site contains suitable habitat for the Monterey dusky-footed woodrat (i.e., central maritime chaparral and coast live oak woodland), and construction activities could result in direct impacts to individuals and loss of habitat. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1i identified below.

Removal of mature oak trees may result in direct impacts to special-status bats, if present at the time of removal. As described above, hoary bats breed inland and to the north of their overwintering locations on the coast. As a result, this species would not be breeding within the vicinity of the Project Study Area. However, maternity roosts of the pallid bat may occur. Impacts to individuals and roosting habitat are considered potentially significant impacts that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1g identified below.

Most of the birds observed or with the potential to occur within the Project Study Area are protected under both the Migratory Bird Treaty Act and Fish and Game Code Section 3503, and some of the birds that that the potential to occur are designated as state species of special concern or Fully Protected species. Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals, or abandonment of an active nest would be considered a significant impact. With the exception of the ruderal/developed areas (e.g., paved areas, buildings, roads), all habitats within the Injection Well Facilities site provide potential nesting habitat for protected avian species. The oak woodland habitat provides suitable nesting habitat for tree-nesting raptors and migratory birds. Other ground-nesting birds may nest in non-native grassland or maritime chaparral. If a raptor or other migratory birds (including species of special concern or Fully Protected species) were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1k identified below.

Based on similar habitat type and review of aerial photography the portion of the Injection Well Facilities site that was added to the Project Study Area after site surveys, is assumed to contain suitable habitat for the California legless lizard, coast horned lizard, Monterey dusky-footed woodrat, special-status bat species, and nesting raptors, migratory birds, and other avian species protected under the Migratory Bird Treaty Act and Fish and Game Code. Therefore, the construction in this additional area of the Injection Well Facilities site may result in impacts to these species, including loss of individuals and habitat. These are considered potentially significant impacts that can be reduced to a less-than-significant level with implementation of Mitigation Measures BT-1d, BT-1g, BT-1h, BT-1i, and BT-1k identified below.

At the Injection Well Facilities site, nighttime construction activities would introduce a source of light and glare that potentially would be visible to nearby residents and would shine on adjacent open space areas. Therefore, nighttime construction activities at the Injection Well Facilities site

may result in impacts to wildlife species due to artificial influence on species diel patterns.[19] This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1m identified below.

CalAm Distribution System Pipelines

The construction of CalAm Distribution Pipelines Transfer and Monterey Pipelines would involve similar activities as those described for the Project Water Conveyance Pipeline.

The construction of the CalAm Distribution Pipelines would typically take place during daylight hours. Although nighttime lighting may be used in construction, the pipeline construction would occur within the urban and built-up landscape unit, and, therefore, would not make a significant contribution to the existing amount of light and glare, especially given the temporary nature of construction. Therefore, potential impacts to wildlife species as a result of nighttime construction lighting is considered less-than-significant.

Transfer Pipeline

The Transfer Pipeline contains developed habitat and construction would occur in disturbed, developed areas within existing right-of-ways and easements. No special-status plant species were observed within the Project Study Area of the Transfer Pipeline and none are expected to occur. Therefore, no impacts to special-status plant species would occur as a result of construction activities associated with the Transfer Pipeline.

Within suitable habitat within and adjacent to the Project Study Area of the Transfer Pipeline, there is the potential for protected avian species to occur. Most of the birds observed or with the potential to occur adjacent to the Project Study Area are protected under both the Migratory Bird Treaty Act and Fish and Game Code Section 3503, and, in addition, birds may be designated as state species of special concern or Fully Protected species. Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals, or abandonment of an active nest would be considered a significant impact. If a raptor or other migratory birds (including species of special concern or Fully Protected species) were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1k identified below.

No suitable habitat for other special-status wildlife species occurs within the Project Study Area of the Transfer Pipeline. Therefore, no impacts to other special-status wildlife species would occur as a result of construction activities associated with the Transfer Pipeline.

The pipeline installation is expected to take place during daytime hours. Therefore, nighttime construction lighting would not result in impacts to biological resources.

Monterey Pipeline

The construction of the Monterey Pipeline may result in impacts to Monterey ceanothus (38 sq. ft.) and coast wallflower (337 sq. ft.). These potentially significant impacts can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1e identified below.

Based on the presence of suitable habitat, the construction of the Monterey Pipeline may result in impacts to Monarch butterfly, Smith's blue butterfly, western pond turtle, California legless lizard, coast horned lizard, Coast Range newt, two-striped garter snake, Salinas harvest mouse,

[19] Diel refers to a 24 hour time period.

Monterey ornate shrew, western burrowing owl, special-status bat species, and nesting raptors, migratory birds, and other avian species protected under the Migratory Bird Treaty Act and Fish and Game Code, as further described in the following paragraphs:

The construction of the Monterey Pipeline would result in significant impacts to Monarch butterflies, including direct impacts to individuals and loss of habitat, assuming Monarch butterflies are present within the eucalyptus grove along Del Monte Boulevard adjacent to the Naval Postgraduate School that are within the Project Study Area. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1o identified below.

The construction of the Monterey Pipeline would result in significant impacts to approximately 0.1 acre of habitat for Smith's blue butterfly, including direct impacts to individuals and loss of habitat, assuming that Smith's blue butterfly is present within identified habitat areas (i.e., coast and dune buckwheat identified within the Project Study Area). This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1n identified below.

The Project Study Area of the Monterey Pipeline contains suitable habitat for California legless lizards (i.e., central dune scrub). The construction of the Monterey Pipeline may result in direct impacts to individuals and loss of habitat. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1d identified below.

Although the Project Study Area contains suitable habitat (i.e., riparian habitat at Roberts Lake) for the Monterey ornate shrew, western pond turtle, Coast Range newt, two-striped garter snake, Salinas harvest mouse, special-status bat species, and nesting raptors, migratory birds, and other avian species protected under the Migratory Bird Treaty Act and Fish and Game Code; the construction of the pipeline is proposed outside of the riparian habitat and would be attached to the existing bridge. Therefore, no direct impacts to Monterey ornate shrew, western pond turtle, Coast Range newt, two-striped garter snake, Salinas harvest mouse, would occur as a result of the construction of the Monterey Pipeline near Roberts Lake. However, there is the potential that construction activities may result in indirect impacts to these species' habitats (e.g., impacts to water quality). In addition, construction adjacent to potential roosting and nesting habitat may result in impacts to special-status bats species and nesting avian species. These are considered potentially significant impacts that can be reduced to a less-than-significant level with implementation of Mitigation Measures BT-1a, BT-1b, BT-1g, and BT-1k identified below.

The Monterey Pipeline Alignment contains suitable habitat for the coast horned lizard (i.e., central dune scrub). The construction of the Monterey Pipeline may result in direct impacts to individuals and loss of habitat. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of the Mitigation Measure BT-1h identified below.

Most of the birds observed or with the potential to occur within the Project Study Area are protected under both the Migratory Bird Treaty Act and Fish and Game Code Section 3503, and, in addition, birds may be designated as state species of special concern or Fully Protected species. Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals or abandonment of an active nest would be considered a significant impact. With the exception of the ruderal/developed areas (e.g., paved areas, buildings, roads), all habitats within the Monterey (but not transfer) pipeline alignment provide potential nesting habitat for protected avian species. The oak woodland habitat provides suitable nesting habitat for tree-nesting

raptors and migratory birds. Other ground-nesting birds may nest in non-native grassland or maritime chaparral. If a raptor or other migratory birds (including species of special concern or Fully Protected species) were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measures BT-1k and BT-1l identified below.

At the Monterey Pipeline site, nighttime construction activities would introduce a source of light and glare that potentially would be visible to nearby residents and would shine on adjacent open space areas. Therefore, nighttime construction activities at the Monterey Pipeline may result in impacts to wildlife species. This is considered a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1m identified below.

Impact Conclusion

The Proposed Project construction could result in impacts to special status species due to construction activities at all the Proposed Project component sites. Impacts to special status species would be considered a significant impact. Implementation of Mitigation Measures BT-1a through BT- 1q, as specified for each component, would reduce potentially significant impacts to special status species during construction to a less-than-significant level.

Mitigation Measures

The following mitigation measures apply to the Proposed Project components identified in the title of each measure. Implementation of the following mitigation measures would reduce Impact BT-1 to a less-than-significant level.

Mitigation Measure BT-1a: Implement Construction Best Management Practices. (Applies to All Proposed Project Components)

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:

1. 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.
2. 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 protective fencing remains intact.

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.

Mitigation Measure BT-1b: Implement Construction-Phase Monitoring. (Applies to Salinas Pump Station, Salinas Treatment Facility, Blanco Drain Diversion, Project Water Conveyance: RUWAP and Coastal Pipeline Alignment Options, Injection Well Facilities, and CalAm Distribution System: Monterey Pipeline)

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.

Mitigation Measure BT-1c: Implement Non-Native, Invasive Species Controls. (Applies to All Proposed Project Components)

The following measures shall be implemented to reduce the introduction and spread of non-native, invasive species:

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.
4. All non-native, invasive plant species shall be removed from disturbed areas prior to replanting.

Mitigation Measure BT-1d: Conduct Pre-Construction Surveys for California Legless Lizard. (Applies to the Product Water Conveyance: RUWAP and Coastal Alignment Options, Injection Well Facilities, and CalAm Distribution System: Monterey Pipeline)

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:

- *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 pre-construction 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.
- 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.

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. (Applies to Product Water Conveyance: RUWAP and Coastal Alignment Options, Injection Well Facilities, and CalAm Distribution System: Monterey Pipeline; does not apply to HMP species within the former Fort Ord.)

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:

a. 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.

b. 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.

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.

Mitigation Measure BT-1f: Conduct Pre-Construction Protocol-Level Botanical Surveys within the Product Water Conveyance: Coastal Alignment Option between Del Monte Boulevard and the Regional Treatment Plant site on Armstrong Ranch; and the remaining portion of the Project Study Area within the Injection Well Facilities site. (Applies to Product Water Conveyance: Coastal Alignment Option and non-HMP species at 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 Project Survey Area of the Product Water Conveyance Pipeline: Coastal Alignment Option between Del Monte Boulevard and the Regional Treatment Plant site on Armstrong Ranch and the portion of 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:

- 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:
    - 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 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.
    - 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.

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.

Mitigation Measure BT-1g: Conduct Pre-Construction Surveys for Special-Status Bats. (Applies to Salinas Pump Station, Salinas Treatment Facility, Blanco Drain Diversion, Product Water Conveyance: RUWAP and Coastal Alignment Options and Booster Stations, Injection Well Facilities, and CalAm Distribution System: Monterey Pipeline)

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:

- 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 Proposed 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.

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. (Applies to Blanco Drain Diversion, Product Water Conveyance: RUWAP and Coastal Alignment Options, Injection Well Facilities, and CalAm Distribution System: Monterey Pipeline)

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.

Mitigation Measure BT-1i: Conduct Pre-Construction Surveys for Monterey Dusky-Footed Woodrat. (Applies to Blanco Drain Diversion, Product Water Conveyance: RUWAP and Coastal Alignment Options, and Injection Well Facilities)

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.

Mitigation Measure BT-1j: Conduct Pre-Construction Surveys for American Badger. (Applies to Product Water Conveyance: RUWAP and Coastal Alignment Options)

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:

- 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 re-using 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.

Mitigation Measure BT-1k: Conduct Pre-Construction Surveys for Protected Avian Species, including, but not limited to, white-tailed kite and California horned lark. (Applies to All Components)

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.

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.

If active raptor or other protected avian species nests are identified during the pre-construction 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.

Mitigation Measure BT-1l: Conduct Pre-Construction Surveys for Burrowing Owl. (Applies to Product Water Conveyance: RUWAP and Coastal Alignment Options and CalAm Distribution System: Monterey Pipeline)

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. 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.

Mitigation Measure BT-1m: Minimize effects of nighttime construction lighting. (Applies to Injection Well Facilities and CalAm Distribution System: Monterey Pipeline)

Nighttime construction lighting shall be focused and downward directed to preclude night illumination of the adjacent open space area.

Mitigation Measure BT-1n: Mitigate Impacts to Smith's blue butterfly. (Applies to Product Water Conveyance: Coastal Alignment Option and CalAm Distribution System: Monterey Pipeline)

Removal or damage to obligate host plant species (coast and dune buckwheat) shall be avoided through project design and modification to the extent feasible while taking into consideration other site and engineering constraints, unless protocol-level surveys by an approved biologist determine the species is not present and the USFWS concurs with this finding.

If avoidance is not possible and protocol-level surveys are not conducted, or if protocol-level surveys have a positive presence finding, Section 7 formal consultation under the federal ESA with the USFWS would be required due to the project's federal nexus (e.g., federal funding) and the potential impacts to federally listed species that may result from the Proposed Project. If the project construction activities would be likely to adversely affect the species, a Section 7 consultation would be initiated, and the USFWS would issue a Biological Opinion for the project. The Biological Opinion would require measures to reduce impacts to this species such that jeopardy to the species is avoided. Measures shall include, but would not be limited to, restoration and/or preservation at a 3:1 ratio of impacted habitat and buckwheat plant and/or seed salvage prior to ground disturbing activities. Any measures required by the Biological Opinion shall be incorporated into the Proposed Project's Mitigation Monitoring and Reporting Program and implemented in accordance with the Biological Opinion.

Mitigation Measure BT-1o: Avoid and Minimize Impacts to Monarch butterfly. (Applies to CalAm Distribution System: Monterey Pipeline)

If any eucalyptus trees must be removed during the monarch butterfly winter roosting season (generally October – February), the site containing the trees shall be surveyed by a qualified biologist to ensure that a roosting colony is not present prior to eucalyptus tree removal. Since timing of monarch migration on the coast varies year to year, the survey shall be conducted at a time to coincide with monarch roosting activity on the coast for that particular year as determined by a qualified biologist. Information on monarch roosting activity must be verified with a qualified biologist prior to conducting the survey. If a roosting colony is not detected, tree removal may commence and no further surveys are warranted. However, if a roosting colony is detected, trees shall not be removed until the winter roosting season has concluded (i.e., no more monarchs have been observed in the general area or using the trees).

Mitigation Measure BT-1p: Avoid and Minimize Impacts to Western Pond Turtle. (Applies to Blanco Drain Diversion and Product Water Conveyance: Coastal Alignment Option)

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.

Mitigation Measure BT-1q: Avoid and Minimize Impacts to California Red-Legged Frog. (Applies to Salinas Treatment Facility and Blanco Drain Diversion)

The following measures for avoidance and minimization of adverse impacts to California Red-Legged Frog (CRLF) during construction of the Proposed 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.

- 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 on-site 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 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.

- 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.

Impact BT-2: Construction Impacts to Sensitive Habitats. Proposed Project construction may adversely affect sensitive habitats (including riparian, wetlands, and/or other sensitive natural communities) within the Project Study Area. (Criteria b and c) (Less than Significant with Mitigation)

Several sensitive habitats were identified within the Project Study Area (**Table 4.5-5**; **Attachment 8 of Appendix H; Appendix I**). Construction of the Proposed Project may result in direct and indirect impacts to sensitive habitats (defined herein to include any riparian, federally protected wetlands as defined by Section 404 of the Clean Water Act, or other sensitive natural communities) within the Project Study Area with the exception of the component specific study areas of the Salinas Pump Station, Treatment Facilities at the Regional Treatment Plant, and CalAm Distribution System: Transfer Pipeline. Impacts to sensitive habitats may include direct and indirect impacts associated with construction activities that could result in the direct loss of habitat, soil compaction, root damage, erosion, and introduction and spread of non-native, invasive species. These are considered potentially significant impacts that can be reduced to a less-than-significant level with implementation of the mitigation measures identified below.

Some of these habitats may be considered an ESHA by the CCC or local authority where they occur in the coastal zone. In addition, under Section 30107.5 of the CCA, an "environmentally sensitive area" is any area in which plant or animal life or their habitat are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Therefore, the CCC or local authority may designate additional habitat areas within the Project Study Area as ESHA if CCC or local authority determines that it meets this definition. The only parts of the Project Study Area that are within the Coastal Zone (see **Section 4.12, Land Use**, **Figures 1-5**) are: 1) portions of the Product Water Conveyance: Coastal alignment option; 2) the Tembladero Slough Diversion site; 3) the Affected Reaches of the Old Salinas River Channel and Tembladero Slough; and 4) portions of the CalAm Distribution System: Monterey Pipeline.[20]

The following provides analysis of impacts to sensitive habitat by Proposed Project component.

Source Water Diversion and Storage Sites

Salinas Pump Station

No sensitive habitats occur at the Salinas Pump Station site, and, therefore, no construction impacts to sensitive habitats would occur.

Salinas Treatment Facility

Approximately 35 acres of riparian habitat occurs within the Project Study Area at the Salinas Treatment Facility (Attachment 8 of **Appendix H**). Construction activities are proposed on the east side of the wastewater treatment ponds and not within or directly adjacent to the riparian habitat. Therefore, the Proposed Project would not result in impacts to sensitive habitat at this component site.

[20] Components of the Proposed Project fall within the following certified LCPs: North Monterey County LCP, City of Marina LCP, Sand City LCP, and City of Seaside LCP. A portion of the Monterey Pipeline falls within the City of Monterey; however, the City of Monterey does not have a certified LCP at this time and permits must be issued by the Coastal Commission.

Reclamation Ditch Diversion and Affected Reaches

Approximately 0.05 acre of other waters of the U.S., potentially under the jurisdiction of the USACOE, occurs within the Project Study Area at the Reclamation Ditch Diversion site (**Appendix I**). Construction activities would include the installation of permanent wet well/diversion structure and pipeline, a portion of which would be located within the unvegetated Reclamation Ditch banks and channel below ordinary high water. This analysis assumes that construction of the diversion facility may result in up to 0.5 acre of permanent impacts to other waters of the U.S.; however, the facility may be designed to impact less. Although the site is highly disturbed, indirect water quality impacts affecting sensitive habitats at the site and within downstream reaches of the Project Study Area, such as erosion and sedimentation, resulting from construction activities may also occur due to earth moving/ground disturbance at this site. This is considered potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1a.

Sensitive habitats were identified within the three Affected Reaches of this component (Reclamation Ditch, Tembladero Slough, and Old Salinas River Channel) downstream of the Project Study Area for the Reclamation Ditch Diversion site (**Attachment 8 of Appendix H; Appendix I**). No construction activities are proposed within the Affected Reaches and, therefore, no direct impacts to sensitive habitats would occur within the Affected Reaches. However, construction activities at the diversion sites may result in indirect impacts to water quality in the Affected Reaches. This is considered potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1a.

Table 4.5-9
Summary of Construction Impacts to Affected Reaches below the Reclamation Ditch Diversion

Impact Title	Affected Reaches		
	Reclamation Ditch	Tembladero Slough	Old Salinas River Channel
BT-1: Construction Impacts to Special-Status Species and Habitat	LSM	LSM	LSM
BT-2: Construction Impacts to Riparian, Federally Protected Wetlands as defined by Section 404 of the Clean Water Act, or Other Sensitive Natural Community.	LSM	LSM	LSM
BT-3: Construction Impacts to Movement of Native Wildlife and Native Wildlife Nursery Sites.	LS	LS	LS
BT-4: Construction Conflicts with Local Policies, Ordinances, or approved Habitat Conservation Plan.	LS	LS	LS

NI - No Impact
LS - Less than Significant
LSM - Less than Significant with Mitigation
SU - Significant Unavoidable

Tembladero Slough Diversion and Affected Reaches

Approximately 0.2 acre of other waters of the U.S., potentially under the jurisdiction of the USACOE, and 0.01 acre of coastal wetlands potentially under the jurisdiction of the County under the CCA occur within the Project Study Area at the Tembladero Slough Diversion site (Appendix I, page 13). Construction activities include the installation of new wet well/diversion structure and pipeline, a portion of which would be located within the unvegetated Tembladero Slough banks and channel below ordinary high water. This analysis assumes that construction of the diversion facility may result in up to 0.2 acre of permanent impacts to other waters of the U.S. and 0.01 acre of coastal wetlands potentially under the jurisdiction of the County under the CCA; however, the facility may be designed to impact less area. Although the site is highly disturbed, indirect water quality impacts affecting sensitive habitat at the site and within downstream reaches of the Project Study Area, such as erosion and sedimentation, resulting from construction activities may also occur at this site. Impacts to other waters of the U.S. are considered potentially significant impact and can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1a. Impacts to wetlands as defined by the USACOE and/or the CCC are considered potentially significant impact that can be reduced to a less-than-significant level with implementation of the Mitigation Measure BT-2a identified below.

Sensitive habitats were identified within the two Affected Reaches of this component (i.e., Tembladero Slough and Old Salinas River Channel) downstream of the Project Study Area for the Tembladero Slough Diversion site (Attachment 8 of Appendix H; Appendix I). No construction activities are proposed within the Affected Reaches and, therefore, no direct impacts to sensitive habitats would occur within the Affected Reaches. However, construction activities at the diversion sites may result in indirect impacts to water quality in the Affected Reaches. This is considered potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1a.

Table 4.5-10
Summary of Construction Impacts to Affected Reaches below the Tembladero Slough Diversion

Impact Title	Affected Reaches	
	Tembladero Slough	Old Salinas River Channel
BT-1: Construction Impacts to Special-Status Species and Habitat	LSM	LSM
BT-2: Construction Impacts to Riparian, Federally Protected Wetlands as defined by Section 404 of the Clean Water Act, or Other Sensitive Natural Community.	LSM	LSM
BT-3: Construction Impacts to Movement of Native Wildlife and Native Wildlife Nursery Sites.	LS	LS
BT-4: Construction Conflicts with Local Policies, Ordinances, or approved Habitat Conservation Plan.	LS	LS
NI - No Impact *LS - Less than Significant* *LSM - Less than Significant with Mitigation* *SU - Significant Unavoidable*		

Blanco Drain Diversion Site

Approximately 0.3 acre of other waters potentially under the jurisdiction of the USACOE (**Appendix I**), and 0.7 acre of riparian habitat (arroyo willow thickets) (Attachment 8 of **Appendix H**) exist within the Project Study Area at the Blanco Drain Diversion site.

Construction activities include the installation of a new wet well/diversion structure, new force main and gravity pipelines, a portion of which would be located within the Blanco Drain banks and channel bottom and the riparian habitat adjacent to the Salinas River. The pipeline would be constructed under the Salinas River; however, excavation pits for constructing the pipeline under the river would result in impacts to the riparian habitat.

This analysis assumes that construction of the diversion facility may result in up to 0.3 acre of permanent impacts to other waters of the U.S. and 0.7 acre of riparian habitat potentially under the jurisdiction of the CDFW; however, the facility may be designed to impact less. In addition, indirect water quality impacts, such as erosion and sedimentation, resulting from construction activities may also occur at this site. Construction of facilities and/or pipelines in the vicinity of the Salinas River may require a construction methodology referred to as "horizontal directional drilling" underneath the Salinas River channel. Horizontal directional drilling is a trenchless technology where a drill bit fitted with a transmitter is guided from the drilling machine. The drill bit uses a fluid "mud" to lubricate, loosen and carry the drilled soil from the hole. The intent of this design is to stay far enough below the river bottom to avoid having the "mud" find a fissure in the soil, which would create a connection to the river above (called a "frack-out"). If a frack-out occurs, the mud, which is a highly caustic material, could spill into the aquatic resource and indirectly impact species dependent upon the resource. The development of a frack-out plan, which would include spill prevention, containment, and clean-up methodology in the event of a frack out, is included in Mitigation Measure BT-2c below to reduce this impact to less-than-significant. Impacts to other waters of the U.S. are considered potentially significant impact and can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1a. Impacts to riparian habitat are considered potentially significant impact that can be reduced to a less-than-significant level with implementation of the Mitigation Measure BT-2a identified below.

Sensitive habitats may be present along the Salinas River downstream of the Project Study Area at the Blanco Drain Diversion site. No construction activities are proposed within the Salinas River downstream of the Blanco Drain Diversion site and, therefore, no direct impacts to sensitive habitats would occur to sensitive habitat along the downstream reach of the Salinas River. However, construction activities at the Blanco Drain Diversion site may result in indirect impacts to water quality in the Salinas River. This is considered potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1a.

Lake El Estero Diversion Site

Although the Project Study Area includes the entire Lake El Estero, which contains aquatic habitat and emergent wetland habitat, no construction activities are proposed within the aquatic habitat or emergent wetland habitat. Construction activities would occur within the existing pump station box culvert and on paved areas adjacent to Lake El Estero would be conducted such that no impacts to sensitive habitats would occur.

Treatment Facilities at Regional Treatment Plant

No sensitive habitats occur at the Project Study Area for the Treatment Facilities at the Regional Treatment Plant, and, therefore, no construction impacts to sensitive habitats would occur.

Product Water Conveyance Facilities

No sensitive habitats were observed within the Project Study Area associated with the proposed booster stations (RUWAP and Coastal Pipeline alignment options), and none are expected to occur. Therefore, no impacts to sensitive habitats would occur as a result of construction activities associated with either booster station. Therefore, the following impact discussion for the Product Water Conveyance: RUWAP and Coastal pipeline alignment options refers to construction impacts associated with the Proposed Project pipelines only.

RUWAP Alignment Option

Approximately two acres of central maritime chaparral (brittle leaf-wooly leaf manzanita chaparral) is present within the Project Study Area along the Product Water Conveyance: RUWAP alignment option (Attachment 8 of **Appendix H**). This habitat type is considered a sensitive habitat by CDFW. This habitat is located within the former Fort Ord and outside of the coastal zone. As discussed in the Approach to Analysis, impacts to sensitive central maritime chaparral habitat are analyzed and addressed in the HMP and, therefore, impacts to this habitat are also considered mitigated through the implementation of the HMP. Therefore, impacts to central maritime chaparral along the Product Water Conveyance: RUWAP alignment option are considered less-than-significant and no additional mitigation measures are required.

No additional sensitive habitats identified occur within the Project Study Area for the Product Water Conveyance: RUWAP alignment option.

Coastal Alignment Option

Riparian habitat (arroyo willow thickets) is present within the Project Study Area at Locke Paddon Lake along the Product Water Conveyance: Coastal Pipeline alignment option (approximately 0.6 acre) (Attachment 8 of **Appendix H**). This habitat type is considered a sensitive habitat by CDFW and is regulated under Sections 1600-1616 of the Fish and Game Code. Approximately 0.3 acre of wetlands potentially under USACOE jurisdiction was identified associated with the riparian habitat (**Appendix I**). In addition, the entire 0.6 acre of riparian habitat meet the CCA definition of wetlands and may be under the jurisdiction of the City of Marina under the CCA. Impacts to this sensitive habitat are considered potentially significant impact that can be reduced to a less-than-significant level with implementation of the Mitigation Measure BT-2a identified below.

Injection Well Facilities

The construction of the Injection Well Facilities may result in impacts to central maritime chaparral (approximately 63 acres) (Attachment 8 of **Appendix H**). This habitat type is considered a sensitive habitat by CDFW. This entire Proposed Project component site is located within the former Fort Ord and outside of the coastal zone. As described in the Approach to Analysis, impacts to sensitive central maritime chaparral habitat are analyzed and addressed in the HMP and, therefore, impacts to this habitat are also considered mitigated through the implementation of the HMP. Therefore, impacts are considered less-than-significant and no additional mitigation measures are required.

CalAm Distribution System Pipelines

Transfer Pipeline

No sensitive habitats were observed within the Project Study Area associated with the Transfer Pipeline; therefore, no construction impacts to sensitive habitats would occur.

Monterey Pipeline

Riparian (arroyo willow thickets) and aquatic habitats are present at Roberts Lake within the Project Study Area associated with the Monterey Pipeline (approximately 0.8 acre total) (Attachment 8 of **Appendix H**). However, the construction of the pipeline is proposed outside of the riparian and aquatic habitats (i.e., by attaching it to the existing bridge). Therefore, no direct impacts to these habitats would occur as a result of the construction of the Monterey Pipeline. Potential indirect impacts to water quality in this area would be mitigated through implementation of Mitigation Measure BT-1a.

Central dune scrub (silver dune lupine – mock heather scrub) is present within the Project Study Area of the Monterey Pipeline (approximately 3 acres) (Attachment 8 of **Appendix H**). This habitat is considered a sensitive habitat by CDFW, located within the Coastal Zone, and supports habitat for the Smith's blue butterfly. Potential construction impacts to central dune scrub habitat are considered potentially significant which can be reduced to a less-than-significant level with implementation of the Mitigation Measure BT-2b identified below.

A eucalyptus grove is present within the Project Study Area along the Monterey Pipeline (approximately two acres) (Attachment 8 of **Appendix H**). This habitat type is not considered a sensitive habitat by the CDFW. However, this area is located within the Coastal Zone and provides habitat for the Monarch butterfly. Therefore, this habitat may be considered ESHA. Potential construction impacts to the eucalyptus grove habitat are considered potentially significant which can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-1o.

Impact Conclusion

The Proposed Project construction could result in impacts to sensitive habitat due to construction activities at various project component sites. For components located within former Fort Ord, impacts to sensitive habitat have been analyzed and addressed in the HMP, therefore impacts are considered less-than-significant. Implementation of Mitigation Measures BT-2a through BT- 2c, as specified for components located outside of former Fort Ord where sensitive habitat occurs, would reduce potentially significant impacts to sensitive habitat during construction to a less-than-significant level.

Mitigation Measures

The following mitigation measures apply to the Proposed Project components identified. Implementation of Mitigation Measure BT-1a and the following mitigation measures would reduce Impact BT-2 to a less-than-significant level.

Mitigation Measure BT-2a: Avoidance and Minimization of Impacts to Riparian Habitat and Wetland Habitats. (Applies to Tembladero Slough Diversion, Blanco Drain Diversion, and Product Water Conveyance: Coastal Alignment Option.)

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:

- Place construction fencing around riparian and wetland habitat 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.

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:

- Impacted riparian and wetland habitat shall be mitigated at a 1:1 replacement-to-loss ratio through restoration and/or preservation. The final mitigation amounts shall be determined during the design phase but cannot be less than 1:1. 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.

Mitigation Measure BT-2b: Avoidance and Minimization of Impacts to Central Dune Scrub Habitat. (Applies to CalAm Distribution System: Monterey Pipeline)

When designing the Monterey Pipeline, the project proponents shall site and design project features to avoid impacts to the central dune scrub habitat shown in Attachment 8 of **Appendix H**, including direct habitat removal, 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:

- Place construction fencing around central dune scrub habitat 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 central dune scrub habitat. Light sources shall not illuminate central dune scrub habitat areas or cause glare.

If full avoidance is not possible and a portion or all of the central dune scrub habitat would be impacted, the following minimization measures shall be implemented:

- Approximately 2.7 acres of central dune scrub habitat could be impacted by the project. Impacted central dune scrub habitat shall be mitigated at a 1:1 replacement-to-loss ratio through restoration and/or preservation. The final mitigation amounts shall be determined during the design phase but cannot be less than 1:1. It is expected that the mitigation can occur onsite or within the immediate vicinity. A Habitat Mitigation and Monitoring Plan (HMMP) shall be prepared by a qualified biologist to mitigate for impacts to central dune scrub habitat. The HMMP shall outline the details of a central dune scrub 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 if success criteria are not met, and funding assurances.

Mitigation Measure BT-2c: Avoidance and Minimization of Construction Impacts Resulting from Horizontal Directional Drilling under the Salinas River (Applies to Blanco Drain Diversion)

The project proponents in coordination with the contractor shall prepare and implement a Frack-Out Plan to avoid or reduce accidental impacts resulting from horizontal directional drilling beneath the Salinas River. The Frack-Out Plan shall address spill prevention, containment, and clean-up methodology in the event of a frack out.

Impact BT-3: <u>Construction Impacts to Movement of Native Wildlife and Native Wildlife Nursery Sites.</u> Proposed Project construction would not adversely affect native wildlife corridors and wildlife nursery sites. (Criterion d) (Less than Significant)

All Proposed Project Components

The following Proposed Project component sites are located within identified, documented wildlife corridors or native wildlife nursery sites: Tembladero Slough Diversion (Tembladero Slough), Blanco Drain Diversion (Salinas River), and CalAm Distribution System: Monterey Pipeline (potential monarch butterfly habitat located along Del Monte boulevard near the Naval Postgraduate School). The proposed construction activities would temporarily discourage wildlife from using the Project Study Area within and in the vicinity of each Proposed Project component site. However, construction activities along the Tembladero Slough, Salinas River, and monarch butterfly habitat would not compromise the utility of the site on a long-term basis because construction activities would be temporary and no net loss of habitat, trees, or tree coverage would occur. Given the regional abundance of open space in the project vicinity, the temporary, short-term construction activities would not significantly impact the movement of wildlife in the area. Therefore, impacts are considered less-than-significant.

The analysis of impact of the Source Water Diversion sites on fisheries, including on fish migration is provided in **Section 4.13, Biological Resources: Fisheries**.

Impact Conclusion

Construction impacts to movement of native wildlife and native wildlife nursery sites are considered less-than-significant. No mitigation measures are required.

Impact BT-4: <u>Construction Conflicts with Local Policies, Ordinances, or Approved Habitat Conservation Plan.</u> Proposed Project construction would potentially conflict with local policies or ordinances protecting biological resources. A conflict may occur if the HMP plant species within the Proposed Project component sites on the former Fort Ord that do not require a take authorization from the Service or CDFW are impacted, and seed salvage is not conducted. There are no approved HCPs applicable to the Proposed Project. (Criteria e and f) (Less than Significant with Mitigation)

Product Water Conveyance: RUWAP and Coastal Alignment Options and Injection Well Facilities

None of the Proposed Project component sites are located within an approved Habitat Conservation Plan or Natural Community Conservation Plan area. However, portions of the

Project Study Area associated with the Product Water Conveyance: RUWAP and Coastal alignment options, and the entire Injection Well Facilities site are located within development parcels inside the Fort Ord HMP boundaries and the plan area associated with a Draft HCP. As described in the Approach to Analysis section, construction of these Proposed Project components would be consistent with the approved HMP because all sites are located on parcels designated as "developed," if the construction activities comply with specific requirements. In particular, the BO and HMP require the identification of sensitive biological resources within development parcels that might be salvaged for use in restoration activities in reserve areas. If those species are identified, the seeds from those plants to be removed must be salvaged for restoration of other areas of the former Fort Ord. Plant species salvage requirements are described below in Mitigation Measure BT-4 to comply and ensure consistency with the BO and HMP, and would reduce this potentially significant impact to a less-than-significant level.

All Other Proposed Project Components

With the exception of the potential for inconsistency with the local requirements for the HMP plant species, the Proposed Project is consistent with all other local policies and ordinances intended to provide protection for biological resources, or would otherwise be required to comply with relevant ordinances. Construction of the Proposed Project may result in tree trimming and/or removal, although the exact number of trees will not be known until final engineering is completed. Prior to construction, the Proposed Project would be required to comply with the tree trimming/removal ordinances outlined in the relevant city and county codes (including City of Seaside Municipal Code Chapter 8.54 and City of Marina Municipal Code Chapter 12.04). Because the project proponent(s) would be required to comply with and implement the requirements of the relevant codes, the Proposed Project is considered consistent with the policies associated with tree trimming or removal and protection. Therefore, the impacts associated with potential conflict with tree removal and other biological resources policies and ordinances are considered less-than-significant.

Impact Conclusion

There is potential for inconsistency with the local requirements for the HMP plant species for components located within the boundaries of former Fort Ord. Implementation of Mitigation Measure BT-4, as specified for components with sites located within the former Fort Ord, would reduce this potentially significant impact to a less-than-significant level.

Mitigation Measures

The following mitigation measures apply to the Product Water Conveyance: RUWAP and Coastal alignment options and the Injection Well Facilities where located within the former Fort Ord. Implementation of the following mitigation measures would reduce Impact BT-4 to a less-than-significant level.

Mitigation Measure BT-4. HMP Plant Species Salvage. (Applies to Product Water Conveyance: RUWAP and Coastal Alignment Options, and Injection Well Facilities site within the former Fort Ord only)

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 reseeding and restoration efforts on- or off-site, as determined appropriate in the salvage plan.

4.5.4.4 *Operational Impacts and Mitigation Measures*

Impact BT-5: <u>Operational Impacts to Special-Status Species.</u> Proposed Project operations would not adversely affect, either directly or through habitat modification, special-status plant and wildlife species and their habitat. (Criteria a, b, c, and d) (Less than Significant)

All Proposed Project Components

As previously described in the Approach to Analysis, the potential impacts to special-status species would primarily occur during the construction of the Proposed Project. The operation of the project would not result in significant impacts to special-status species.

General operations and maintenance activities associated with pipelines would include annual inspections, testing and servicing of valves, vegetation maintenance along rights-of-way, and repairs of minor leaks in buried pipeline joints or segments. In addition, it is anticipated that each of the injection wells would be back-flushed for about four hours weekly, requiring discharge of the back-flush water to a percolation pond or back-flush basin. These discharges of groundwater would be intermittent, and would temporarily inundate a small area that is included in the Project Study Area prior to percolating to the groundwater basin. In addition, the area would be disked occasionally to maintain the percolation characteristics of the basin. General operations and maintenance activities associated with other project facilities (e.g., Salinas Pump Station, Salinas Treatment Facility, Lake El Estero, the Reclamation Ditch Diversion site, Tembladero Ditch Diversion site, Blanco Drain Diversion site, and Product Water Conveyance Booster Pump Station) would include staff oversight, monitoring and inspections, repairs, and servicing. These activities would not significantly impact any special-status species, if present, as the disturbance would be minimal and intermittent. Therefore, potential operations and maintenance impacts are considered less-than-significant and no mitigation is required.

Impact Conclusion

Operational impacts to Special-Status Species are considered less-than-significant. No mitigation measures are required.

Impact BT-6: Operational Impacts to Sensitive Habitats. Proposed Project operations may adversely affect sensitive habitats (including riparian, wetlands, and/or other sensitive natural communities) within and adjacent to the Project Study Area. (Criteria b and c) (Less than Significant with Mitigation)

Operation and maintenance activities associated with the Proposed Project may result in direct and indirect impacts to sensitive habitats. The following provides detailed analysis of the impacts by Proposed Project component.

Source Water Diversion and Storage Sites

Salinas Pump Station Diversion Site and Salinas Treatment Facility Storage and Recovery

Direct Habitat Impacts during Operation

No sensitive habitats occur at the Salinas Pump Station site, and, therefore, no operational or maintenance impacts to sensitive habitats would occur. Approximately 35 acres of riparian habitat occurs within the Project Study Area at the Salinas Treatment Facility. Operations at the site would consist of monitoring pumps and pond levels, diverting water to other ponds as needed. These operational activities are proposed on the north side of the wastewater treatment ponds and not within or directly adjacent to the riparian habitat along the Salinas River or riparian ditch north of the ponds. Therefore, the Proposed Project would not result in impacts to sensitive habitat at this component site.

Indirect Operational Impacts to Affected Reaches: Salinas River

The operation of the Salinas Pump Station Diversion and the Salinas Treatment Facility component of the Proposed Project would affect the hydrology of the Salinas River. The degree to which changes in the amount of flow and duration of flow may result in impacts to sensitive habitats and species and plants associated with these water bodies is assessed here.

Currently, treated agricultural wash water is disposed by using evaporation/percolation ponds and basins at the Salinas Treatment Facility, with some flows seeping into and contributing to flows in the Salinas River. The proposed diversion of estimated 3,730 AFY of agricultural wash water that would otherwise flow to this facility to the Regional Treatment Plant may reduce inflows to the Salinas River by up to 2,174 AFY, and may also increase percolation of river water to the shallow aquifer further reducing other river flows. Flows in the Salinas River below the Salinas Treatment Facility were estimated using a mass balance model, and a statistical analysis was performed on the results. The proposed diversions would reduce average annual flows in the river by up to 1%.

For the analysis of the Proposed Project on Salinas River flows, the change in seepage to the Salinas River is relevant to the estimation of inflow impacts. The evaporation and percolation rates from the Salinas Treatment Facility ponds were estimated by Todd Groundwater based upon operational records for the period December 2012 to December 2014 and site observations. The report estimated percolation to groundwater at an average rate of 0.73 cubic feet per second (cfs), and percolation to the Salinas River at an average rate of 3.0 cfs. This maximum percolation rate into the river is used for the impact analysis. Additional details concerning groundwater and percolation rates can be found in the analysis and discussion of groundwater provided in **Section 4.10, Hydrology and Water Quality: Groundwater**.

The Proposed Project diversions at the Salinas Pump Station Diversion Site, and storage and recovery from the Salinas Treatment Facility would reduce average annual flows by up to 1%

downstream of the diversion point. The potential reduction of up to 1% of average annual flows in Salinas River flows is not substantial in relation to total flows and would not result in a substantial alteration of existing flows that would lead to significant impacts to sensitive habitats. Thus, this diversion would result in a less-than-significant impact on Salinas River flows, and, therefore, a less-than-significant impact on the riparian and wetland habitats associated with the river.

Reclamation Ditch and Tembladero Slough Diversion

Direct Habitat Impacts during Operations

The Reclamation Ditch and Tembladero Slough Diversion facilities both include a pump station, which would be configured to operate autonomously. The sites would be monitored and approximately once per month, an operator would need to access the channel bottom to inspect, and if needed, physically clear vegetation or debris from the intake screen. The pumps would require annual inspection and servicing, using a lift truck to remove the pumps from the wet well. These activities may temporarily and intermittently result in the necessity to access facilities within the aquatic habitat at the site and potentially result in erosion and sedimentation. However, implementation of standard erosion BMPs during these activities would reduce this potential impact to a less-than-significant level.

Indirect Operational Impacts to Affected Reaches: Reclamation Ditch, Tembladero Slough, and Old Salinas River Channel

The operation of the Tembladero Slough and Reclamation Ditch Diversion components of the Proposed Project would affect the hydrology of the Reclamation Ditch, Tembladero Slough, and the Old Salinas River Channel. The degree to which changes in the amount of flow and duration of flow may result in impacts to sensitive habitats and species and plants associated with these water bodies is assessed here.

Three of the affected reaches of the GWR project include the Reclamation Ditch (Ditch), Tembladero Slough, and the Old Salinas River Channel. While these three features are hydrologically connected, the Reclamation Ditch is evaluated separately from the Tembladero Slough and Old Salinas River Channel because of their relative locations within the landscape. The Reclamation Ditch follows the historic alignment of Gabilan Creek. Much of the alignment traversed rolling, grass-covered uplands. Conversely, the Tembladero Slough and Old Salinas River Channel are features within the historic floodplain of the Salinas River and estuary (Casagrande and Watson, 2006). The Reclamation Ditch gains elevation relatively quickly along its alignment to the east, while the Tembladero Slough and Old Salinas River Channel are located within the bottomlands of the system and remain relatively flat in comparison. The Reclamation Ditch is deeper and narrower compared to the Tembladero Slough and Old Salinas River Channel and is a much flashier system, meaning surface water elevations change more dramatically compared the other features lower in the system. As a result of the channel morphology being deep and narrow, the significant variability in water depth and duration of inundation, and historic and on-going maintenance activities, there is little to no opportunity for wetlands and riparian habitat to become established within the Reclamation Ditch. In contrast, the Tembladero Slough and Old Salinas River Channel are broad and relatively flat features with stable hydroperiod resulting from the moderating function of the Potrero Tide Gate (Gate) located at the bottom of the system at Potrero Road adjacent to the Moss Landing Harbor (Harbor) (Inman et al., 2014).

Wetlands within the Reclamation Ditch

As a result of the Reclamation Ditch's location within the landscape, the channel is V-shaped, very deep, and the banks are very steep. In addition, active agriculture or urban development occurs to the top of the bank in almost all cases. Historic and on-going maintenance activities include removal of vegetation, in addition to, fallback that occurs as a function of the artificially maintained steep slope (Casagrande and Watson, 2006).[21] The relatively significant elevation change within the Reclamation Ditch from Davis Road to its confluence with the Tembladero Slough facilitates relatively high velocity flows during storm events or high discharge events associated with agriculture. Low flow conditions occur as the base line condition between the potentially frequent, but inconsistent, high water events. All of these factors contribute to an environment that is not conducive to the establishment of wetlands which typically require a fairly stable hydrological source and substrate. Consistent with this narrative, no wetlands were present in the Reclamation Ditch at the time of the delineation, and, therefore, no impact to wetlands will occur.

Riparian Habitat within the Reclamation Ditch

Riparian habitat is a function of, and sustained by, dry season, sub-surface hydrology. While the Reclamation Ditch's hydrology is inconsistent in regards to periodicity, volume, depth, and duration of inundation, it rarely, if ever, goes dry (USGS, 2015). A continuously wetted channel results in saturated soils within, and directly adjacent to, its banks during the dry season. However, while vegetation removal associated with agricultural practices typically precludes establishment of vegetation along the top of bank and/or within the channel in most cases, there are two small patches of riparian habitat adjacent to the Reclamation Ditch where the land owner has allowed it to persist. These patches occur west of North Davis Road (**Attachment 8 of Appendix H**, Sheet 14) and just east of the intersection of Highway 183 and the Reclamation Ditch (**Attachment 8 of Appendix H**, Sheet 8). The proposed diversions include maintaining a minimum flow throughout the dry-season operation. At low volume conditions in permeable soils, surface water will not form unless there is some localized soil saturation. As a result, if surface flow is present within the Reclamation Ditch, soils within the Reclamation Ditch will be saturated. The saturated soils will continue to provide the necessary dry-season, sub-surface hydrology needed to sustain riparian habitat along the Reclamation Ditch. Therefore, the proposed diversion would not have a significant impact on the riparian habitat along the Reclamation Ditch.

Wetlands within the Tembladero Slough and Old Salinas River Channel

As discussed above, the Tembladero Slough and the Old Salinas River Channel can be discussed concurrently because they share common conditions as a function of their location in the landscape and hydrology. These resources are located in the flatland and historic floodplain of the Salinas River. There is relatively little elevation drop from the top of the Tembladero Slough to the end of the Old Salinas River Channel at the Potrero Road flood gate (Gate). Because these features are located further down in the system, there are more and varied hydrologic inputs. The presence of the Gate moderates the discharge of water exiting the Old Salinas River Channel, which results in a very stable hydroperiod with surface water elevations only fluctuating significantly during wet season storm events (Casagrande and Watson, 2006; Inman et al. 2014). The dry season elevations are consistent in depth and duration of inundation

[21] Fallback refers to the on-going process of soil sloughing of the channel banks into the channel bottom as a result of the over steepness of the banks. The presence of erosion in the form of fallback and sedimentation within the channel requires regular maintenance in the form or soils removal and grading/contorting of the channel banks.

and resemble a muted tidal environment. While some remnants of historic salt marsh and emergent wetlands remain adjacent to the Old Salinas River Channel and at the confluence of the Tembladero Slough and the Old Salinas River Channel, the distribution of wetland habitat over the landscape is a function of existing agricultural operations. Specifically, wetlands only exist where farming land owners have decided that they want to keep vegetation along a narrow strip between their field and the channel.

The salt marsh exists to the west of the Old Salinas River Channel in a couple of large patches between the top of bank westward to the toe of slope of the dunes that lie between it and the Pacific Ocean (**Attachment 8 of Appendix H**, Sheets 1-2). In addition, a narrow band of salt marsh exists on the east bank of the Old Salinas River Channel from top of bank to the boundary of active agriculture. This habitat occurs from the Gate southward to just north of the confluence of the Tembladero Slough and Old Salinas River Channel. A water quality treatment wetland exists at the confluence, but is supplied by water pumped in from the Tembladero Slough (S. Hession, DD&A, personal observation). Additional emergent wetland occurs in a narrow band along the western bank of the Old Salinas River Channel from the confluence southward to the first big bend (**Attachment 8 of Appendix H**, Sheet 2).

The Tembladero Slough and Old Salinas River Channel receive hydrologic input from a variety of sources. One of those sources is the Reclamation Ditch. During the dry season the average daily flow by month has historically ranged from approximately 6 to 8 cfs (USGS, 2015). An additional 3 cfs is gained along the Reclamation Ditch and Slough between North Davis Road and the Castroville diversion sites.[22] The proposed diversion could significantly reduce the input from these combined sources. If the diversion resulted in a reduction in the depth or duration of inundation to the wetland resources identified above, there could be a potential impact. However, additional hydrologic inputs exist, the most significant of which is the Salinas River via the slide gate located on the east end of the Salinas River Lagoon (Lagoon). Per existing requirements, the Salinas Valley Water Project (SVWP) is required to sustain mandatory minimum flows under certain conditions. The Lagoon and Old Salinas River Channel are hydrologically connected via a large box culvert and slide gate. While there is no discharge data at the slide gate, bypass flow is measured at the SVWP each year it is operated. This data indicates significant bypass flows in the dry season (MCWRA 2011; MCWRA 2012; MCWRA 2013; MCWRA 2014). When the Lagoon is closed, as it is much of the summer, those flows enter the Lagoon and discharge into the Old Salinas River Channel via the slide gate. Typically, those flows have rarely fallen below 9 cfs for any significant length of time and may be significantly larger for much of the season. An additional input is leakage through the Gate when it is closed. While no data exists that quantifies the seepage into the Old Salinas River Channel, it can be observed and may constitute an additional 1 to 2 cfs (J. Harwayne, DD&A, personal observation, 2014). Salinity readings in the Old Salinas River Channel indicate a significant marine input and it is reasonable to assume that the leakage through the Gate provides this input (Casagrande and Watson, 2006; Nicol et al., 2010; Inman et al. 2014).

The most important factor influencing hydrologic conditions in the Tembladero Slough and Old Salinas River Channel is the presence and function of the Gate. The Gate opens twice a day as a result of the tidal cycle in the harbor. During the dry season, the surface water elevation changes very little between cycles relative to water surface elevation in the Old Salinas River

[22] Agricultural return flows to the Old Salinas River and Tembladero Slough below Castroville were estimated as 10% of the average crop irrigation plus precipitation. Irrigation rates for the CSIP service area and rainfall at the Salinas Airport were used. Return flow rate was conservatively assumed to be lower than the 17% estimated in the Blanco Drain Yield Study, (Schaaf & Wheeler, 2014).

Channel and Slough (Inman et al., 2014)[23]. During the wet season, the water surface elevation can and does rise dramatically in the Tembladero Slough and Old Salinas River Channel and annually exceeds its banks and floods adjacent lands (Casagrande and Watson, 2006). This predictable hydrologic condition, or hydroperiod, consists of a stable summer surface water elevation that fluctuates very little and winter condition with large variation in surface water elevations. The proposed diversions would occur almost exclusively during the dry season and would not significantly alter the existing hydroperiod within the Tembladero Slough and Old Salinas River Channel as the surface water elevation in this area is moderated by the tidal cycle of the harbor. Large wet season flows associated with storm events are of a magnitude that the diversion will have no measurable effect of the rise in surface water elevation and associated inundation of wetland adjacent to the channel. Therefore, the proposed diversions would not impact wetlands adjacent to the Tembladero Slough and Old Salinas River Channel.

Riparian Habitat within the Tembladero Slough and Old Salinas River Channel

Four small patches of riparian habitat are located adjacent to the channel within the Tembladero Slough west of Highway 183 (**Attachment 8 of Appendix H**, sheets 5-7). As with the other wetland and riparian habitats throughout the system, the distribution of riparian habitat within the Tembladero Slough is a function of urban and agricultural land uses. Each of the four patches are located between, and bounded by, the top of bank and adjacent urban or agricultural land uses. Unlike the riparian patches adjacent to the Reclamation Ditch, three of the four patches adjacent the Tembladero Slough receive urban runoff, which contributes to the dry season hydrology of these sites.

As described above, the proposed diversions include maintaining a minimum flow throughout the dry season operation, which would facilitate the dry season soil saturation necessary to sustain riparian habitat. In addition, the Tembladero Slough is subject to the hydrological effects of the Gate resulting in stable dry season hydrology. Therefore, the proposed diversion would not have a significant impact on the identified riparian habitat within the Tembladero Slough.

[23] The study by Inman et al. 2014 was conducted in a dry year following an extended dry period.

Table 4.5-11
Summary of Operational Impacts to Affected Reaches

Impact Title	Affected Reaches		
	Reclamation Ditch	Tembladero Slough	Old Salinas River Channel
BT-5: Operational Impacts to Special-Status Species and Habitat.	LS	LS	LS
BT-6: Operational Impacts to Riparian, federally protected wetlands as defined by Section 404 of the Clean Water Act, or Other Sensitive Natural Community.	LS	LS	LS
BT-7: Operational Impacts to Movement of Native Wildlife and Native Wildlife Nursery Sites.	LS	LS	LS
BT-8: Operational Conflicts with Local Policies, Ordinances, or approved Habitat Conservation Plan.	LS	LS	LS

NI - No Impact
LS - Less than Significant
LSM - Less than Significant with Mitigation
SU - Significant Unavoidable

Blanco Drain Diversion Site

Direct Habitat Impacts during Operations

The Blanco Drain Pump Station would be similar to the Reclamation Ditch and Tembladero Slough Pump Stations, configured to operate autonomously based upon diversion settings. The pipeline valves would be inspected and exercised once per year. Any above-grade air-release valves would be inspected quarterly, requiring a system operator to drive the pipeline alignment. These activities may temporarily and intermittently result in the necessity to access facilities within the aquatic and riparian habitats at the site and potentially result in erosion and sedimentation. However, implementation of standard erosion BMPs during these activities would reduce this potential impact to a less-than-significant level.

Indirect Operational Impacts to Affected Reaches: Salinas River

The operation of the Blanco Drain Diversion component of the Proposed Project would affect the hydrology of the Salinas River as the Blanco Drain is a direct tributary. However, the potential reduction in Salinas River flows due to the operation of the diversion is not substantial in relation to total flows and would not result in a substantial alteration of existing flows that would lead to significant impacts to sensitive habitats. Potential reductions in the Salinas River would only be up to 1% of average annual flows. Thus, this diversion would result in a less-than-significant impact on Salinas River flows, and, therefore, a less-than-significant impact on the riparian and wetland habitats associated with the river.

Lake El Estero Diversion

The Lake El Estero Pump Station would operate autonomously, based on lake and water levels in the receiving sanitary sewer. An operator would monitor the site, and if a lakeside intake is used, approximately once per month, an operator may need to physically clear vegetation or debris from the intake screen. The pumps would require annual inspection and servicing, using

a lift truck to remove the pumps from the wet well. These activities would be contained within the developed area at the site and no impacts to sensitive habitats in the vicinity would occur.

The City of Monterey maintains the Lake El Estero water level for aesthetics and recreational use. The Proposed Project would not reduce the water levels below those currently maintained by the City of Monterey such that no habitat changes would occur. The Proposed Project would only reduce the volume of stormwater from the lake that would be discharged to the ocean.

Treatment Facilities at Regional Treatment Plant

No sensitive habitats occur at the Treatment Facilities at the Regional Treatment Plant, and, therefore, no operational impacts to sensitive habitats would occur.

Product Water Conveyance Facilities

There are no sensitive habitats within either of the proposed booster pump station sites, and, therefore, no operational impacts to sensitive habitats would occur at these sites. Therefore, the following impact discussion for the Product Water Conveyance: RUWAP and Coastal alignment options refers to operational impacts associated with the proposed pipeline alignment options only (not the sites for the Booster Pump Station options).

General operations and maintenance activities associated with the RUWAP and Coastal Pipeline options would include annual inspections, testing, servicing, and repairs of minor leaks in buried pipeline joints.

RUWAP Pipeline Alignment Option

Central maritime chaparral (brittle leaf-wooly leaf manzanita chaparral) is present along the Product Water Conveyance: RUWAP pipeline option. This habitat is located within the former Fort Ord. As discussed in the Approach to Analysis, impacts to sensitive central maritime chaparral habitat are analyzed and addressed in the HMP and, therefore, impacts to this habitat are also considered mitigated through the implementation of the HMP. Therefore, operational impacts to central maritime chaparral along the Product Water Conveyance: RUWAP Pipeline option are considered less-than-significant and no additional mitigation measures are required.

Coastal Alignment Option

Operational activities may result in impacts to riparian habitat (arroyo willow thickets), regulated under the Fish and Game Code, and wetlands, potentially under USACOE and CCA jurisdiction, although the exact amount is unknown. Operation and maintenance activities may temporarily and intermittently result in the necessity to access facilities within the riparian and wetland habitats and potentially result in erosion and sedimentation. However, implementation of standard erosion BMPs during these activities would reduce this potential impact to a less-than-significant level.

Injection Well Facilities

The injection wells and associated facilities would operate 24 hours per day, 7 days a week throughout the year, although it is unlikely that all eight wells would be actively injecting at the same time. Operations and maintenance staff would conduct daily monitoring visits to the site, inspecting above-ground valves and appurtenances, and conducting and monitoring the back-flush operations. Based on the experience of the Water Management District in the operation of its nearby Aquifer Storage and Recovery wells, back-flushing of each injection well would occur for about four hours weekly and would require discharge of the back-flush water to the percolation basin. The Water Management District's experience is that the back-flushing operation should be conducted manually and the back-flush water discharge be visibly checked

and field-tested to confirm adequate flushing time has been provided. Approximately annually, a disking machine would be used to disk-up the bottom of the pond to increase/restore the percolation rate.

The Injection Well Facilities site contains central maritime chaparral, which is considered a sensitive habitat by CDFW. This entire Proposed Project component site is located within the former Fort Ord and is not located in the coastal zone. As described in the Approach to Analysis, impacts to sensitive central maritime chaparral habitat are analyzed and addressed in the HMP and, therefore, impacts to this habitat are also considered mitigated through the implementation of the HMP. Therefore, impacts are considered less-than-significant and no additional mitigation measures are required.

CalAm Distribution Pipelines

General operations and maintenance activities associated with the Transfer and Monterey Pipelines would include annual inspections, testing, servicing, and repairs of minor leaks in buried pipeline joints.

Transfer Pipeline

No sensitive habitats were observed within the Project Study Area associated with the Transfer Pipeline; therefore, no operational impacts to sensitive habitats would occur.

Monterey Pipeline

Operational and maintenance activities may temporarily and intermittently result in the necessity to access facilities within the aquatic and riparian habitats and potentially result in erosion and sedimentation. However, implementation of standard erosion BMPs during these activities would reduce this potential impact to a less-than-significant level.

These activities may also temporarily and intermittently result in the necessity to access facilities within the central dune scrub and monarch butterfly habitats at the site. Operation and maintenance activities may result in direct disturbance to habitats in order to access buried pipelines within the central dune scrub or result in indirect impacts associated with noise, dust, and vibration adjacent to the monarch habitat. This is considered potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure BT-6. Although these measures apply to construction activities, applying this measure to operation and maintenance activities where central dune scrub and monarch habitat is present would reduce impacts by educating maintenance crews, fencing sensitive habitat, and monitoring.

Impact Conclusion

The operation of the Proposed Project could result in impacts to sensitive habitat along the CalAm Distribution System: Monterey Pipeline. Implementation of Mitigation Measure BT-6 would reduce potentially significant impacts to sensitive habitat during operational and maintenance activities to a less-than-significant level.

The combined operation of the Salinas Pump Station Diversion, Salinas Treatment Facility, and the Blanco Drain Diversion components of the Proposed Project would affect the hydrology of the Salinas River with a potential reduction of up to 2% of the average annual flow (up to 1% of the average annual flow with the operation of the Salinas Pump Station Diversion and the Salinas Treatment Facility, combined with up to 1% of the average annual flow with the operation of the Blanco Drain Diversion). The reduction of up to 2% of the average annual flow in the Salinas River by the coexistent

operation of the Salinas Pump Station Diversion, Salinas Treatment Facility, and the Blanco Drain Diversion components of the Proposed Project is not substantial in relation to total flows. Thus, this diversion would result in a less-than-significant impact on Salinas River flows, and, therefore, a less-than-significant impact on the riparian and wetland habitats associated with the river.

Mitigation Measure

Mitigation Measure BT-6. Implementation of Mitigation Measures BT-1a for Avoidance and Minimization of Operational Impacts to Sensitive Habitat (Applies to CalAm Distribution System: Monterey Pipeline)

During operation and maintenance activities, implementation of Mitigation Measures BT-1a, which avoid and minimize impacts through implementing construction best management practices and monitoring, would reduce potential impacts to sensitive habitat to a less-than-significant level.

Impact BT-7: Operational Impacts to Movement of Native Wildlife and to Native Wildlife Nursery Sites. Proposed Project operations would not adversely affect native wildlife corridors and wildlife nursery sites. (Criterion d) (Less than Significant)

All Proposed Project Components

The operation of the Proposed Project components does not have the potential to impact the movement of native wildlife or native wildlife nursery sites. The Proposed Project components that are not located entirely underground would be located on existing paved, urbanized sites, less than ¼ acre in size with buildings less than 20 feet tall, and are not within known migratory corridors or nurseries used by native wildlife. The exception to this is the Treatment Facilities at the Regional Treatment Plant, which would be located on a 3.5 acre site but is immediately adjacent to and surrounded by access roads, the landfill, wastewater treatment plant, and other similar land uses. Therefore, operational impacts to movement of native wildlife and native wildlife nursery sites are considered less-than-significant. The impacts to fish and fish migration are addressed in **Section 4.4 Biological Resources: Fisheries**.

Impact Conclusion

Operational impacts to movement of native wildlife and native wildlife nursery sites are considered less-than-significant. No mitigation measures are required.

Impact BT-8: Operational Conflicts with Local Policies, Ordinances, or approved Habitat Conservation Plan. Proposed Project operations would not conflict with local policies or ordinances protecting biological resources. (Criteria e and f) (Less than Significant)

All Proposed Project Components

The operation and maintenance of the Proposed Project components would not conflict with any local policies, ordinances, or approved Habitat Conservation Plan. Operation and maintenance activities would not require compliance with local requirements for the HMP plant species. The Proposed Project is consistent with all other local policies and ordinances intended to provide protection for biological resources, or would otherwise be required to comply with relevant

ordinances. Because the project proponents would comply with and implement the requirements of the relevant codes, the Proposed Project is considered consistent with the policies associated with tree trimming or removal and protection. Therefore, the impacts associated with potential conflict with tree removal and other biological resources policies and ordinances are considered less-than-significant.

Impact Conclusion

Operational conflicts with local policies, ordinances, or approved Habitat Conservation Plan are considered less-than-significant. No mitigation measures are required.

4.5.4.5 *Cumulative Impacts*

The geographic scope for cumulative impact analysis on terrestrial resources consists of the overall region (such as central coastal California) in which the GWR facilities are being constructed. Based on the list of cumulative projects provided on **Table 4.1-2, Project Considered for Cumulative Analysis (listed by primary geographic area in which project is located)** (see **Section 4.1, Environmental Setting, Impacts, and Mitigation Measures**), projects throughout the region could have adverse effects on the same sensitive species and habitats that occur within and adjacent to the Proposed Project component sites.

The discussion of cumulative impacts is organized to address the combined impacts of the Proposed Project plus the CalAm Monterey Peninsula Water Supply Project (MPWSP) (with the 6.4 mgd desalination plant) and then to address the overall combined impacts of the Proposed Project and all relevant past, present and probable future projects identified on **Table 4.1-2**:

- *Combined Impacts of Proposed Project Plus MPWSP* (with 6.4 mgd Desalination Plant) (referred to as the MPWSP Variant):[24] The MPWSP includes: a seawater intake system; a source water pipeline; a desalination plant and appurtenant facilities; desalinated water conveyance facilities, including pipelines, pump stations, and a terminal reservoir; and an expanded ASR system, including two additional injection/extraction wells (ASR-5 and ASR-6 Wells), a new ASR Pump Station, and conveyance pipelines between the wells. The CalAm Distribution Pipelines (Transfer and Monterey) would be constructed for either the MPWSP or GWR project. The overall estimated construction schedule is from June 2016 through March 2019 for the combined projects, during which time the construction schedule of each project could overlap for approximately 18 months (mid-summer 2016 through December 2017). The cumulative impact analysis in this EIR anticipates that the Proposed Project could be combined with a version of the MPWSP that includes a 6.4 mgd desalination plant. Similarly, the MPWSP EIR is evaluating a "Variant" project that includes the proposed CalAm Facilities (with the 6.4 mgd desalination plant) and the Proposed Project. The impacts of the Variant are considered to be cumulative impacts in this EIR. The CalAm and GWR Facilities that comprise the MPWSP Variant are shown in **Appendix Y**.

[24] The October 2012 Notice of Preparation of an EIR for the MPWSP describes an alternative to the MPWSP that would include a smaller desalination plant combined with the Proposed GWR Project (CPUC, 2012). Based on ongoing coordination with the CPUC's EIR consultants, this alternative is referenced as the "Variant" and includes a 6.4 mgd desalination plant that was proposed by CalAm in amended application materials, submitted in 2013 to the CPUC (CPUC, 2013).

- Overall Cumulative Projects: This impact analysis is based on the list of cumulative projects provided on **Table 4.1-2** (see **Section 4.1, Introduction**). The overall cumulative impacts analysis considers the degree to which all relevant past, present and probable future projects (including the MPWSP (with the 6.4 mgd desalination plant) could result in impacts that combine with the impacts of the Proposed Project.

Combined Impacts of Proposed Project Plus MPWSP (with the 6.4 mgd Desalination Plant). The Proposed Project and MPWSP Variant components involve construction activities that could impact sensitive habitats (e.g., central dune scrub, central maritime chaparral, and riparian and wetland habitats), special-status plants (please refer to **Table 4.5-3,** and Mitigation Measure BT-1f), and special-status wildlife species (e.g., Smith's blue butterfly, California legless lizard, Coast horned lizard, western burrowing owl, American badger, Monterey dusky-footed woodrat, California red-legged frog, western pond turtle, special-status bats, and nesting birds).

The Desalinated Water Pipeline (or Transmission Main) component of the MPWSP would be in a similar location as the segments of the Proposed Project's Product Water Conveyance Coastal Alignment pipeline along the Transportation Agency for Monterey County's rail line corridor. The construction schedules for the two projects could overlap. If the Proposed Project, as approved, includes the Coastal Alignment option for the Product Water Conveyance pipeline, construction of the two pipelines in parallel to each other could involve simultaneous construction within the same area. However, the limits of construction for the two projects would occur within the GWR Project Study Area and impacts within this Project Study Area have been addressed in **Section 4-5** and the Proposed Project's contribution to the cumulative impact can be reduced to less-than-significant with implementation of the mitigation measures identified. The seasonal timing of construction as well as implementing pre-construction avoidance and minimization measures would mitigate these short-term, construction-related impacts. Mitigation measures included in this EIR will protect special-status species and potential nesting birds during construction and would reduce the project's contribution to cumulative impacts to a less-than-significant level.

Both the Product Water Conveyance pipeline and the MPWSP pipelines that coincide in location would be located entirely underground after construction; therefore, there would not be a permanent cumulative impact to terrestrial biological resources after completion of construction. Future operations and maintenance activities associated with the pipelines may occur at the same time; however, these impacts would be temporary and short-term. This is not considered a significant cumulative impact of the combined projects because of the short-term and temporary nature of the operation and maintenance activities.

Overall Cumulative Impacts. The Proposed Project has the potential to impact some of the same biological resources as other past, present, and probable future projects. However, the Proposed Project's construction-related impacts would not be cumulatively considerable with implementation of the mitigation measures identified. Proposed Project construction impacts to special-status species and habitat, and construction impacts to riparian, federally protected wetlands as defined by section 404 of the Clean Water Act, or other sensitive natural community (see **Table 4.5-8** above) were found to be less-than-significant with mitigation. **Table 4.5-9** provides a summary of construction impacts to affected reaches below the Reclamation Ditch Diversion. With mitigation, construction impacts from the Proposed Project on affected reaches (e.g., the Reclamation Ditch, Tembladero Slough, and Old Salinas River Channel) can be reduced to less-than-significant.

Similarly, the Proposed Project's operational impacts would not be cumulatively considerable with implementation of the mitigation measures identified. The Proposed Project operational

impacts to special-status species and habitat and operational impacts to movement of native wildlife were found to be less-than-significant, as were operational conflicts with local policies, ordinances, or approved Habitat Conservation Plan. The Proposed Project impacts from operations to riparian, federally protected wetlands, and other sensitive natural communities were found to be less-than-significant with mitigation.

Proposed Project operational impacts associated with the operation of the Tembladero Slough and Reclamation Ditch Diversion would affect the hydrology of the Reclamation Ditch, Tembladero Slough, and the Old Salinas River Channel. The degree to which changes in the amount of flow and duration of flow may result in impacts to sensitive habitats and species and plants associated with these water bodies is assessed above and conclusions provided in **Table 4.5-11, Summary of Operational Impacts to Affected Reaches**.

The Proposed Project's operational impacts and one of the cumulative projects listed in **Table 4.1-2** could result in combined impacts on Salinas River flows. The Proposed Project and the Salinas Valley Water Project Phase 2 both would involve changes to surface flows that would occur in the Salinas River. As discussed above under Impact BT-6, the Proposed Project would result in minor changes to flow in the Salinas River. Reductions in the total annual flow of the Salinas River resulting from the operation of various components of the Proposed Project would be less-than-significant. Therefore, impacts to sensitive habitat as a result of changes in flow in the Salinas River as a result of the Proposed Project would be less-than-significant.

New projects involving diversions from the Salinas River will be subject to the water rights and appropriate permits from the State Water Resources Control Board (SWRCB) as well as environmental restrictions to maintain adequate flow for fisheries (details concerning fisheries presented in **Section 4.4 Biological Resources: Fisheries**). With the permit conditions imposed and required by SWRCB water rights permits and the requirements of flows for fish migration, the Proposed Project and the Salinas Valley Water Project Phase 2 would not result in a significant cumulative impact to sensitive habitat due to a reduction of flow in the Salinas River.

Cumulative Impact Conclusion

The Proposed Project would not make a considerable contribution to significant cumulative impacts to terrestrial biological resources, and this is a less than significant cumulative impact.

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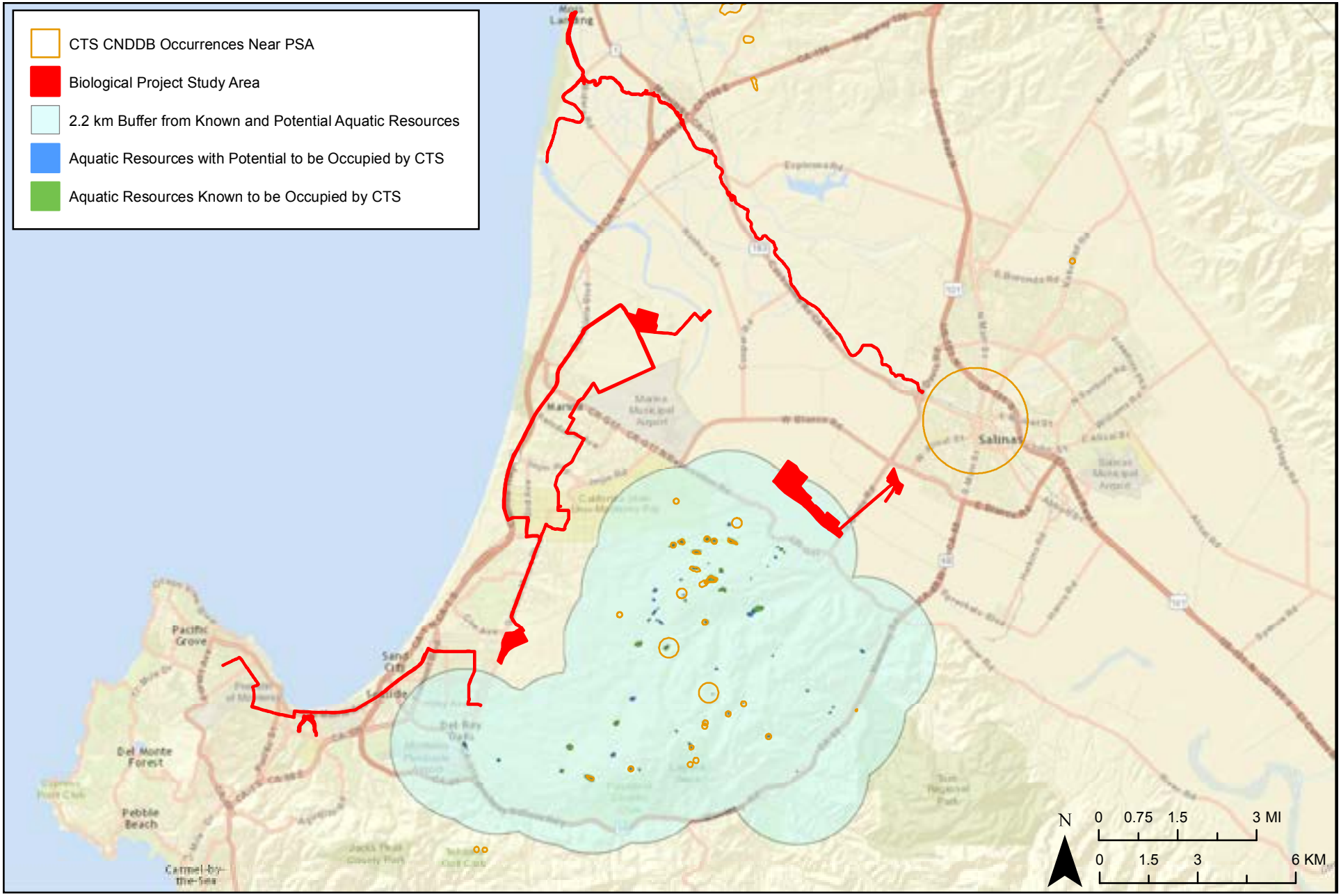

CTS Occurrence within the Vicinity of the PSA

April 2015

Pure Water Monterey GWR Project
Draft EIR

Figure
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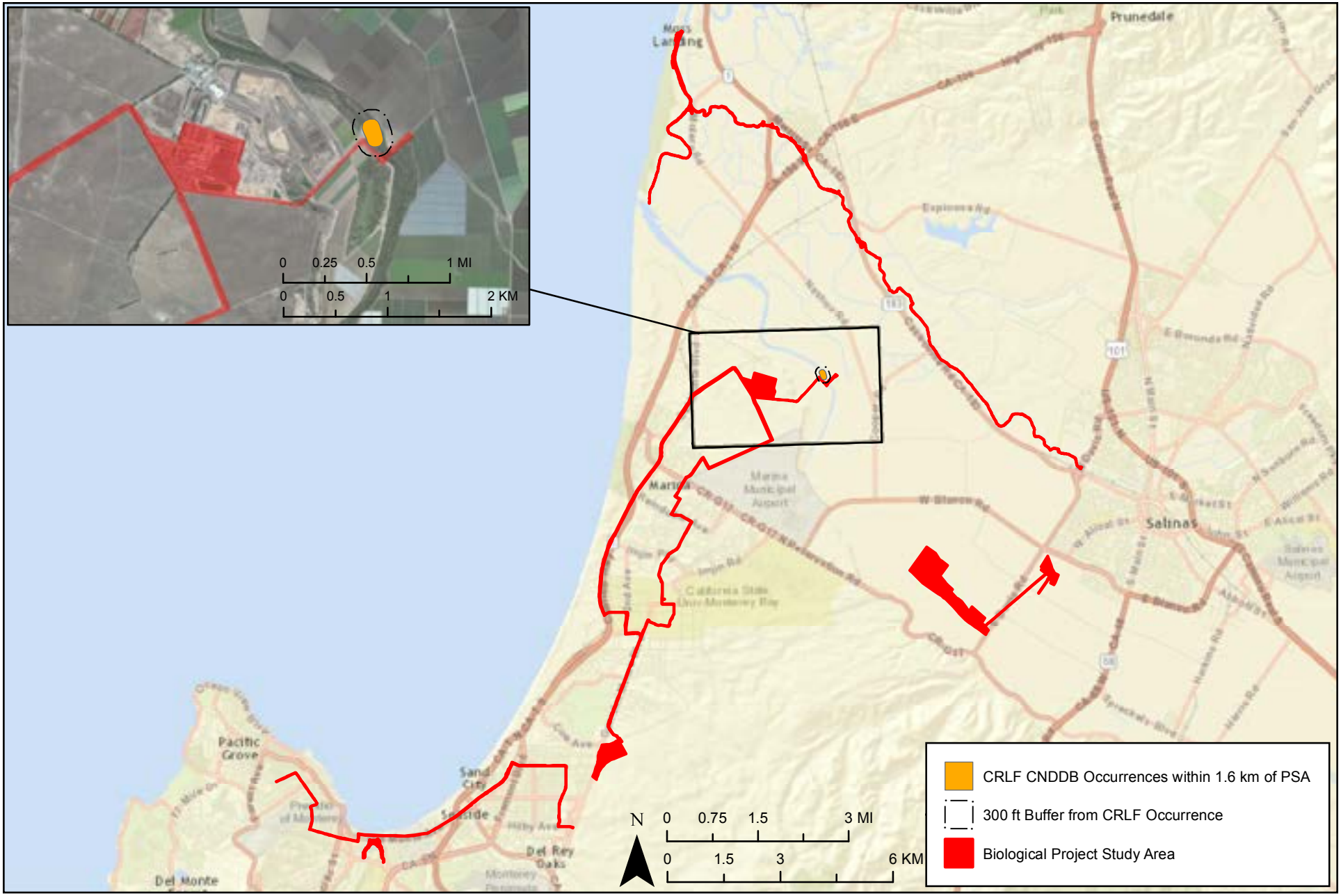

CRLF Occurrences within the Vicinity of the PSA

April 2015

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Figure
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