4.6 Terrestrial Biological Resources

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This section describes terrestrial biological resources in the Monterey region, as well as such resources within the project area. The resources described include vegetation communities and associated wildlife, wetlands and other water bodies, freshwater and anadromous fisheries[1], and special-status plants and wildlife (federal or state endangered, threatened, proposed, and candidate species; and state or local species of concern). This section analyzes the potential for the Monterey Peninsula Water Supply Project (MPWSP or proposed project) to adversely affect biological resources and prescribes mitigation to offset significant impacts. Impacts to marine biological resources are discussed separately in Section 4.5, Marine Resources.

4.6.1 Setting

4.6.1.1 Definitions

Project area refers to the area where all construction-related disturbance would occur. All permanent footprints of the proposed facilities are within the project area. The reconnaissance-level biological field surveys conducted for the proposed project were generally consistent with the project area, with some exceptions (described in Section 4.6.1.2, below).

Special-status biological resources include special-status plants and animals,[2] sensitive natural communities, wetlands, and other waters of the United States and of the State, as defined by the U.S. Army Corps of Engineers (USACE), the U.S. Fish and Wildlife Service (USFWS), the

[1] This Biological Resources Section covers freshwater fish and inland anadromous fish, while Section 4.5 Marine Biological Resources cover marine fish and anadromous fish in the ocean.

[2] Several species known to occur within the general project area are accorded "special-status" because of their recognized rarity or vulnerability to habitat loss or population decline. Some of these species receive specific protection in federal and/or state endangered species legislation. Others have been designated as "sensitive species" or "species of special concern" on the basis of adopted policies of federal, state, or local resource agencies. These species are referred to collectively as "special-status species."

National Marine Fisheries Services (NMFS), the California Department of Fish and Wildlife (CDFW), the California Coastal Commission (CCC), the California Regional Water Quality Control Board (RWQCB), and the California Native Plant Society (CNPS).

Special-status plant and animal species are defined as:

- Species listed under the Federal Endangered Species Act (FESA), Marine Mammal Protection Act, California Endangered Species Act (CESA), California Fish and Game Code, or Native Plant Protection Act as endangered, threatened, or depleted; species that are candidates or proposed for listing; or species that are designated as rare, species of special concern, or fully protected.

- Locally rare species defined in the CEQA Guidelines, which may include species that are designated as sensitive, declining, rare, or locally endemic, or as having limited or restricted distribution by various federal, state, and local agencies, organizations, and watch lists. This includes species listed as California Rare Plant Rank (CRPR) 1A, 1B, 2A, 2B, 3 or 4 by the CNPS.[3]

Special-status plant and animal species are categorized as either listed or non-listed. Listed special-status species refers to those species that are listed as threatened or endangered under FESA and/or CESA. Non-listed special-status species refers to all other types of special-status species, as listed above, that are not listed as threatened or endangered under FESA and/or CESA.

Sensitive natural community is a natural community that receives regulatory recognition from municipal, county, state, and/or federal entities, such as the CDFW in its California Natural Diversity Database (CNDDB), because the community is unique in its constituents, restricted in distribution, supported by distinctive soil conditions, and/or considered locally rare. (See Section 4.6.1.5 for a discussion of sensitive natural communities in the project area.)

Critical habitat is defined for listed species under FESA and consists of: (1) the specific areas within the geographical area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of FESA, on which are found those physical or biological features (constituent elements) that are essential to the conservation of the species and which may require special management considerations or protection; and (2) the specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of FESA, upon a determination by the Secretary that such areas are essential for the conservation of the species.

[3] CNPS CRPR 1A is a plant that is presumed extinct in California. CRPR 1B is a plant that is rare, threatened, or endangered in California and elsewhere. CRPR 2A is presumed extirpated in California, CRPR 2B is a plant that is rare, threatened, or endangered in California but more common elsewhere. CRPR 3 is a plant about which more information is needed. CRPR 4 is a plant of limited distribution.

Waters of the U.S. is defined in the Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]) as:

(1) All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;

(2) All interstate waters, including interstate wetlands;

(3) All other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce, including any such waters that are or could be used by interstate or foreign travelers for recreational or other purposes; or from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or which are used or could be used for industrial purposes by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the U.S. under the definition;

(5) The tributaries of waters identified in numbers (1) through (4), above;

(6) Territorial seas; and

(7) Wetlands located adjacent to waters (other than waters that are themselves wetlands) identified in numbers (1) through (6), above.

Federal "Other Waters" include all non-wetland waters of the U.S. as described above.

Waters of the state are defined differently by three state agencies: RWQCB, CDFW, and CCC. Waters of the state are more broadly defined than waters of the U.S. as any surface water or groundwater, including saline waters, within the boundaries of the State of California. Boundaries of waters of the State are often determined on a case-by-case interpretation of data by the state agencies. The definition of waters of the State for each state agency is described in Section 4.6.2.2 State Regulations.

4.6.1.2 Information Sources and Survey Methodology

The descriptions of vegetation communities, wildlife habitats, and potentially jurisdictional waters in this section are based on reconnaissance-level field surveys,[4] review of available biological resources survey reports encompassing portions of the project area, review of relevant literature, and review of databases and inventories maintained by resource agencies. The impact analysis described in this section is based on special-status species observations available to Environmental Science Associates (ESA) as of May 9, 2014.

ESA biologists conducted reconnaissance-level field surveys of the proposed pipeline alignments and facility sites on May 17, June 5, and September 20, 2012 (ESA, 2012) and on March 6, 7, and

[4] Reconnaissance-level field surveys are conducted for the purpose of generally describing the vegetation communities present within a project area and assessing the potential for special-status species to occur within the project area. Focused surveys are conducted to determine the presence or absence of a certain species or habitat type. Protocol-level surveys are a type of focused survey utilizing specific survey protocol as defined by a regulatory agency.

26, 2013, and May 9, 2013 (ESA, 2013), and April 24, 2014, and June 25, 2014 (ESA, 2014). ESA biologists surveyed all portions of the project area, except for a segment of the Monterey Pipeline that traverses the Presidio of Monterey and the Terminal Reservoir/ASR Pump Station site due to access restrictions. ESA identified and mapped existing plant communities, habitat types, and potentially jurisdictional wetlands and drainages in the project area. ESA biologists also documented plant and wildlife species observed during the reconnaissance surveys and evaluated the potential sensitive natural communities, special-status plant and animal species, and wildlife movement corridors to occur within the project area.

With the exception of the Presidio of Monterey and Terminal Reservoir/ASR Pump Station site, ESA confirmed and/or updated site descriptions included in the *CalAm Coastal Water Project Final Environmental Impact Report* (CPUC, 2009) and special-status plant surveys conducted by Denise Duffy & Associates, Inc. in 2010 (Denise Duffy & Associates, 2010a). The assessment of the segment of the proposed Monterey Pipeline alignment located within the Presidio of Monterey is based on the *Biological Assessment for the Monterey Bay Regional Desalination Project Monterey Presidio Pipeline* (Denise Duffy & Associates, 2010b). The assessment of the Terminal Reservoir/ASR Pump Station site is based on reconnaissance level surveys conducted of the site by Arcadis and URS September 2013, March 2014, April 2014, and June 2014 (URS, 2014a).

Other key references used in the preparation of this section include, but are not limited to, aerial photographs, topographic maps, soil survey maps, geological maps, USFWS National Wetland Inventory (NWI) maps (USFWS, 2014), climatic data, project plans, and the following:

- H. T. Harvey & Associates, 2005. *California American Water Company Monterey County Coastal Water Project Terrestrial Biological Resources Phase II Report*.
- Jones & Stokes, 2006. *Final Environmental Impact Report/Environmental Assessment for the Monterey Peninsula Water Management District Phase 1 Aquifer Storage and Recovery Project.* State Clearinghouse No. 2004121065. Prepared for the Monterey Peninsula Water Management District. Certified August 21, 2006.
- *Fort Ord Reuse Authority 2012. Draft Installation-Wide Multispecies Habitat Conservation Plan*. Prepared for by ICF International. March 2012.
- "Monterey Desal rare plant survey" email from Martha Lowe, Environmental Science Associates, to Erin Harwayne, Denise Duffy & Associates. (ESA, 2010);
- Special-status plant surveys conducted on the CEMEX site on April 24, 2014 by ESA and Zander Associates (Zander Associates, 2014).

Other sources of information include: applicable literature on biological resources in the Monterey region; the *Monterey County General Plan* (Monterey County, 2010); the CNPS on-line Electronic Inventory (CNPS, 2013); the USFWS official list of species occurring in Monterey County (USFWS, 2013); and the CDFW's California Natural Diversity Database (CNDDB; CDFW, 2015) special-status species records for the Moss Landing, Marina, Salinas, Seaside, Spreckels, Carmel Valley, Monterey, Mount Carmel, and Prunedale United States Geological Survey (USGS) 7.5-minute topographic quadrangles.

None of the proposed project components would be located in close proximity to the Carmel River, implementation of the proposed project would comply with SWRCB Order 95-10 and the proposed project would not increase the quantity of Carmel River water in CalAm's water supply portfolio for the Monterey District service area (Monterey District). As described in Section 3.4.4 in Chapter 3, Project Description, the proposed improvements to the Seaside Groundwater Basin Aquifer Storage and Recovery (ASR) system would not affect CalAm's maximum allowable surface water diversions from the Carmel River for injection into the Seaside Groundwater Basin. Rather, project implementation would secure replacement water supplies for the Monterey District, enabling CalAm to reduce its current diversions from the Carmel River system of 11,285 acre feet per year (afy) (equivalent to about 10.1 million gallons per day [mgd]) to its legal right to 3,376 afy (equivalent to about 3 mgd). Therefore, implementation of the proposed project would have a beneficial effect on stream flows in the Carmel River and the river's aquatic biological resources.

4.6.1.3 Regional Terrestrial Biological Resources

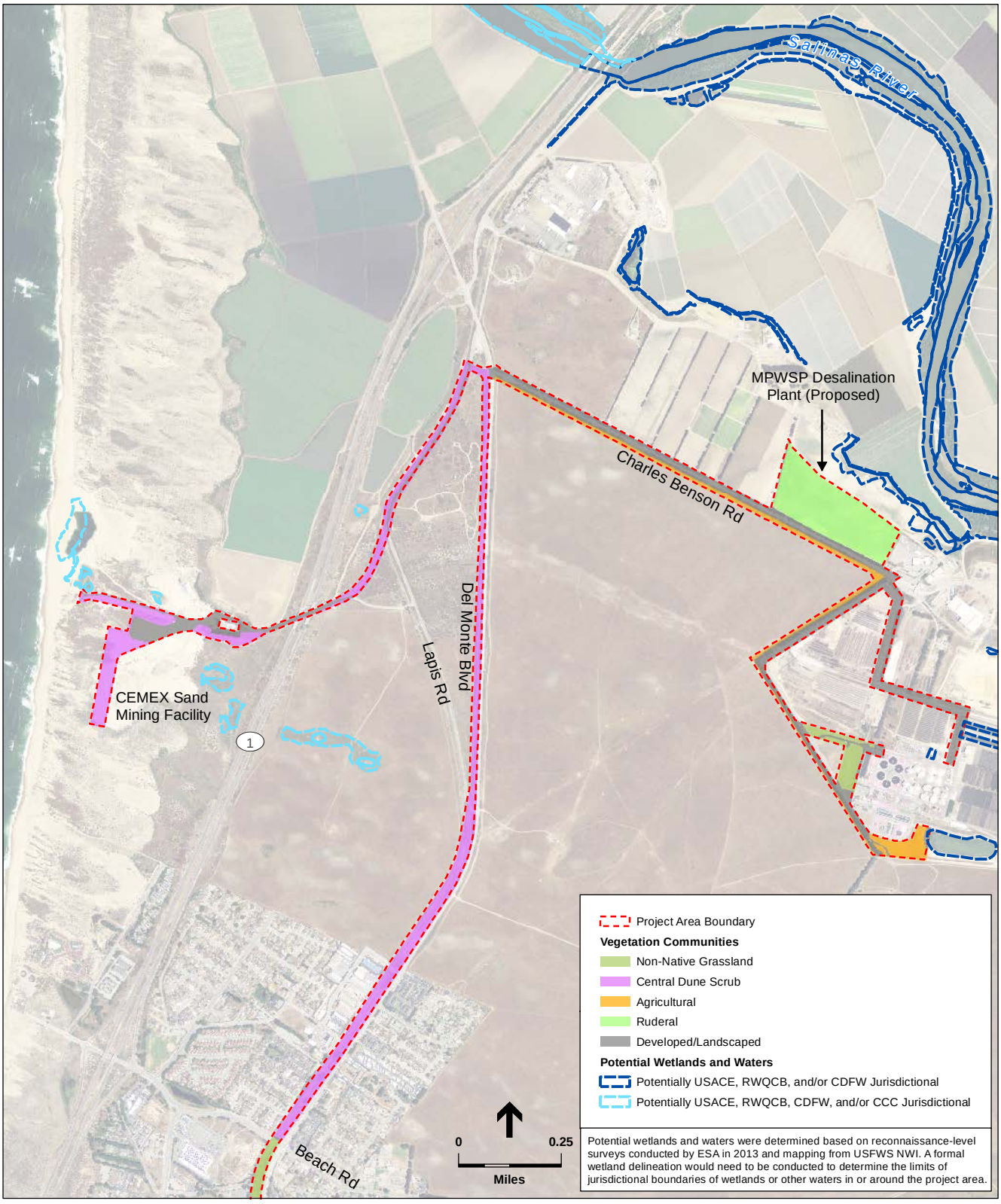
Monterey County is situated at the confluence of the San Francisco Bay, Central Coast, and South Coast Range floristic provinces. As a result, the flora of Monterey County is some of the most diverse in California. Monterey County represents the southern and northern population range limits of many rare species endemic to the northern and southern portions of the state, respectively.

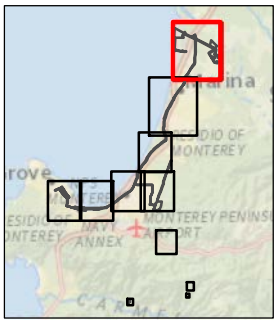
The project area is located within Monterey County and traverses coastal northern Monterey County from a point located approximately 2 miles south of the Salinas River to the Eardley Pump Station in Pacific Grove. Segments of the proposed pipeline alignments follow Highway 1 along at the confluence of stabilized back dune slopes and developed cities. The proposed slant well site is located within the CEMEX active mining area in northern Marina. In the vicinity of the proposed ASR facilities, the former Fort Ord military base comprises extensive areas of relatively undisturbed maritime chaparral, a unique plant community associated with stabilized Pleistocene sand dunes. The Monterey Pipeline is located within the urbanized cities of Seaside, Monterey, and Pacific Grove. The proposed interconnection improvements for the Highway 68 satellite water systems are located within low density residential and business areas in the forested hillsides above the Carmel River Valley.

In general, the project area is situated within 5 miles of the ocean on level to gently-sloped topography. With the exception of the proposed interconnection improvements along the Highway 68 corridor, which range between 400 and 800 feet in elevation, elevations within the other portions of the project area range from sea level to approximately 250 feet. Average annual precipitation in the City of Monterey is 20 inches; annual temperatures average 65 degrees Fahrenheit (NOAA, 2014).

4.6.1.4 Vegetation Communities and Habitat Types

The vegetation/habitat classification presented herein is based on field observations, the CDFW *List of Vegetation Alliances and Associates* (CDFG, 2010), and *A Manual of California Vegetation* (Sawyer et al., 2009). Plant communities generally correlate to wildlife habitats. See **Figures 4.6-1a, -1b, -1c, -1d, -1e, -1f, -1g,** and **-1h** for overview maps of vegetation communities in the project area. The figures are intended as a general guide; additional and more detailed information is included in the discussion below.



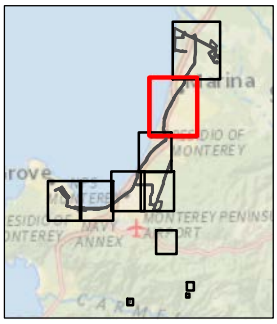


SOURCE: ESA, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-1a

Vegetation Communities and Potential Wetlands and Waters Within and Immediately Adjacent to the Project Area: Marina Area

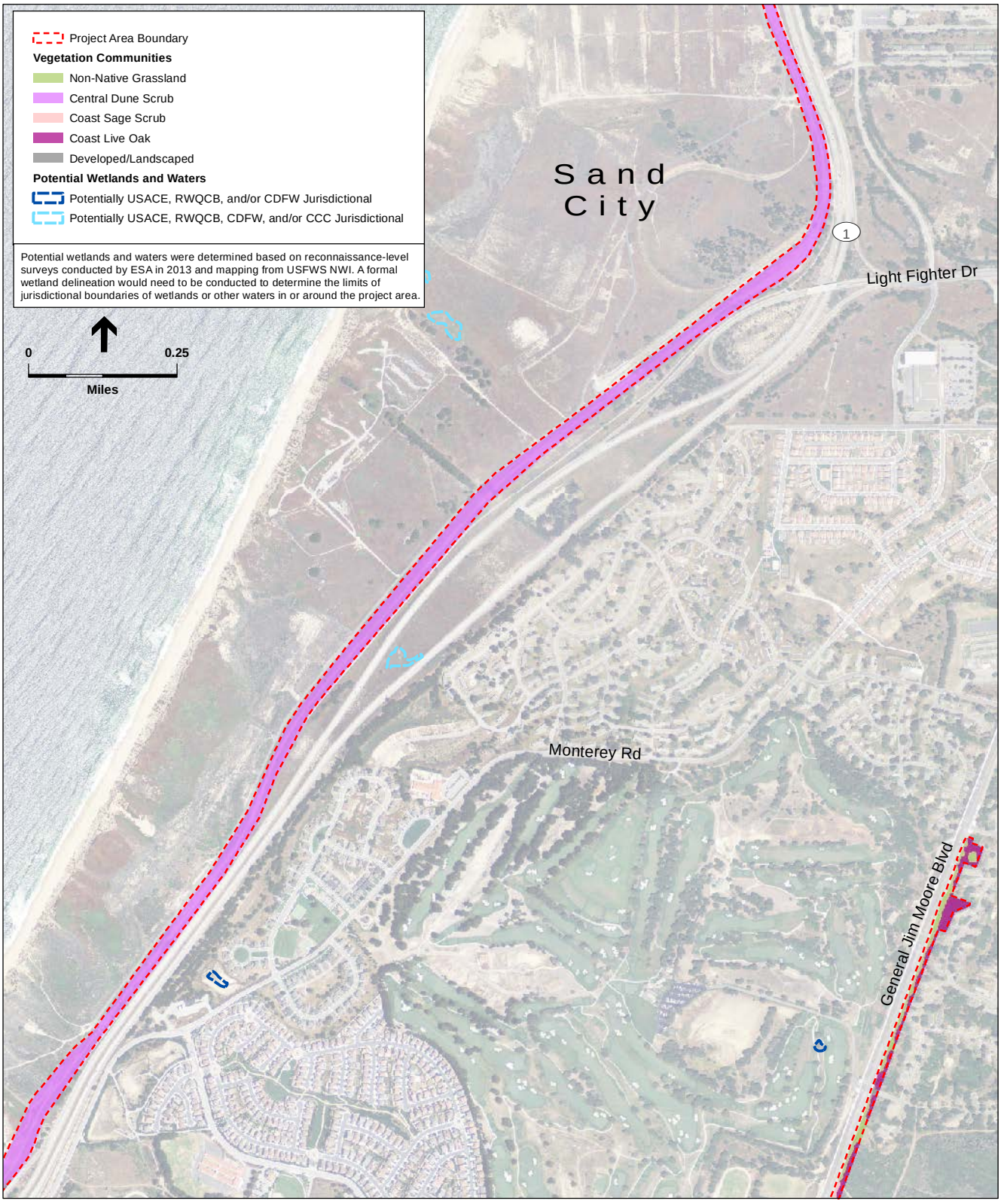


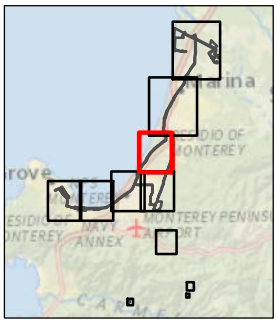
SOURCE: ESA, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-1b

Vegetation Communities and Potential Wetlands and Waters Within and Immediately Adjacent to the Project Area: Sand City North



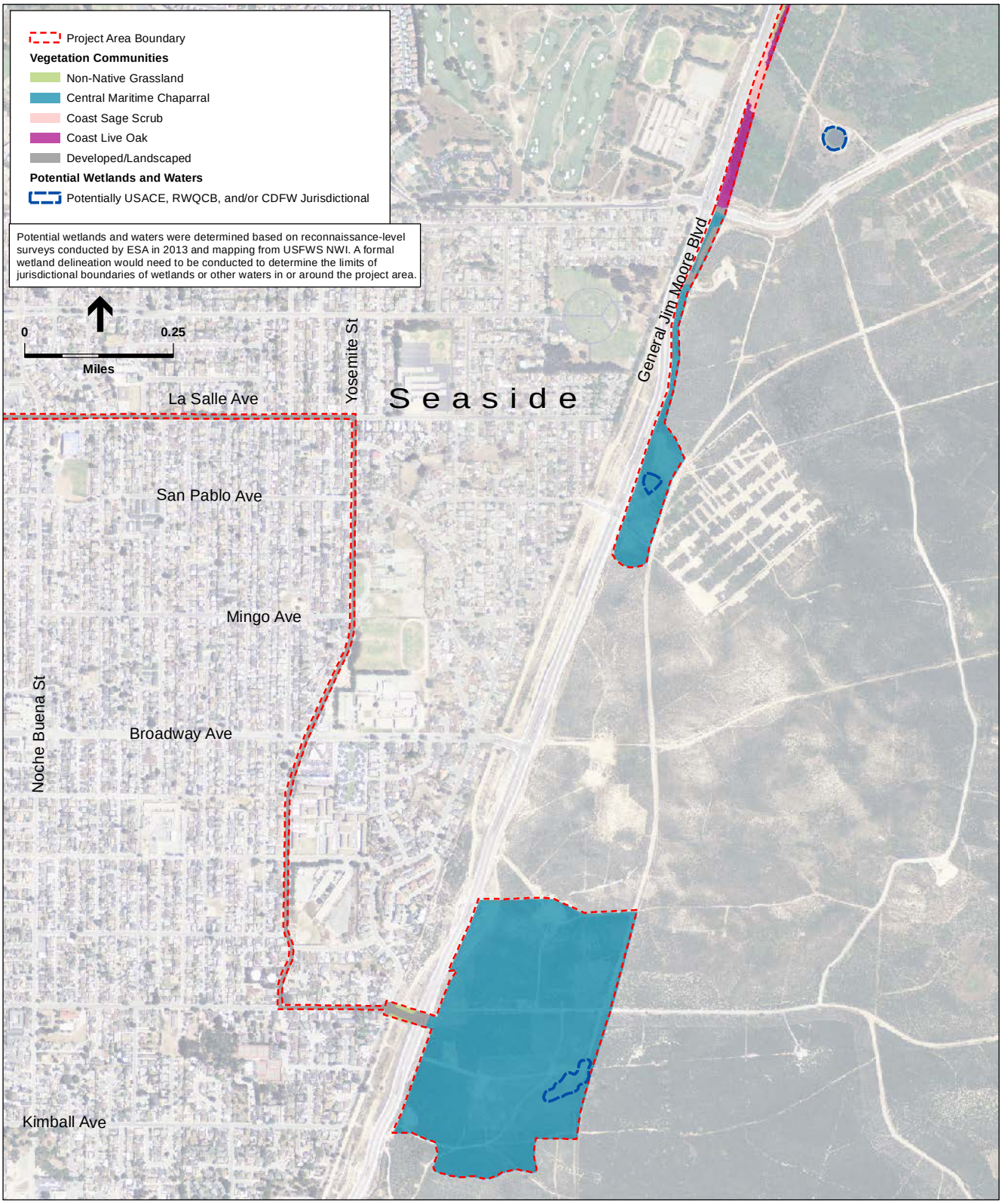


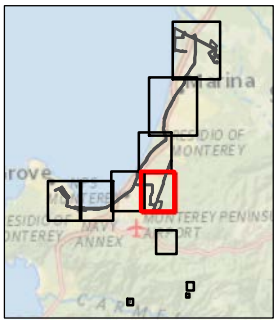
SOURCE: ESA, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-1c

Vegetation Communities and Potential Wetlands and Waters Within and Immediately Adjacent to the Project Area: Sand City Area



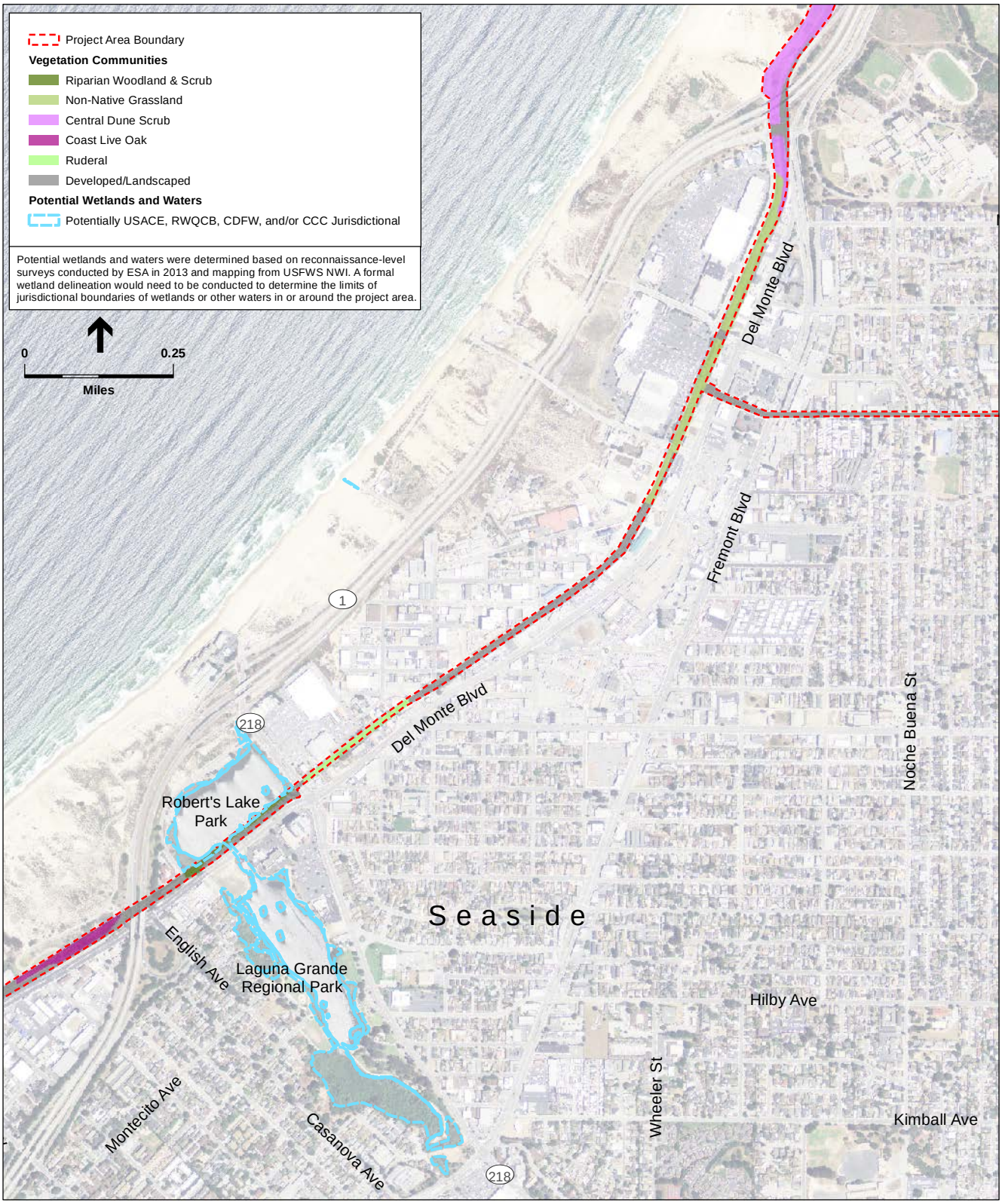


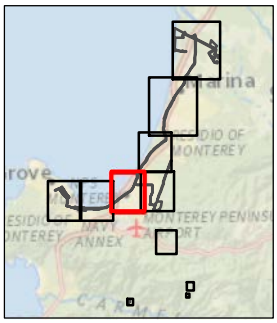
SOURCE: ESA, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-1d

Vegetation Communities and Potential Wetlands and Waters Within and Immediately Adjacent to the Project Area: East Seaside Area



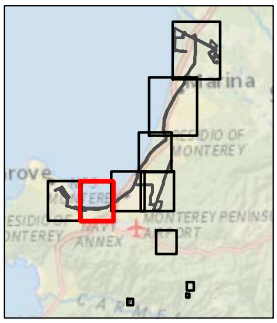


SOURCE: ESA, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-1e

Vegetation Communities and Potential Wetlands and Waters Within and Immediately Adjacent to the Project Area: Seaside Area

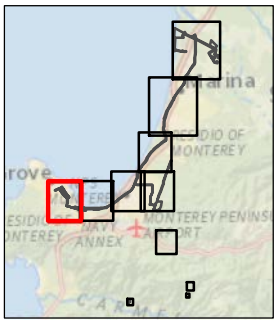


SOURCE: ESA, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-1f

Vegetation Communities and Potential Wetlands and Waters Within and Immediately Adjacent to the Project Area: Monterey East Area

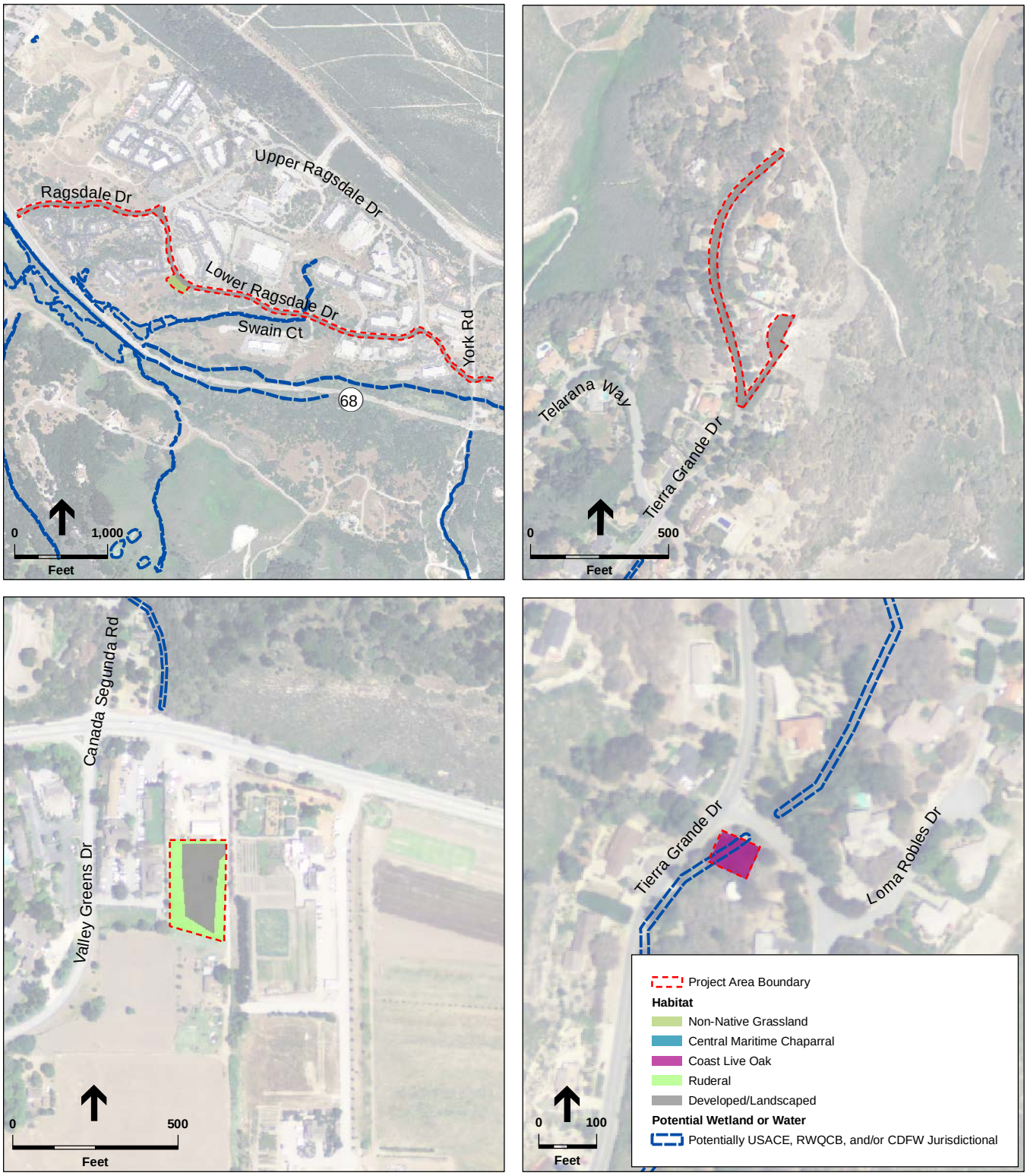


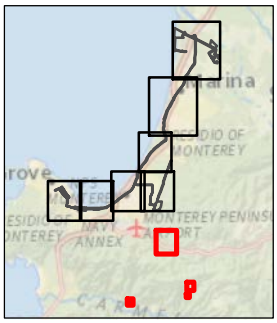
SOURCE: ESA, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-1g

Vegetation Communities and Potential Wetlands and Waters Within and Immediately Adjacent to the Project Area: Monterey Area





SOURCE: ESA, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-1h

Vegetation Communities and Potential Wetlands and Waters Within and Immediately Adjacent to the Project Area: Monterey and Unincorporated Monterey County Area

Vegetation communities and habitat types within the project area include: beach, non-native grassland, central dune scrub, central maritime chaparral, coastal sage scrub, riparian woodland and scrub, coast live oak woodland, eucalyptus stand, agricultural, ruderal, and developed/landscaped.

Beach

Beach occurs in the vicinity of the proposed subsurface slant well site in the northern portion of the project area. Beach consists of the sand particles along the active coastline that are continuously shifting from wind and ocean waves. Near the subsurface slant well site this habitat type extends from the shoreline of the Pacific Ocean inland to vegetated patches of central dune scrub habitat along the western boundary the CEMEX active mining area. Vegetation is generally absent from beach habitat due to wind and wave disturbance, but kelp, driftwood, and other debris that is washed onshore from wave action provide habitat for a variety of invertebrates. Many shorebirds forage for invertebrates on the beach or scavenge fish that have washed onshore. Common birds found along the beach include western sandpiper (*Calidris mauri*), least sandpiper (*Calidris minutilla*), and many species of gull (*Larus* spp.). Beaches within the project area also provide habitat for western snowy plover (*Charadrius alexandrinus nivosus*), a federally endangered bird species and a California species of special concern.

Non-Native Grassland

Non-native grassland occurs at various locations throughout the project area. It occurs by itself and interspersed with a variety of other vegetation communities, such as oak woodland, central maritime chaparral, central dune scrub, and ruderal areas. The largest expanses of non-native grassland within the project area occur north of the intersection of Del Monte Boulevard and Highway 1 in Marina, along the Monterey Peninsula Recreational Trail in the vicinity of Reservation Road, and at the existing Monterey Regional Water Pollution Control Agency (MRWPCA) Regional Wastewater Treatment Plant. Within the project area this community is comprised of a variety of non-native annual grasses, introduced weedy forbs, and a few native grasses and forbs. Common dominants of non-native grassland in the project area include Italian ryegrass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), annual fescue (*Festuca myuros*), wall barley (*Hordeum murinum*) and wild oat (*Avena fatua*); associated forbs include filaree (*Erodium botrys*), English plantain (*Plantago lanceolata*), wild radish (*Raphanus sativus*), shortpod mustard (*Hirschfeldia incana*), prickly sow thistle (*Sonchus asper*), deerweed (*Acmispon glaber*), and iceplant (*Carpobrotus edulis, C. chilensis*). The occasional native grass such as purple needlegrass (*Stipa pulchra*) and creeping wildrye (*Elymus triticoides*) also occur. Some shrubs and trees, including the native coyote brush (*Baccharis pilularis*), Monterey cypress (*Hesperocyparis macrocarpa*), and non-native eucalyptus (*Eucalyptus globulus*, and others), are also found sporadically within the grasslands. In general, the diversity of plant species within non-native grassland varies greatly with levels of disturbance; on relatively undisturbed sites, remnant inclusions of coastal prairie may occur (none were observed within the project area). Coastal prairie is one of the most endangered ecosystems in the United States and is given a high priority for conservation by the CDFW. Coastal prairie contains a significant proportion of native perennial grasses, primarily purple needlegrass and California oatgrass (*Danthonia californica*), annual grass species, and a high diversity of native forbs, including several special-status species.

Annual grassland provides little cover for wildlife, yet numerous species forage, and several species breed, in this community. Small mammals such as deer mice (*Peromyscus maniculatus*), California ground squirrels (*Spermophilus beecheyi*), and Botta's pocket gophers (*Thomomys bottae*) are common residents in annual grasslands in Monterey County. Larger mammals such as coyotes (*Canis latrans*) and bobcats (*Lynx rufus*) occasionally forage in this community as well.

A variety of birds use annual grasslands as foraging habitat, including savannah sparrows (*Passerculus sandwichensis*), horned larks (*Eremophila alpestris*), western meadowlarks *(Sturnella neglecta*), lesser goldfinches *(Carduelis psaltria*), and barn swallows (*Hirundo rustica*). Western meadowlarks, horned larks, and mourning doves (*Zenaida macroura*) may nest in grasslands in the project area. Raptors, such as red-tailed hawk (*Buteo jamaicensis*) and northern harrier *(Circus cyaneus*) commonly forage over grasslands as well. Some species of raptors, such as red-tailed hawks and white-tailed kite (*Elanus leucurus*), may occasionally nest in trees within the grassland. Western fence lizards *(Sceloporus occidentalis*), gopher snakes (*Pituophis melanoleucus*), and other snakes are also likely to occur in this community in the project area.

Central Dune Scrub

Central dune scrub occurs in patches from the northern project area south to the city of Monterey. This community type is generally disturbed within the project area, but the level of disturbance varies throughout the project area.

Coastal dune scrub is found in the northern portion of the project area along Lapis Road and Del Monte Boulevard, along the Monterey Peninsula Recreational Trail between Marina and Seaside, in the dunes along the western boundary of the CEMEX active mining area (i.e., the vegetated patches between the active mining area and the beach), in undisturbed sections of the CEMEX active mining area, and along the CEMEX access road. These areas contain native dune scrub species, but also support a variety of non-native and invasive species and often have high cover of iceplant. Typical native shrubs found throughout the disturbed dune scrub habitat include California sagebrush (*Artemisia californica*), coast buckwheat (*Eriogonum latifolium*), deerweed, California lilac (*Ceanothus* spp.), mock heather (*Ericameria ericoides*), and beach aster (*Corethrogyne filaginifolia*). Non-native cover typically includes non-native grasses (wild oat, Mediterranean barley, and Italian ryegrass), iceplant, and other weedy species. Some typical foredune species, such as beach evening primrose (*Camissonia cheiranthifolia*) and sea rocket (*Cakile maritima*), occur along the CEMEX access road as the central dune scrub transitions to the beach.

The composition of dune scrub vegetation transitions throughout the project area from areas dominated by non-native species (within residential neighborhoods in Marina and between Imjin Parkway and Light Fighter Drive in Sand City) to areas with higher native cover (in the dunes between the CEMEX active mining area and the beach, along the CEMEX access road, Lapis Road, Del Monte Boulevard north of Beach Road, the Monterey Peninsula Recreational Trail between Imjin Parkway and approximately Reindollar Avenue, and the Monterey Peninsula Recreational Trail south of Light Fighter Drive).

Monterey spineflower (*Chorizanthe pungens* var. *pungens*) has been observed within central dune scrub within the project area (ESA, 2010; ESA, 2012). Central dune scrub, within the project area, is likely to support several reptile species, including southern alligator lizard (*Elgaria multicarinata*), western fence lizard, and black legless lizard (*Anniella pulchra nigra*). Small mammals such as deer mice and brush rabbits (*Sylvilagus bachmani*), provide prey for nonnative red foxes (*Vulpes vulpes regalis*). White-crowned sparrows (*Zonotrichia leucophrys*) are probably the most abundant breeding bird in this community. Horned larks and song sparrows (*Melospiza melodia*) are among other birds are found in this community. If the host plant (coast buckwheat) is present, Smith's blue butterfly (*Euphilotes enoptes smithi*) may also occur in this community.

Central Maritime Chaparral

Central maritime chaparral is a regionally unique plant community limited to areas of sandy soils subject to summer fog. It is found in relatively small patches throughout its range along the central coast. It is dominated by endemic species of manzanita (*Arctostaphylos* spp.) and California lilac (*Ceanothus* spp.), and supports a high proportion of other rare and endangered plants and wildlife. The former Fort Ord military base encompasses some of the largest, most intact areas of maritime chaparral remaining in the central coast. Maritime chaparral in the project area is unique due to its association with relict sand dunes of the mid-Pleistocene era, an extremely rare soil substrate that has been much reduced by urban development in the communities of Marina and Seaside. In addition, the overall viability of maritime chaparral is likely declining due to long-term suppression of fire and other natural disturbances, which help maintain the health and diversity of this plant community. Studies show that long-term absence of fire within central maritime chaparral may lead to the community's transition to oak woodland (Van Dyke et al., 2001). Many annual and herbaceous perennial species depend on fire and other disturbance to control encroachment of woody species.

Within the project area, central maritime scrub occurs along the east side of General Jim Moore Boulevard and south of Coe Avenue in the former Fort Ord military base (specifically, at the proposed Terminal Reservoir/ASR Pump Station site and eastern terminus of the Transfer Pipeline, and at the southern terminus of the construction area for the ASR facilities where water produced during development of the ASR wells would be conveyed and percolated). Within the project area, this community exists as a mosaic of disturbed and non-disturbed variations, with most of the disturbed areas located near General Jim Moore Boulevard and adjacent to existing access roads within the former Fort Ord military base. These areas were likely disturbed during road construction and military operations. The non-disturbed areas are dominated by shaggy-barked or woolly-leaf manzanita (*Arctostaphylos tomentosa* ssp. *tomentosa*), sandmat manzanita (*Arctostaphylos pumila*), sticky monkeyflower (*Mimulus aurantiacus*), chamise (*Adenostoma fasciculatum*), black sage (*Salvia mellifera*), and poison oak (*Toxicodendron diversilobum*) with many other perennials and shrubs common throughout. The disturbed areas contain many of the same species but have higher cover of deerweed, iceplant, bush lupine (*Lupinus* spp.), and non-native grasses. Additionally, these disturbed areas contain higher cover of unvegetated sandy soil. A variety of special-status plants have been documented within the former Fort Ord military base in and around the proposed Terminal Reservoir site including sandmat manzanita, Monterey spineflower, seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*), Eastwood's goldenbush (*Ericameria fasciculata*), Kellogg's

horkelia (*Horkelia cuneata* ssp. *sericea*), and sand gilia, (Denise Duffy & Associates, 2010a; Fort Ord Reuse Authority, 2012).

Wildlife species likely to occur here include a variety of small reptiles, such as western fence lizards, alligator lizards, California horned lizards (*Phrynosoma coronatum frontale*), and California striped racer (*Coluber lateralis lateralis*), as well as a variety of small mammals, including deer mice, brush mice, and jackrabbit (*Lepus californicus*). Birds likely to occur here include the California thasher (*Toxostoma redivivium*), Western scrub-jay (*Aphelocoma californica*), wrentit (*Chamaea fasciata*), and Anna's hummingbird (*Calypte anna*).

Coastal Sage Scrub

In California, coastal sage scrub occurs west of the Sierra Nevada on dry soils and often in proximity to chaparral or other scrub communities. Within the project area, coastal sage scrub occurs on a single south-facing slope located east of General Jim Moore Boulevard and north of Coe Avenue. This south-facing slope is surrounded by coast live oak woodland. Dominant plant species within coast sage scrub include California sage and black sage. Disturbed portions of coast sage scrub located along the General Jim Moore Boulevard road shoulder include non-native grasses and iceplant. The wildlife species commonly found in coastal sage scrub are the same as those noted for central maritime chaparral, above.

Riparian Woodland and Scrub

Riparian woodland and scrub is often associated with perennial water sources such as lakes and rivers. Within the project area riparian woodland and scrub occurs along the edges of the pond at Locke-Paddon Park in Marina and along Laguna del Rey in Seaside. Willows (*Salix* spp.) are the dominant trees at both of these locations. Numerous shrubs, herbs, and vines also occur in the understory of this community, including mulefat (*Baccharis salicifolia*) and native and non-native blackberries (*Rubus ursinus, R. armeniacus*).

Both of these sites are located in incorporated areas in park settings and are subject to disturbance from vehicle and pedestrian traffic. However, they offer cover and resources for a variety of wintering and breeding birds, such as yellow-rumped warblers (*Dendroica coronata*), warbling vireos (*Vireo glivus*), orange-crowned warblers (*Vermivora celata*), and Wilson's warblers (*Wilsonia pusilla*). The mixed understory in this community supports a variety of small mammals and reptiles, including raccoon (*Procyon lotor*), deer mice, and coast garter snake (*Thamnophis elegans terrestris*).

Coast Live Oak Woodland

Within the project area, coast live oak woodland is located along General Jim Moore Boulevard between Ardennes Circle and Coe Avenue and along Del Monte Avenue in the vicinity of Highway 1 in Monterey. Coast live oak woodland also occurs just outside of the project area along the roadside in the vicinity of the proposed Ryan Ranch–Bishop and Main System–Hidden Hills Interconnection Improvements. In the vicinity of the project area coast live oak woodland occurs in sandy soils and is dominated by coast live oak (*Quercus agrifolia*) with the occasional

eucalyptus, Monterey pine (*Pinus radiata*), or Monterey cypress. The understory is typically non-native grassland. In the vicinity of General Jim Moore Boulevard, coast live oak woodland forms a mosaic with central maritime chaparral and coastal sage scrub communities and shrub species typically found in these two communities also occur in the adjacent oak woodland.

In Monterey County, coast live oak woodlands support a considerable diversity of wildlife species. Mammals likely to be found here include western gray squirrel (*Sciurus griseus*) and Monterey dusky-footed woodrat (*Neotoma fuscipes luciana*), as well as other small rodents. Mule deer (*Odocoileus hemionus*) also occur in oak woodlands. Several avian species rely heavily on the acorns for food, including acorn woodpeckers (*Melanerpes formicivorous*), western scrub-jays, and California quail (*Callipepla californica*). Chestnut-backed chickadee (*Poecile rufescens*), oak titmouse (*Baeolophus inornatus*), Hutton's vireo (*Vireo huttoni*), dark-eyed junco (*Junco hyemalis*), ash-throated flycatchers (*Myiarchus tuberculifer*), and Nuttall's woodpecker (*Picoides nuttallii*) are among other birds that nest in this community. Several species of amphibians, such as the arboreal salamander (*Aneides lugubris*), can be found in coast live oak woodlands, in which moisture is retained under fallen wood and in crevices in the oaks. Reptiles may include the ringneck snake (*Diadophis punctatu*s) and western skink (*Eumeces skiltonianus*).

Eucalyptus Stand

Eucalyptus stands occur along Del Monte Avenue between Palo Verde Avenue and Sloat Avenue. Mature eucalyptus (*Eucalyptus* spp.) form a dense canopy in these areas. The occasional coast live oak and Monterey cypress also occur in this area. Beginning in the late 1800s eucalyptus was widely planted throughout California for timber, shade, or as a windbreak. The eucalyptus stand understory includes unvegetated areas as well as a mix of mowed lawn, non-native annual grasses, and non-native invasive species such as iceplant and periwinkle (*Vinca major*). Mature eucalyptus groves provide nesting habitat for a number of raptors, including red-tailed hawks (*Buteo jamaicensis*), red-shouldered hawks (*Buteo lineatus*), and great horned owls (*Bubo virginianus*). Eucalyptus may also provide roosting sites for Monarch butterfly (*Danaus plexippus*)[5]. However, no roosts have been identified within the project area boundary.

Agricultural

Agricultural lands are located in the northern project area along Charles Benson Road, Lapis Road, and Del Monte Boulevard. These lands provide little or no habitat for native plants and wildlife as they are regularly manipulated as crops are planted, harvested, rotated, and irrigated, or these lands are grazed. Vegetation in these areas consists primarily of non-native species adapted to disturbance, such as wild oat, bromes, mustards (*Brassica nigra* and *Hirschfeldia incana*), mallows (*Malva* spp.), and filarees.

Agricultural areas can support wildlife species that have adapted to disturbance, but generally support few wildlife species because of their lack of diversity in vegetation and foraging

[5] Listed on CDFW's Special Animals List (January 2011) but does not have a state or federal status. The Special Animals List is a list of all taxa tracked by the CNDDB, regardless of their legal or protection status. CDFW considers the taxa on the list to be those of greatest conservation need.

opportunities. California ground squirrels often occur along margins of cropland, and raptors such as red-tailed hawks often forage for ground squirrels over agricultural lands. Fallow fields can attract other foraging birds, including Brewer's blackbirds (*Euphagus cyanocephalus*) and killdeer (*Charadrius vociferus*).

Ruderal

Ruderal areas are not currently in active use, but have been subject to intense or recurring disturbance, generally through removal or other alteration of all native vegetation, alteration of topography, soil compaction, and the addition or removal of man-made features such as paving, buildings, and channelization of watercourses. Depending on the intensity and type of disturbance and time since disturbance, ruderal areas can remain relatively barren or become revegetated with primarily non-native weedy species. Within the project area, ruderal areas are located near Charles Benson Road at the proposed MPWSP Desalination Plant site, along Del Monte Boulevard at Reservation Road, and along Del Monte Boulevard at Canyon Del Rey Boulevard.

All ruderal areas are dominated by non-native weedy vegetation; however the dominant species varies depending on the site characteristics at each location. Soils at the proposed MPWSP Desalination Plant site are very sandy. Dominants in the vegetated portion of the site include field mustard (*Brassica rapa*), radish (*Raphanus sativus*), dwarf nettle (*Urtica urens*), and common chickweed (*Stellaria media*). Iceplant is the dominant species at the ruderal area near the intersection of Del Monte Boulevard and Reservation Road. Unidentifiable herbicide-treated weeds occur at the ruderal area near the intersection of Del Monte Boulevard and Canyon Del Rey Boulevard.

Ruderal communities do not support the diversity of native plant or wildlife that is characteristic of undisturbed natural communities, but many native wildlife species have adapted to ruderal areas: red-tailed hawk, American crow (*Corvus brachyrhynchos*), white-crowned sparrow (*Zonotrichia leucophrys*), American goldfinch (*Spinus tristis*), raccoon (*Procyon lotor*), and coyote (*Canis latrans*) are examples. Non-native animal species that are associated with ruderal communities include European starling (*Sturnus vulgaris*), rock dove (*Columba livia*), Virginia opossum (*Didelphis virginiana*), and Norway rat (*Rattus norvegicus*).

Developed/Landscaped

Developed and landscaped areas occupy much of the project area, particularly within the cities of Seaside and Monterey, and along Charles Benson Road in unincorporated Monterey County. Developed areas include paved and dirt roadways and trails, parking lots, buildings, and other man-made features. Landscaped features occur in association with these developed features and include gardens, parks, lawns, and landscaping trees and shrubs, such as planted stands of Monterey cypress and Monterey pine.

As with agricultural areas, developed and landscaped areas can support wildlife species that have adapted to site disturbance but native plants are often absent and wildlife abundance and diversity are generally low. Striped skunks, raccoons, and Virginia opossums occur regularly in urban areas. Birds adapted to the urban landscape include house finches (*Carpodacus mexicanus*),

northern mockingbirds (*Mimus polyglottos*), mourning doves, European starlings, house sparrows (*Passer domesticus*), and rock doves.

4.6.1.5 Sensitive Natural Communities

Sensitive natural communities (or special-status native plant communities) are designated as such by various resource agencies, such as CDFW, or in local policies and regulations and are generally considered to have important functions or values for wildlife or humans and/or are recognized as declining in extent or distribution and are considered threatened enough to warrant some sort of protection. For example, many local agencies in California consider protection of oak woodlands important for their value as an ecosystem and federal, state, and most local agencies classify wetlands and riparian areas as sensitive communities. The CNDDB tracks communities that are considered to be important for habitat conservation; these sensitive natural communities are considered special-status for the purposes of CEQA analysis.

The following communities occur in the project area and are considered special-status natural communities for the purposes of this analysis: beach central maritime chaparral, central dune scrub, coast live oak woodland, and riparian woodland and scrub. Section 4.6.1.10, Sensitive Terrestrial Biological Resources in the Project Area, below, describes the distribution of these communities in the project area.

4.6.1.6 Wetlands and Other Waters

Wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. The importance and sensitivity of wetlands has increased as a result of their value as recharge areas and filters for water supplies and widespread filling and destruction to enable urban and agricultural development.

USACE jurisdiction typically extends to the limit of the wetland, as defined by the presence of hydrophytic vegetation, hydric soils, and wetlands hydrology. In contrast, CCC jurisdiction for wetlands may extend to the limit of any one of the above parameters and therefore typically is much broader than USACE jurisdiction. However, the CCC only has jurisdiction over wetlands and waters located within the coastal zone. Additionally, the RWQCB also regulates wetlands, other waters of the U.S., and waters of the State. Federal and state definitions of wetlands and waters are further detailed in Section 4.6.2 Regulatory Framework.

Wetlands or waters potentially regulated by the USACE, RWQCB, and/or CCC were mapped within, or in close proximity to, the project area during field surveys conducted by ESA in 2013 and 2014 for the MPWSP (ESA, 2013, 2014). Four potentially jurisdictional wetlands and/or waters occur within the MPWSP project area boundary. These potential wetland or other waters are shown on **Figures 4.6-1a** through **4.6-1h**. These include two riparian woodland and scrub areas at the edge of the pond at Locke-Paddon Park in Marina and along Laguna del Rey in Seaside, respectively. An approximately 400-square-foot seasonal wetland is located in a roadside depression south of Reservation Road between Del Monte Boulevard and Marina Drive. This seasonal wetland is dominated by sedge (*Carex* sp.) and non-native annual grasses. Additionally,

the open water connection between Laguna del Rey and Laguna Grande Regional Park may be defined as a water of the U.S./state. A formal wetland delineation would need to be conducted to determine the limits of jurisdictional wetlands and waters within the project area.

The USFWS NWI[6] was queried to identify wetlands and other surface waters that have been mapped within, or in close proximity to, the project area. The NWI data represents reconnaissance-level information on the location, type, and size of surface waters at a scale of 1:24,000. Due to the scale of the NWI mapping and because the definition of wetlands can vary among regulatory agencies, a formal wetland delineation would need to be conducted to determine the limits of jurisdictional wetlands and waters mapped by the NWI. Several potential jurisdictional wetlands and/or other waters have been mapped within, or in close proximity to, the project area. These features are shown on **Figures 4.6-1a** through **4.6-1h** and described below.

The Pacific Ocean is considered a water of the U.S. and a water of the State. The construction work area for the subsurface slant wells would occur within the vicinity of the Pacific Ocean. The CEMEX dredging pond and settling ponds are located approximately 250 and 30 feet north of the western end of the CEMEX access road, respectively, and are mapped as freshwater ponds by the NWI. Additionally, three drainage features mapped as freshwater emergent wetlands by the NWI are located approximately 600, 1,000, and 1,200 feet south of the CEMEX access road, respectively. The Castroville Seawater Intrusion Project (CSIP) pond and two additional Monterey Regional Water Pollution Control Agency Regional Wastewater Treatment Plant ponds located at the eastern terminus of the proposed Salinas Valley Return Pipeline and Brine Discharge Pipeline alignments are mapped as freshwater ponds by the NWI. However, since these are active treatment ponds, they are not considered potential waters of U.S./waters of the State. A drainage ditch, mapped as freshwater forested/shrub wetland by the NWI, is located approximately 250 feet north of the proposed 25-acre MPWSP Desalination Plant site. The Salinas River, which is mapped as riverine and freshwater forested/shrub wetland by the NWI, is located approximately 850 feet north of the proposed MPWSP Desalination Plant site. A potential wetland, mapped as freshwater emergent wetland by the NWI, occurs approximately 250 feet west of Lapis Road and 1,300 feet north of the CEMEX access road near the proposed Source Water Pipeline. A few potential wetlands, mapped as freshwater pond, freshwater emergent wetland, and riverine by the NWI, are located between approximately 400 feet and 1,500 feet west of the proposed Transmission Main alignment. Del Monte Lake and El Estero Lake, located within 100 feet of the proposed Monterey Pipeline near the Naval Postgraduate School, are mapped by the NWI as freshwater pond and freshwater forested/shrub wetland, respectively. Three wetland features mapped by the NWI occur within the vicinity of the ASR facilities: one is a depression located west of General Jim Moore Boulevard, approximately 0.25 mile south of Coe Avenue. This feature is located in upland sandy maritime chaparral and is not anticipated to be a water of the U.S./water of the State. Another feature is mapped by the NWI as freshwater emergent wetland occurs west of General Jim Moore Boulevard and south of McClure Way, approximately 650 feet west of the proposed ASR Conveyance Pipelines. Another feature mapped by the NWI as freshwater pond occurs

6 The NWI is a nationwide inventory of wetlands and other surface waters that is compiled by the USFWS to provide information on the distribution and type of wetlands and aid in conservation efforts.

approximately 800 feet east and upgradient of the proposed ASR Conveyance Pipelines. A feature mapped by the NWI as a freshwater emergent wetland occurs within the Terminal Reservoir/ASR Pump Station site. A drainage feature mapped as freshwater forested/shrub wetlands by the NWI is located within the Ryan Ranch-Bishop Interconnection Improvements site. From aerial photographs, the drainage appears to pass through a culvert underneath Lower Ragsdale Drive near the intersection of Lower Ragsdale Drive and Ryan Court. Another potential wetland drainage is mapped by the NWI approximately 800 feet downslope of the Main System-Hidden Hills Interconnection Improvements site. Based on the NWI mapping, this wetland drainage is located beneath or immediately adjacent to the Middle Tierra Grande Booster Station; however, it was not observed during surveys conducted by ESA in 2013 (ESA, 2013).

Wild and Scenic Rivers

The federal Wild and Scenic Rivers Act was enacted by Congress in 1968 for the purpose of preserving the free-flowing characteristics and outstanding remarkable values of designated rivers while allowing uses compatible with the management goals of designated rivers. The categories of outstanding remarkable values include scenic, recreational, geologic, fish and wildlife, historic, and cultural values. The California Wild and Scenic Rivers Act of 1972 is modeled after the federal Wild and Scenic Rivers Act. There are no designated wild and scenic rivers within the project area.

4.6.1.7 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.

The majority of the project area is located within developed areas and would not serve as wildlife movement corridors. Lands north of Marina are used for agricultural purposes, but may serve as a movement corridor between coastal and inland areas for species adapted to agricultural disturbance such as raptors and songbirds.

4.6.1.8 Special-Status Species

For the purposes of this EIR, "special-status species" include candidate, sensitive, or special status species identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Specifically, special-status species include the following, which includes those species listed in Section 15380(b), Section 15380(c), and Section 15380(d) of the CEQA Guidelines[7]:

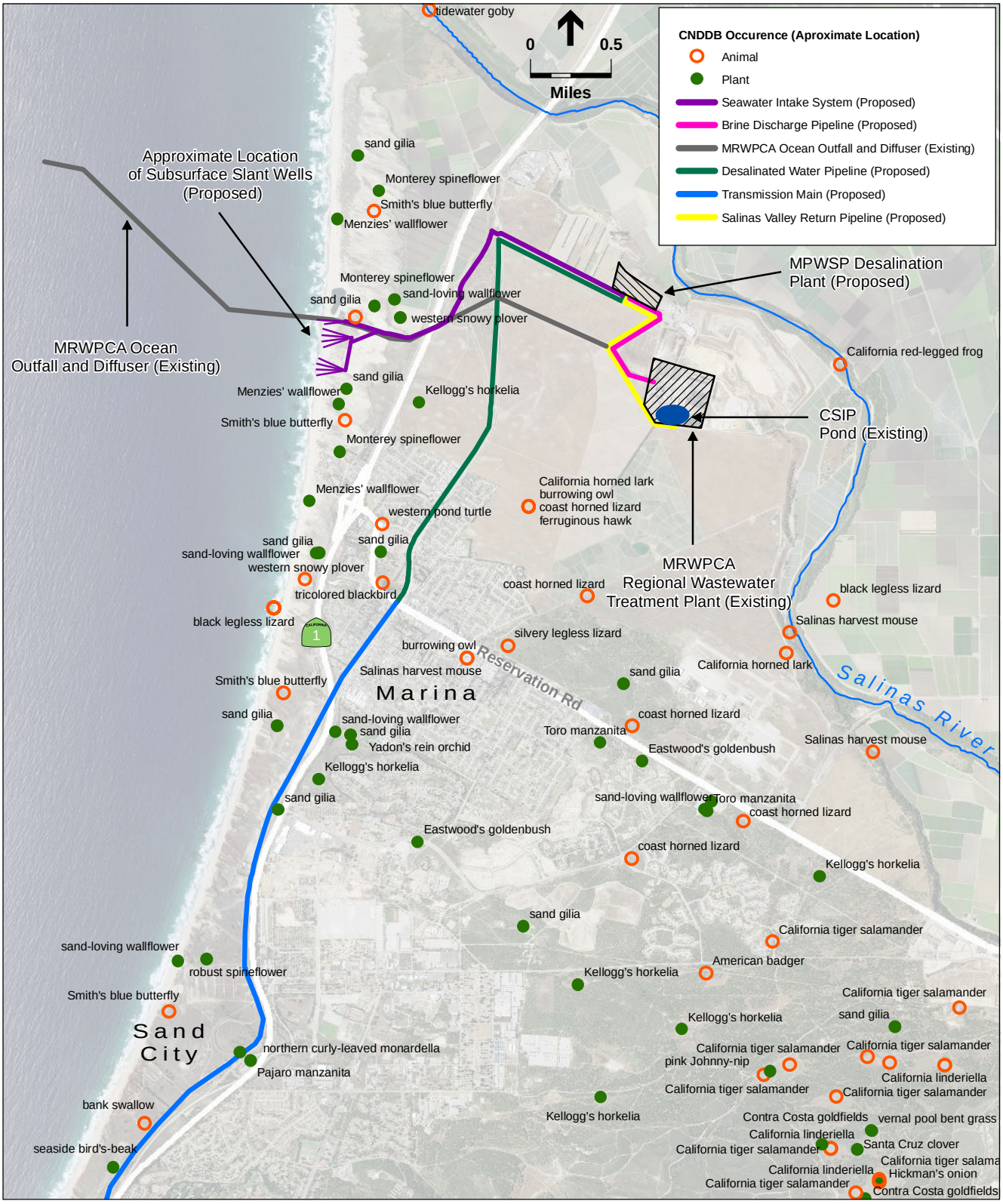
- Plant and wildlife species listed as rare, threatened, or endangered under the federal or state Endangered Species Acts;
- Candidate species (species that are proposed for listing under either federal or state law);
- Species designated by CDFW as Species of Special Concern or fully protected species;
- Species protected by the federal Migratory Bird Treaty Act (MTBA) (16 U.S.C. 703-711) and California Fish and Game Code;
- Bald and golden eagles protected by the federal Bald Eagle Protection Act (16 U.S.C. 668); and
- Species that may be considered rare or endangered pursuant to Section 15380 of the CEQA Guidelines (including plants species with California Rare Plant Ranks of 1, 2, 3, or 4).

Data on species occurrence was obtained from the CDFW, the CNDDB, the CNPS Electronic Inventory, the USFWS species list, published biological literature of the region, surveys previously conducted for the Coastal Water Project, reconnaissance-level surveys conducted by ESA in 2013 and 2014 for this EIR, and surveys conducted in 2013 and 2014 by Arcadis and URS (CDFW, 2015; CNPS, 2013; USFWS, 2013; H. T. Harvey & Associates, 2005; Denise Duffy & Associates, 2010b; ESA, 2013, 2014; URS, 2014a; URS, 2014b). **Table F-1 in Appendix F** lists the special-status plant and animal species that have been documented to occur or have the potential to occur in suitable habitat within the project area. The table also includes an assessment of potential to occur within the project area based on previous special-status record locations and current site conditions. Special-status species with a moderate or higher potential to occur within the project area are discussed in detail below. **Figures 4.6-2a, -2b,** and **-2c** show the CNDDB occurrence records in the project vicinity.

[7] CEQA Guidelines Section 15380(b) states "A species of animal or plant is: (1) "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or (2) "Rare" when either: (A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or (B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act."

CEQA Guidelines Section 15380(c) states: "A species of animal or plant shall be presumed to be endangered, rare or threatened, as it is listed in: (1) Sections 670.2 or 670.5, Title 14, California Code of Regulations; or (2) Title 50, Code of Federal Regulations Section 17.11 or 17.12 pursuant to the Federal Endangered Species Act as rare, threatened, or endangered."

CEQA Guidelines Section 15380(d) states: "A species not included in any listing identified in subdivision (c) shall nevertheless be considered to be endangered, rare or threatened, if the species can be shown to meet the criteria in subdivision (b)."

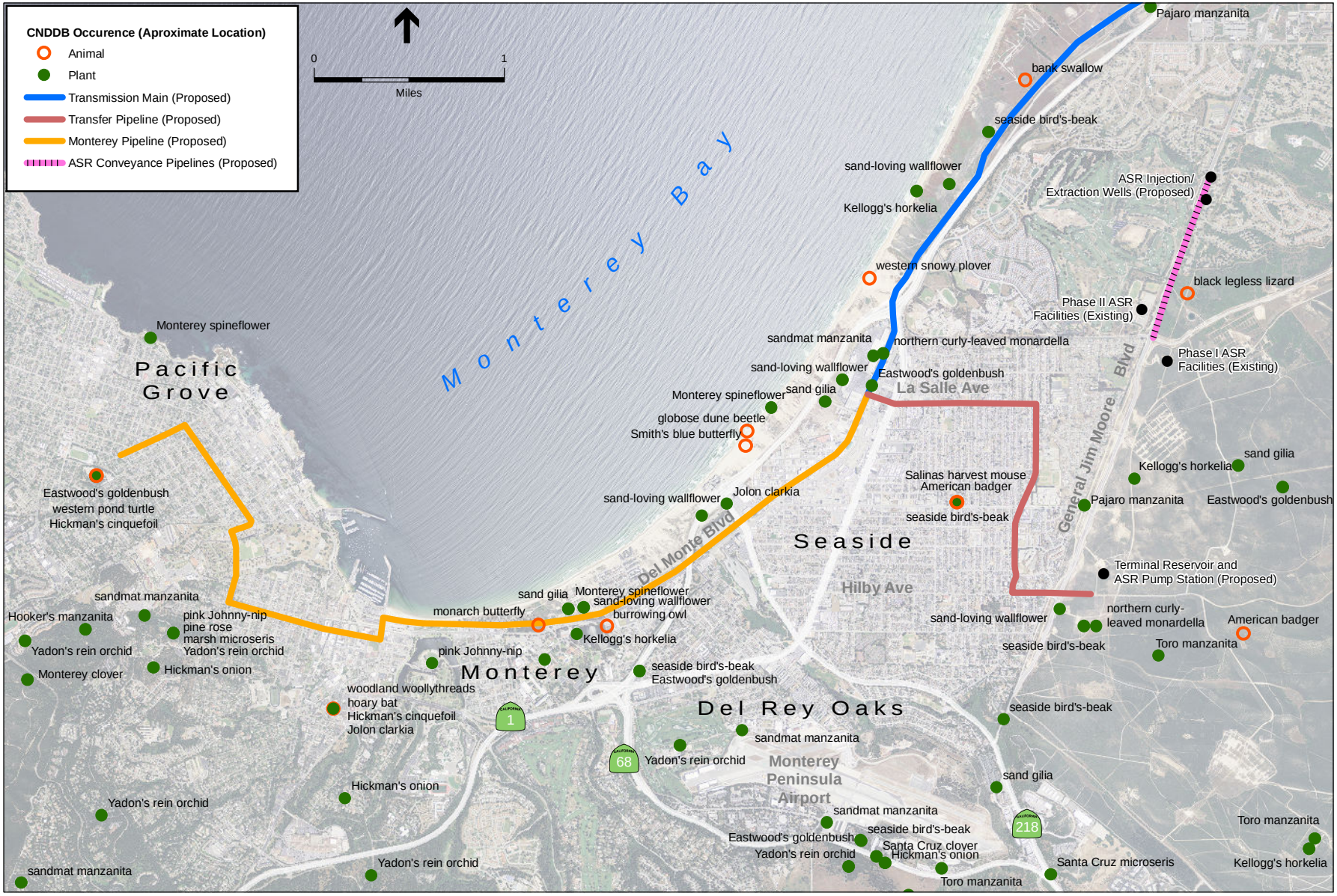


SOURCE: CDFW, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-2a

CNDDB Occurrence Records

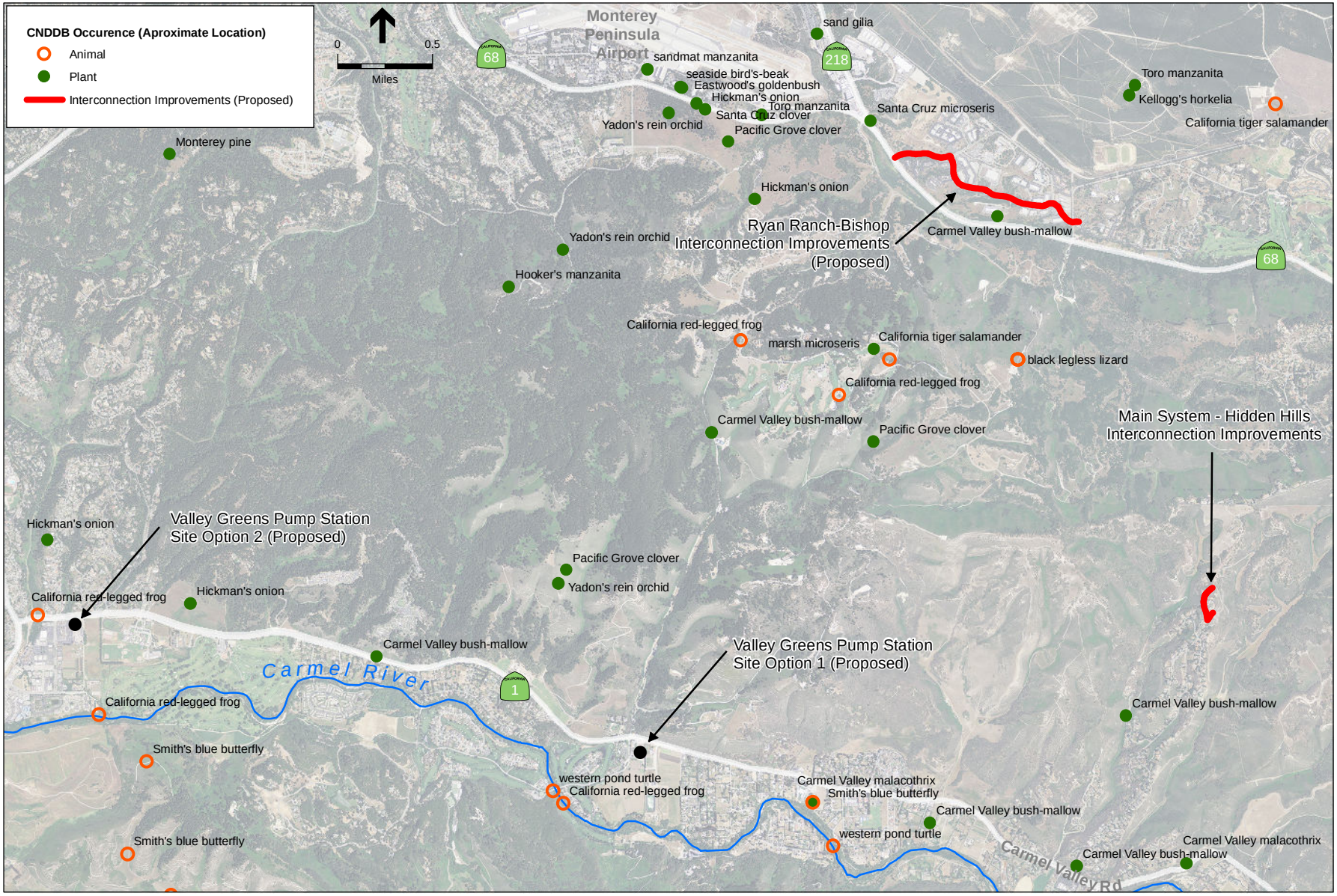


SOURCE: CDFW, 2015

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-2 b

CNDDB Occurrence Records



SOURCE: CDFW, 2015

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-2c

CNDDB Occurrence Records

Six federal and/or state listed plant species occur in the project area or have a moderate to high potential to occur within the project area. These species include Monterey spineflower, robust spineflower (*Chorizanthe robusta* var. *robusta*), seaside bird's-beak, Menzies' wallflower, sand gilia, and Yadon's rein orchid.

Four federal and/or state listed animal species occur in or have a moderate to high potential to occur within the project area including Smith's blue butterfly, California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana draytonii*), and western snowy plover. Twenty non-listed special-status plant species are either known to occur within the project area or have a moderate to high potential to occur within the project area. These include Hickman's onion (*Allium hickmanii*), Hooker's manzanita (*Arctostaphylos hookeri* ssp. *hookeri*), Toro manzanita (*Arctostaphylos montereyensis*), Pajaro manzanita (*Arctostaphylos pajaroensis*), sandmat manzanita, Monterey Coast paintbrush (*Castilleja latifolia*), Monterey ceanothus (*Ceanothus rigidus*), Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), branching beach aster (*Corethrogyne filaginifolia* [formerly *leucophylla*]), Eastwood's goldenbush, sand-loving wallflower (*Erysimum ammophilum*), Kellogg's horkelia, Carmel Valley bush-mallow (*Malacothamnus palmeri* var. *involucratus*), marsh microseris (*Microseris paludosa*), south coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*), Michael's rein orchid (*Piperia michaelii*), native stands of Monterey pine, Santa Cruz microseris (*Stebbinsoseris decipiens*), Santa Cruz clover (*Trifolium buckwestiorum*), and Pacific Grove clover (*Trifolium polyodon*).

Seventeen non-listed special-status animal species are either known to occur or have a moderate to high potential to occur within the project area. These include western pond turtle (*Actinemys marmorata*), black legless lizard, silvery legless lizard *(Anniella pulchra pulchra*), coast horned lizard, tricolored blackbird (*Agelaius tricolor*), western burrowing owl (*Athene cunicularia*), red-tailed hawk, red-shouldered hawk, white-tailed kite, American peregrine falcon (*Falco peregrinus*), American kestrel (*Falco sparverius*), loggerhead shrike (*Lanius ludovicianus*), pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillii*), Monterey dusky-footed woodrat, Monterey shrew (*Sorex ornatus salaries*), and American badger (*Taxidea taxus*).

Numerous native birds also are likely to occur in the project area. These birds, protected under the MBTA and California Fish and Game Code, are likely to nest locally from March through August, with most nesting occurring April through July.

Federal or State Endangered or Threatened Species

Plants

Monterey Spineflower (*Chorizanthe pungens* var. *pungens*). Monterey spineflower is a small, low-growing, annual herb in the buckwheat family (*Polygonaceae*) inhabiting the sandy soils of coastal and inland marine terraces in northern Monterey County. This species occurs in disturbed areas in grassland, such as roadcuts and eroded areas, or with shifting sands of coastal dunes. It is also associated with sand blowouts in areas partially stabilized by iceplant. Monterey spineflower requires a relatively bare substrate for establishment and growth and is threatened by the encroachment of robust nonnative grasses and perennial species.

Populations of Monterey spineflower are known from a variety of locations within and adjacent to the project area. This species has been mapped widely within the former Fort Ord military base including the Fort Ord Dunes State Park near the Transmission Main alignment south of Reservation Road and along General Jim Moore Boulevard near the proposed Terminal Reservoir and ASR facilities (USACE, 1997; Fort Ord Reuse Authority, 2012; CDFW, 2015). It was also observed in 2009 along the Transmission Main alignment, north of the northern terminus of Fremont Boulevard (Denise Duffy & Associates, 2013). In 2012, during botanical surveys conducted for the proposed project, ESA observed this species in disturbed coastal dune scrub north of Reservation Road along the proposed Desalinated Water Pipeline alignment on the west side of Del Monte Boulevard (ESA, 2012). A large population was also observed within the Terminal Reservoir/ASR Pump Station site (Denise Duffy & Associates, 2010a; Fort Ord Reuse Authority, 2012). In 2010, Monterey spineflower was observed along the proposed Source Water Pipeline alignment along Lapis Road and the CEMEX access road (ESA, 2010). Additionally, Zander Associates biologists observed this species adjacent to the CEMEX access road in 2013 and 2014 at the proposed Source Water Pipeline alignment (Zander Associates, 2013; 2014). During botanical surveys conducted at the CEMEX sand mining facility in 2014 in support of this project, ESA found Monterey spineflower in high densities scattered throughout portions of the active mining area, including at the proposed subsurface slant well sites (ESA, 2014). Other populations have been observed within coastal dune scrub and disturbed areas east of Lapis Road and north of the CEMEX access road (CDFW, 2015).

This species occurs in both undisturbed and disturbed coastal dune scrub, grassland, and central maritime chaparral communities and has a moderate to high potential to occur along the Monterey Pipeline alignment and on the east side of General Jim Moore Boulevard in the vicinity of the proposed ASR facilities and Terminal Reservoir/ASR Pump Station site.

Robust Spineflower (*Chorizanthe robusta* var. *robusta*). Robust spineflower is an annual herb that blooms from April through September. This species grows in sandy or gravely soils of coastal dune scrub. Robust spineflower is threatened by development, mining, recreation, and non-native plants. According to USFWS, this species is currently limited to Santa Cruz County, but has been historically documented in Monterey County (USFWS, 2010a). The CNDDB reports one observation of this species along coastal strand west of Highway 1 and north of Light Fighter Drive, approximately 0.2 mile (1,000 feet) west of the project area; however, the observation date was not recorded in the CNDDB (CDFW, 2015). This species was not observed within the project area during the botanical surveys conducted for the proposed project. Although this species is not currently known within Monterey County, it has been historically observed in the project vicinity and has potential to occur within central dune scrub and maritime chaparral at the CEMEX active mining area; along the Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main alignments; and on the east side of General Jim Moore Boulevard in the vicinity of the proposed ASR facilities and Terminal Reservoir/ASR Pump Station site.

Seaside Bird's-Beak (*Cordylanthus rigidus* var. *littoralis*). Seaside bird's-beak is relatively large, many-branched, annual herb in the broomrape family (*Orobanchaceae*) that blooms from May through October. This species grows in the sandy soils of stabilized dunes and is associated

with Monterey pine forest, oak woodland, and maritime chaparral. Like other annual plants of sandy soils, seaside bird's-beak generally requires regular ground disturbance to maintain a bare substrate and control competition with non-native grasses and perennial species. According to the CNDDB, this species has been documented on sand dunes in Sand City, Marina, and Seaside, although these records are all prior to 1950 and populations in these areas may have been extirpated (CDFW, 2015). Seaside bird's beak has been observed at the Terminal Reservoir/ASR Pump Station site (Denise Duffy & Associates, 2010a; Fort Ord Reuse Authority, 2012). This species may occur in suitable habitat, such as central dune scrub, maritime chaparral, and coast live oak woodland at the proposed subsurface slant well site (e.g., the CEMEX sand mining facility); along the Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main alignments; and at the ASR-5 and ASR-6 Wells sites, along the ASR Conveyance Pipelines alignment, and along the ASR Pump-to-Waste Pipeline alignment.

Menzies' Wallflower (*Erysimum menziesii*). Originally, it was thought that two subspecies (*Erysimum menziesii* ssp. *menziesii* and ssp. *yadonii*) occur within Monterey County, with subspecies *menziesii* occurring in a disjunct distribution in Monterey and Mendocino Counties and subspecies *yadonii* restricted to coastal dunes between the mouth of the Salinas River and the former Fort Ord military base (USFWS, 2008). However, the most recent update to the Jepson Manual only recognizes the species and not these two subspecies (Jepson Flora Project, 2013).

This species is a biennial or perennial plant in the mustard family (*Brassicaceae*) and produces yellow flowers from June through August. It was observed within the Transmission Main alignment near the intersection of Lightfighter Drive and Highway 1 during surveys conducted for the proposed project in 2014 (URS, 2014b). This species occurs at the foredunes north of the CEMEX sand mining facility (CDFW, 2015) and was observed in this same area during botanical surveys conducted for the proposed project in 2012 (ESA, 2012). It also occurs in sand dunes north and south of the CEMEX facility (CDFW, 2015). This species has potential to occur in central dune scrub at the proposed subsurface slant well site and along the proposed Source Water Pipeline, and Desalinated Water Pipeline alignments.

Sand Gilia (*Gilia tenuiflora* ssp. *arenaria*). Sand gilia is a small, erect annual in the phlox family (*Polemoniaceae*) blooming from April through June. A rare associate of the maritime chaparral, coastal scrub, and oak woodland communities of northern Monterey County, sand gilia favors bare substrates created by unstable soil conditions. Sand gilia often occurs with Monterey spineflower, which is a federally threatened and CRPR 1B.2 species,[8] with similar ecological requirements; however, a more common associate is wand woollystar (*Eriastrum virgatum*). Changes in dune vegetation have greatly reduced the amount of suitable habitat for these disturbance-dependent species, and many remaining populations are associated with roadsides, eroded drainages, and recently burned chaparral. This species has been observed in sand dunes throughout the project area. Within the immediate project vicinity it has been observed at; the U.S. Navy Post Graduate School near the proposed Monterey Pipeline alignment; at Marina State

[8] CRPR 1B consists of plants that are rare, threatened, or endangered in California and elsewhere. The .2 extension indicates that the plant is "Moderately endangered in California" and reflects the level of threat to the species.

Beach south of the CEMEX sand mining facility; in central dune scrub north of the CEMEX sand mining facility; within the proposed Transmission Main alignment near the intersection of Imjin Parkway and Highway 1; in dune scrub west of Auto Center Parkway; at a location[9] east of General Jim Moore Boulevard in the vicinity of the ASR facilities; at a former Fort Ord military base property located approximately 1.2 miles south of the intersection of Del Monte Boulevard and Reservation Road and just east of Highway 1; and at Marina State Beach approximately 1.4 miles south of the intersection of Del Monte Boulevard and Reservation Road and just west of Highway 1 (CDFW, 2015). It has also been observed within the Terminal Reservoir/ASR Pump Station site (Denise Duffy & Associates, 2010a; Fort Ord Reuse Authority, 2012). Based on the broad distribution of occurrence records within the project area, this EIR assumes sand gilia could potentially occur in central dune scrub and central maritime chaparral at the subsurface slant wells site, along the Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, ASR Conveyance Pipeline, and ASR Pump-to-Waste Pipeline alignments, at the ASR-5 and ASR-6 well sites, and at the Terminal Reservoir/ASR Pump Station site.

Yadon's Rein Orchid (*Piperia yadonii*). Yadon's rein orchid is a slender perennial herb in the orchid family (*Orchidaceae*) that blooms from May through August. This species occurs in Monterey pine forest with a sparse understory, and along ridges and other areas of shallow soil within maritime chaparral. Unlike many other rare plants associated with maritime chaparral, Yadon's rein orchid does not colonize bare ground following disturbance events; instead, this species requires bare areas that remain relatively stable over time, allowing plants to form symbioses with host-specific mycorrhizal fungi. CNDDB occurrence records for this species in the project vicinity are mostly limited to areas south and west of the Monterey Regional Airport (CDFW, 2015). This species has been documented east of Highway 1 and north of Imjin Parkway (Fort Ord Reuse Authority, 2012). It has also been documented approximately 0.3 mile north of the proposed Ryan Ranch-Bishop Interconnection Improvements (Fort Ord Reuse Authority, 2012). Yadon's rein orchid has the potential to occur near the Main System-Hidden Hills Interconnection Improvements site, and at the ASR-5 and ASR-6 Wells sites, along the ASR Conveyance Pipelines and ASR Pump-to-Waste Pipeline alignment, Transfer Pipeline, and at the Terminal Reservoir/ASR Pump Station site.

Invertebrates

Smith's Blue Butterfly (*Euphilotes enoptes smithi*). Smith's blue butterfly is a small butterfly endemic to the central coast of California. This species relies on two host plants—coast buckwheat and seacliff buckwheat (*Eriogonum parvifolium*)—during all of its life stages. These two host plant species are found in coastal sand dunes and chaparral. Smith's blue butterfly uses the flower heads of these plants for feeding, mating, and egg-laying. Adults emerge during summer (June through September), and live approximately one week, during which time they mate. Eggs hatch shortly thereafter, and the caterpillars feed on the host plant then pupate for

[9] As reported in the CNDDB (CDFW, 2015), the exact location of this occurrence record is unknown, but is mapped as a large polygon east of General Jim Moore Boulevard based on a map in "Flora and Fauna Baseline Study of Fort Ord."

about 10 months (typically in the leaf litter below the plant) before emerging as adults the next summer. Adults also occasionally feed on nectar from naked buckwheat (*Eriogonum nudum*).

Smith's blue butterfly has been documented at several locations containing central dune scrub in the vicinity of the project area, from the city of Monterey to the south to the Salinas River National Wildlife Refuge to the north (CDFW, 2015; USACE, 1997; Fort Ord Reuse Authority, 2012). There is also one historical record from chaparral near Carmel Valley Village (CDFW, 2015). During 2012 botanical surveys conducted at the "north CEMEX site" located approximately 0.8 mile north of the CEMEX active mining area,[10] coast buckwheat, one of the two host plants for the Smith's blue butterfly, was observed in high densities in the sand dunes north of the CEMEX sand mining facility (ESA, 2012). During 2013 surveys conducted within the project area, coast buckwheat was found in central dune scrub along the Transmission Main and Monterey Pipeline alignments between Marina and Sand City (ESA, 2013). Coast buckwheat was also observed in high densities along the CEMEX access road and in central dune scrub within the CEMEX active mining area (Zander Associates, 2014; ESA, 2014). Smith's blue butterfly has the potential to occur at the locations where coast buckwheat has been observed. In addition, seacliff buckwheat, the other host plant for Smith's blue butterfly, was also observed in 2009 along the Monterey Pipeline and Transmission Main alignments (Denise Duffy & Associates, 2013).

Fish

South/central California coast steelhead (*Oncorhynchus mykiss irideus*). Steelhead are anadromous (sea-run) rainbow trout that spawn in freshwater, spend the one first to three years (or more) of life in freshwater, and then migrate to the ocean where they continue to grow and mature before returning to spawn in their natal streams. Steelhead populations within the Salinas River and Carmel River basins are part of the south-central California coast Distinct Population Segment (DPS) of the species. This DPS extends from the Pajaro River south to, but not including, the Santa Maria River.

Steelhead populations within the Salinas River watershed have not been well documented, but a few point estimates, summarized in NMFS (2007), are available:

- a USFWS catch estimate of 3,600 adults in 1946,
- a USFWS average run-size estimate of 900 fish in 1951,
- a Kelley and Dettman estimate of less than 500 adults as of 1983.

Based on the above trend and more recent population assessments conducted on the Arroyo Seco, NMFS (2007) concluded that the Salinas River run of steelhead has declined to an adult abundance averaging less than 50 fish and that this remnant population faces a host of risks intrinsic to the low abundance of various sub-populations within the watershed. NMFS (2007)

[10] This location corresponds with the subsurface intake system described in CalAm's January 2013 Supplemental Testimony, which included up to 10 subsurface slant wells at the north CEMEX site. After input from resource agencies in March 2013 regarding impacts to western snowy plover habitat at this site, the subsurface intake system for the MPWSP was moved south to its current location in the CEMEX active mining area (see Chapter 7, Alternatives, regarding Preliminary Intake Option 1 at the north CEMEX site for additional discussion).

concluded that the Upper Salinas, Nacimiento/San Antonio, and Arroyo Seco River sub-populations face "very high", "high", and "fairly high" risks of extinction, respectively. The Salinas River is located approximately 850 feet north of the proposed MPWSP Desalination Plant site.

Amphibians

California Tiger Salamander (*Ambystoma californiense*). California tiger salamander is principally an upland species found in annual grasslands and in the grassy understory of valley-foothill hardwood communities in central and northern California. They require underground refuges (usually ground squirrel or other small mammal burrows), where they spend the majority of their annual cycle. Between December and February, when seasonal ponds begin to fill, adult California tiger salamanders engage in mass migrations to aquatic sites during a few rainy nights to breed. Adult tiger salamanders have been documented at distances of 2 kilometers (1.2 miles) from breeding ponds (Orloff, 2007).

No potential breeding ponds were observed within the project boundary. There are few CNDDB records for California tiger salamander within the immediate project vicinity. The closest CNDDB record is from a stock pond located approximately 1 mile south of the Ryan Ranch–Bishop Interconnection Improvements site and 2 miles northwest of the Main System–Hidden Hills Interconnection Improvements site (CDFW, 2015). California tiger salamander larvae have also been documented at a vernal pool located approximately 1 mile northeast of the Ryan Ranch–Bishop Interconnection Improvements site (CDFW, 2015). A known breeding site is also located approximately 1.2 mile northeast of the Ryan Ranch-Bishop Interconnection Improvements site (Fort Ord Reuse Authority, 2012). This species has also been observed approximately 2 miles east of the proposed ASR facilities and the Terminal Reservoir/ASR Pump Station site.

This species would have low potential to occur at the Monterey Pipeline or Transmission Main as there are no recent observations in the vicinity and these areas are highly urbanized. Since the MPWSP Desalination Plant has been regularly mowed or disked for the past several years, it does not provide high quality upland refugial habitat for this species. The site is located within 250 feet of a drainage ditch connected to the Salinas River. There is some potential that California tiger salamander could occur in this drainage ditch and, if present, could disperse through ruderal areas located at the MPWSP Desalination Plant site.

Central dune scrub and grazed grassland/agricultural areas within the north portion of the proposed Desalinated Water Pipeline and Source Water Pipeline is located within 1.2 mile of the drainage ditch connected to the Salinas River and, if present within the ditch, California tiger salamander could disperse to this area. This species would not be expected to occur at the pond at Locke-Paddon park as the pond is isolated by development. Grassland and grazed grassland/agricultural areas located within the Salinas Valley Return and Brine Discharge Pipeline are also located within 1.2 mile of the drainage ditch connected to the Salinas River and California tiger salamander could disperse through these areas as well.

According to mapping of potential California tiger salamander breeding and upland habitat conducted within the former Fort Ord (Fort Ord Reuse Authority, 2012), there are no potential breeding ponds located within one mile of the ASR-5 and ASR-6 Wells, ASR Settling Basin, ASR Conveyance Pipelines, or ASR Pump-to-Waste Pipeline, so this species would not be expected to occur at these sites. Potential breeding ponds have been mapped within the former Fort Ord within 1.2 mile of the Terminal Reservoir/ASR pump Station site and eastern terminus of the Transfer Pipeline (Fort Ord Reuse Authority, 2012). California tiger salamander have potential to occur in central maritime chaparral at the Terminal Reservoir/ASR Pump Station site and eastern terminus of the Transfer Pipeline.

California tiger salamander has been observed within 1.2 miles of the Ryan Ranch-Bishop Interconnection Improvements site. There are also ponds located within 1.2 miles of the Main System-Hidden Hills Interconnection Improvements site that could suppor California tiger salamander. The majority of the Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements sites are paved and would not support this species. However California tiger salamander could occur in the approximately 0.7 acre grassland area located within the proposed Ryan Ranch-Bishop Interconnection Improvements site and grassland or oak woodland adjacent to both of these Interconnection Improvements sites.

The Valley Greens Pump Station site Option 2 is developed and surrounded by Carmel Valley Road and a paved parking lot and California tiger salamander are not expected at this site. The Valley Greens Pump Station site Option 1 is mostly a developed graveled parking lot with some ruderal habitat within the margins of the site. There are no CNDDB occurrence records for this species in the vicinity of Valley Greens Pump Station site Option 1 and, from aerial photographs, suitable potential breeding habitat does not appear within 1.2 mile of the site. This species would have low potential to occur at Valley Greens Pump Station site Option 1.

California Red-legged Frog (*Rana draytonii*). This species is principally a pond frog that can be found in quiet permanent waters of ponds, pools, streams, rivers, springs, marshes, and lakes. Moist woodlands, forest clearings, and grasslands also provide suitable habitat for this species in the non-breeding season. Adult frogs seek waters with dense shoreline vegetation, such as cattails (*Typha angustifolia, T. latifolia*), which provide good cover, but may also be found in unvegetated waters. California red-legged frogs breed from January to May. Eggs are attached to vegetation in shallow water and are deposited in irregular clusters. Tadpoles grow up to 3 inches in size before metamorphosing. California red-legged frogs are active year-round along the coast but inland populations may aestivate from late summer to early winter. Adults consume insects such as beetles, caterpillars, and isopods, while tadpoles forage on algae and detritus. Depending on environmental conditions, California red-legged frogs may frequently travel distances greater than 1.2 miles from breeding ponds, and some adults have been documented to travel more than 2 miles (USFWS, 2002). Typical dispersal distances are less than 0.3 mile, with few individuals dispersing up to 1.2 to 1.8 miles (Fellers, 2005). Dispersal habitat is defined in the Federal Register's designation of critical habitat for the California red-legged frog by the USFWS as "upland or riparian habitat within and between occupied or previously occupied sites located within 1 mile of each other (USFWS, 2010b)."

Potential California red-legged frog breeding habitat was not observed within the project boundary during reconnaissance surveys conducted for the proposed project. There are few California red-legged frog CNDDB occurrence records in the immediate project vicinity (CDFW, 2015). Most CNDDB records are limited to the Carmel River with one record from the Salinas River approximately 0.75 mile east of the proposed MPWSP Desalination Plant site (CDFW, 2015). There are some historical observations from 1856, 1891, and 1942 from the Pacific Grove and downtown Monterey area (AmphibiaWeb, 2015). It is unlikely that California red-legged frogs still occur in this area due to years of development and isolation from recent occurrence records. This frog is known to breed along the Carmel River and adults have been observed in artificially-maintained ponds at the Tehama Golf Course, which is located approximately 1.2 mile south of the Ryan Ranch-Bishop Interconnection Improvements and 2.1 miles west of the Main System-Hidden Hills Interconnection Improvements site (CDFW, 2015). Additionally, there are several potential breeding ponds located within the former Fort Ord, east of, and within 2 miles of, the Terminal Reservoir/ASR Pump Station site (Fort Ord Reuse Authority, 2012).

This species would have low potential to occur at the Monterey Pipeline or Transmission Main as there are no recent observations in the vicinity and these areas are highly urbanized. Since the MPWSP Desalination Plant has been regularly mowed or disked for the past several years, it does not provide high quality upland refugial habitat for this species. However, the site is located within 850 of the Salinas River, and 250 feet of a drainage ditch connected to the Salinas River. Since the frog is known from the Salinas River, this species could potentially disperse through ruderal areas located at the MPWSP Desalination Plant site.

Central dune scrub and grazed grassland/agricultural areas within the north portion of the proposed Desalinated Water Pipeline and Source Water Pipeline is located within 1 mile of the Salinas River and California red-legged frog could disperse from the Salinas River to this area. This species would not be expected to occur at the pond at Locke-Paddon park as it is surrounded by development. Grassland and grazed grassland/agricultural areas located within the Salinas Valley Return and Brine Discharge Pipeline are also located within 1 mile of the Salinas River and California red-legged frog could disperse through these areas as well.

According to mapping of potential California red-legged frog breeding and upland habitat conducted within the former Fort Ord (Fort Ord Reuse Authority, 2012), there are no potential breeding ponds located within one mile of the ASR-5 and ASR-6 Wells, ASR Settling Basin, ASR Conveyance Pipelines, or ASR Pump-to-Waste Pipeline, so this species would not be expected to occur at these sites. Potential breeding ponds have been mapped within the former Fort Ord within one mile of the Terminal Reservoir/ASR pump Station site and eastern terminus of the Transfer Pipeline (Fort Ord Reuse Authority, 2012). California red-legged frog have potential to occur in central maritime chaparral at the Terminal Reservoir/ASR Pump Station site and eastern terminus of the Transfer Pipeline.

California red-legged frog has been observed within 1 and 2 miles of the Ryan Ranch-Bishop and Main System-Hidden Hills sites, respectively, and there are several drainages between these occurrence records and these facility sites. The majority of the Ryan Ranch-Bishop and Main

System-Hidden Hills Interconnection Improvements sites are paved and would not support this species. However California red-legged frog could occur in the approximately 0.7 acre grassland area located within the proposed Ryan Ranch-Bishop Interconnection Improvements site and grassland or oak woodland adjacent to both of these Interconnection Improvements sites. The Valley Greens Pump Station site Option 2 is developed and surrounded by Carmel Valley Road and a paved parking lot and California red-legged frog are not expected at this site. The Valley Greens Pump Station site Option 1 is mostly a developed graveled parking lot, but there is some ruderal habitat within the margins of the site. This site is located approximately 0.4 mile from the Carmel River, which is known to support California red-legged frog, and, although this site would not support this species, it could occur in ruderal areas during dispersal.

Birds

Western Snowy Plover (*Charadrius alexandrinus nivosus*). The western snowy plover breeds primarily on coastal beaches from southern Washington to southern Baja California. The species breeds above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely-vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Less common nesting habitat includes bluff-backed beaches, dredged material disposal sites, salt pond levees, dry salt ponds, and river bars. Snowy plover use areas with wide, sandy, dune-backed beaches for roosting and foraging during the non-breeding season. This species forages above and below the mean high waterline, typically gathering food from the surface of the sand, wrack line, or low foredune vegetation.

Western snowy plover are known to nest in the beach and sand dunes between Monterey State Beach and the Salinas River National Wildlife Refuge (Page et al., 2012). Between the Salinas River and Marina State Beach, approximately 40 pairs of snowy plover nest on a yearly basis and approximately 330 pairs of snowy plover use the Monterey Bay coastal areas for breeding and wintering (personal communications with Kriss Neuman, Point Blue Conservation Science in ESA, 2012). During surveys conducted for the MPWSP in 2012 (ESA, 2012) and 2013 (ESA, 2013), western snowy plovers were observed at the beach located north and south of the CEMEX sand mining facility, respectively. Multiple western snowy plover nests have been observed on the beach and foredunes within and at the proposed northernmost subsurface slant well cluster in the CEMEX active mining area (PRBO, 2012 in Zander Associates, 2013). Western snowy plover has a high potential to nest along the beach and foredunes in the vicinity of the northernmost subsurface slant well cluster at the western terminus of the proposed Source Water Pipeline alignment. Additionally, western snowy plover may use the beach and dunes within all subsurface slant well and Source Water Pipeline work areas for wintering, roosting, and foraging.

Other Special Status Species

Plants

Hickman's Onion (*Allium hickmanii*). Hickman's onion is a perennial, bulbiferous herb in the onion family (*Alliaceae*) that blooms during April and May. This species is most often associated with shallow, sandy, or otherwise unproductive soils, such as shale and clay hardpan. This plant is associated with a variety of plant species; most populations are associated with grassland

species, but some occur at the grassland/chaparral ecotone or within open oak woodland areas. Plants favor slightly mesic microhabitats within these communities. Coastal influence, and the supplemental moisture associated with summer fog, may be the most important variable affecting population distributions. Remnant patches of coastal prairie typically receive summer fog and are particularly likely to support Hickman's onion. This species has been documented in a moist drainage area over hardpan near the proposed Ryan Ranch–Bishop Interconnection Improvements and in the grassland understory of Monterey pine forest south of the proposed Monterey Pipeline alignment. This species has not been observed during project-related botanical surveys, but has potential to occur in grassland or grassland understory alongside the Ryan Ranch–Bishop and Main System-Hidden Hills Interconnection Improvements sites and along the Monterey Pipeline alignment.

Hooker's Manzanita (*Arctostaphylos hookeri* ssp. *hookeri*). One of the many rare manzanita species endemic to the Monterey Bay region, Hooker's manzanita is associated with sandy shale soils and sandstone outcrops. It is an uncommon component of the maritime chaparral community, and is differentiated from other local manzanitas by its short, low-growing stature and shiny green leaves. The distribution of this subspecies extends from the hills east of Watsonville to Carmel; other rare subspecies of *A. hookeri* occupy coastal habitat to the north and south. It is found in chaparral, coastal prairie, coastal scrub, and valley and foothill grassland communities. This species has been documented within maritime chaparral near the Ryan Ranch–Bishop Interconnection site (CDFW, 2015; USACE, 1997). It was also documented along the proposed Monterey Pipeline alignment in 2009 (Denise Duffy & Associates, 2013). This species has a potential to occur in maritime chaparral and sage scrub communities near the Main System-Hidden Hills Interconnection Improvements site and along the east side of General Jim Moore Boulevard in the vicinity of the proposed ASR facilities, and in coastal scrub or grassland communities at the subsurface slant well site and along the Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, and Transfer Pipeline alignments, and at the Terminal Reservoir/ASR Pump Station site.

Toro Manzanita (*Arctostaphylos montereyensis*). Toro manzanita has been observed near the Monterey Regional Airport and on the former Fort Ord military base. The species is identified by its short-haired glandular appearance and relatively long petioles. This species is found in chaparral, woodland, and coastal scrub communities. Toro manzanita occurrence records are located in maritime chaparral in the vicinity of both the Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements sites (CDFW, 2015). Additionally, this species has previously been documented within the Terminal Reservoir/ASR Pump Station site (USACE, 1997). It may occur in oak woodland, maritime chaparral, or sage scrub in the vicinity of the Ryan Ranch-Bishop Interconnection Improvements site; Main System-Hidden Hills Interconnection Improvements site; and along the east side of General Jim Moore Boulevard in the vicinity of the proposed ASR facilities and Terminal Reservoir/ASR Pump Station. It may also occur and in coastal scrub near the subsurface slant well site and along the proposed Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, and Monterey Pipeline alignments.

Pajaro Manzanita (*Arctostaphylos pajaroensis*). Pajaro manzanita is an important component of maritime chaparral in the upper watershed of Elkhorn Slough and occurs with less frequency in the Marina and Seaside areas. It can also occur along the edges of oak woodland. Pajaro manzanita is readily distinguishable by its clasping, square-based leaves and mint green color. This species has been observed in the former Fort Ord military base near the intersection of General Jim Moore Boulevard and Broadway Avenue and near the intersection of Light Fighter Drive and Highway 1 near the northern entrance to the former Fort Ord military base (CDFW, 2015). This species has potential to occur in maritime chaparral, sage scrub, or oak woodland communities along the Monterey Pipeline, Transmission Main, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignments; at both the Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements sites; at the Terminal Reservoir/ASR Pump Station site; and at the ASR-5 and ASR-6 Wells sites.

Sandmat Manzanita (*Arctostaphylos pumila*). Sandmat manzanita is a low-growing mounded shrub found in sand dunes. The leaves of sandmat manzanita are smaller than other locally occurring manzanitas. The bark is red and shreddy. Sandmat manzanita is an important component of maritime chaparral in the former Fort Ord military base and is documented in the vicinity of General Jim Moore Boulevard and in coastal areas from Marina to Seaside (CDFW, 2015). During reconnaissance-level surveys conducted for this EIR, this species was observed in central dune scrub at multiple locations along the proposed Transmission Main alignment between Marina and Light Fighter Drive and just north of La Salle Boulevard (ESA, 2013). Many individuals were also observed along the proposed Transmission Main alignment north of La Salle Boulevard in 2009 (Denise Duffy & Associates, 2013). Two individuals were also observed along Lapis Road near the proposed Desalinated Water Pipeline alignment during project related botanical surveys conducted in 2012 (ESA, 2012). A large population of this species has also been documented at the Terminal Reservoir/ASR Pump Station site (Denise Duffy & Associates, 2010a; Fort Ord Reuse Authority, 2012). This species has potential to occur within central dune scrub and central maritime chaparral within the subsurface slant wells site, along the Source Water Pipeline alignment, along the Desalinated Water Pipeline alignment, throughout the proposed Monterey Pipeline alignment, in the vicinity of the Main System-Hidden Hills Interconnection Improvements, and at the ASR-5 and ASR-6 Wells sites, along the ASR Conveyance Pipelines alignment, and along the ASR Pump-to-Waste Pipeline alignment.

Monterey Coast paintbrush (*Castilleja latifolia*). Monterey Coast paintbrush is a hemiparasitic perennial herb. This species typically blooms between February and September. It grows in sandy soils in closed-cone coniferous forest, coastal dunes, coastal scrub, and openings in cismontane woodland. This species was observed in central dune scrub east of Highway 1 within the proposed Transmission Main alignment and north of Del Monte Avenue in the vicinity of El Estero Park in the proposed Monterey Pipeline alignment in 2014 during surveys conducted for the proposed project (URS, 2014b). Monterey Coast paintbrush has potential to occur in central dune scrub, central maritime chaparral, and oak woodland at the subsurface slant well site, along the Source Water Pipeline, Desalinated Water Pipeline, Transfer Pipeline, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignments, at the ASR-5 and ASR-6 Wells, and at the Terminal Reservoir/ASR Pump Station sites.

Monterey Ceanothus (*Ceanothus rigidus*). Monterey ceanothus is a perennial evergreen shrub in the buckthorn family (*Rhamnaceae*) that typically blooms between February and June. This species is found in closed-cone coniferous forest, chaparral, and coastal scrub areas with sandy soils. It is found in Monterey, Santa Cruz, and San Luis Obispo Counties. Monterey ceanothus is known from the Terminal Reservoir/ASR Pump Station site and eastern terminus of the Transfer Pipeline alignment (Fort Ord Reuse Authority, 2012). It was also observed within the Transmission Main alignment and adjacent to the ASR Conveyance and ASR Pump-to-Waste Pipeline alignments in 2014 during surveys conducted for the proposed project (URS, 2014b). Monterey ceanothus has potential to occur within central dune scrub and central maritime chaparral at the proposed subsurface slant wells site, along the Source Water Pipeline, Desalinated Water Pipeline, Monterey Pipeline, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline alignments, and at the ASR-5 and ASR-6 Wells, and ASR Settling Basin.

Congdon's Tarplant (*Centromadia parryi* ssp. *congdonii*). This spiny, resinous, annual herb in the sunflower family (*Asteraceae*) occurs in grassland, particularly in areas with alkaline substrates, and in depressions or disturbed areas where water collects. The blooming period extends from June through November. The range of this species includes Alameda, Contra Costa, Monterey, Santa Clara, San Luis Obispo, and San Mateo counties. Congdon's tarplant has been observed in grassland and drainage ditches in the vicinity of Highway 68 east and northeast of both the Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements. It has also been observed in mesic grassland areas at the Moss Landing Power Plant (CDFW, 2015). This species often occurs in disturbed areas and has potential to occur in slightly mesic, alkaline grassland and ruderal areas in the vicinity of the Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements and at the MPWSP Desalination Plant site.

Branching Beach Aster (*Corethrogyne filaginifolia* [formerly *leucophylla*]). Branching beach aster is a perennial herb in the sunflower family (*Asteraceae*). This species typically blooms between May and December and typically occurs in closed-cone coniferous forest and coastal dune habitat. It was frequently observed within the Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main alignments during surveys conducted for the proposed project (URS, 2014b). This species also has potential to occur in central dune scrub within the proposed Monterey Pipeline alignment.

Eastwood's Goldenbush (*Ericameria fasciculata*). Eastwood's goldenbush is a perennial yellow-flowering shrub in the sunflower family (*Asteraceae*) that blooms from July through October. This species occurs in sandy soils in openings in closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub communities. This goldenbush species has been observed on the former Fort Ord military base in the vicinity of General Jim Moore Boulevard and between Reindollar Avenue and Imjin Road east of Highway 1 (CDFW, 2015). This species has also been documented within the Terminal Reservoir/ASR Pump Station site (Denise Duffy & Associates, 2010a; Fort Ord Reuse Authority, 2012). It has potential to occur in central dune scrub, maritime chaparral, and coastal sage scrub communities at the subsurface slant well site, along the Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Monterey Pipeline, ASR Conveyance Pipelines, and along the ASR Pump-to-Waste Pipeline alignments, in

the vicinity of the Main System-Hidden Hills Interconnection Improvements, and at the ASR-5 and ASR-6 Wells sites.

Sand-loving Wallflower (*Erysimum ammophilum*). Sand-loving wallflower is an annual yellow-flowered herb in the mustard family (*Brassicaceae*) that blooms February through June. This species is another rare associate of the maritime chaparral community, growing on loose sandy soils of coastal and inland dunes. This species was documented along the proposed Monterey Pipeline alignment and at the Terminal Reservoir/ASR Pump Station site in 2010 (Denise Duffy & Associates, 2013). Populations of sand-loving wallflower are documented within Marina State Beach, Fort Ord Dunes State Park, on former Fort Ord lands in the vicinity of Marina, on the former Fort Ord military base in the vicinity of General Jim Moore Boulevard (including the Terminal Reservoir/ASR Pump Station site), in disturbed dunes north of the CEMEX sand mining facility, and near the entrance to the U.S. Navy Post Graduate School in Monterey (CDFW, 2015). It has also been historically observed in the vicinity of Laguna del Rey in Seaside. Individuals of this species were observed in coastal dunes north of the CEMEX sand mining facility during project related botanical surveys conducted in 2012 (ESA, 2012). Additionally this species was observed in 2014 during surveys conducted for the proposed project at the subsurface slant well site within central dune scrub at the CEMEX active mining facility (ESA, 2014). This species has potential to occur in central dune scrub and maritime chaparral along the Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignments, and at the ASR-5 and ASR-6 Wells sites.

Kellogg's Horkelia (*Horkelia cuneata* ssp. *sericea*). A spreading perennial herb in the rose family (*Rosaceae*), Kellogg's horkelia is associated with relict dunes and old marine terraces from San Mateo County south to Santa Barbara County. Relatively recent (within the last 30 to 40 years) CNDDB occurrence records have documented this species within the former Fort Ord military base east of General Jim Moore Boulevard within the development water infiltration area that will be used during development of the ASR-5 and ASR-6 Wells, north of the Ryan Ranch-Bishop Interconnection Improvements site, and north of Imjin Parkway (CDFW, 2015). This species was observed along Del Monte Boulevard along the Desalinated Water Pipeline alignment during project related botanical surveys conducted in 2012 (ESA, 2012). In 2009 it was observed along the Transmission Main alignment north of Auto Center Parkway (Denise Duffy & Associates, 2013). Kellogg' horkelia has potential to occur in central dune scrub and maritime chaparral at the subsurface slant well site, along the Source Water Pipeline alignment, the Monterey Pipeline alignment, and the Transfer Pipeline alignment, and at the Terminal Reservoir/ASR Pump Station site.

Carmel Valley bush-mallow (*Malacothamnus palmeri* var. *involucratus*). Carmel Valley bush-mallow is a shrub in the mallow family (*Malvaceae*). It is a fire-dependent species found on talus hilltops and slopes in chaparral, woodland, and coastal scrub communities. This variety is endemic to Monterey and San Luis Obispo Counties. In the vicinity of the project area there is one historical occurrence near Pacific Grove, but more recent observations have been documented in the vicinity of the Main System-Hidden Hills Interconnection Improvements and

Ryan Ranch–Bishop Interconnection Improvements (CDFW, 2015). In 2002, Carmel Valley bush-mallow was observed approximately 0.5 mile southwest of the Main System–Hidden Hills Interconnection Improvements and in 2003 it was observed in coast live oak forest approximately 300 feet south of the Ryan Ranch–Bishop Interconnection Improvements (CDFW, 2015). Carmel Valley bush-mallow has potential to occur in central dune scrub, chaparral, sage scrub, coast live oak woodland, and non-native grassland communities along the Transfer Pipeline, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignments, at the Terminal Reservoir/ASR Pump Station site, in the vicinity of the Main System-Hidden Hills Interconnection Improvements and Ryan Ranch–Bishop Interconnection Improvements, and at the ASR-5 and ASR-6 Wells sites.

Marsh microseris (*Microseris paludosa*). Marsh microseris is a perennial herb in the sunflower (*Asteraceae*) family that typically blooms between April and June, and uncommonly through July. It occurs in vernally wet areas within closed-cone coniferous forest, woodland, coastal scrub, and valley and foothill grasslands. It is found in the San Francisco Bay Area and along the central California coast. There is one historical occurrence record for this species near Pacific Grove and other historical records from the Del Monte Forest area. The most recent CNDDB observations of this species in the vicinity of the project area is from a 1997 observation located approximately 1.5 miles southwest of the Ryan Ranch–Bishop Interconnection Improvements (CDFW, 2015). This species has potential to occur within seasonally wet areas in the vicinity of both the Ryan Ranch–Bishop and Main System-Hidden Hills Interconnection Improvements sites.

Northern curly-leaved monardella (Monardella sinuata ssp. nigrescens). Northern curly-leaved monardella is an annual herb in the mint (*Lamiaceae*) family. It is found in chaparral, coastal dunes, coastal scrub, and lower montane coniferous forest. It typically blooms between April and September. This species has been observed in suitable habitat at several locations within the project vicinity (CDFW, 2015). The two most recent observations are from the former Fort Ord east of the Terminal Reservoir/ASR Pump Station site and in the vicinity of the Monterey Regional Airport. This species has potential to occur within suitable habitat at the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Settling Basin, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and the Terminal Reservoir/ASR Pump Station.

South coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*). South coast branching phacelia is a perennial herb in the Forget-me-not (*Boraginaceae*) family. It is found in chaparral, coastal dunes, coastal scrub, and coastal sandy (sometimes rocky) marshes and swamps. It typically blooms between March and August. This species was observed at the Terminal Reservoir/ASR Pump Station site and within the Transfer Pipeline and Transmission Main alignments during surveys conducted for the proposed project in 2014 (URS, 2014b). South coast branching phacelia has potential to occur at the subsurface slant wells site, within the Source Water Pipeline, Desalinated Water Pipeline, Monterey Pipeline, ASR Conveyance

Pipeline, and ASR Pump-to-Waste Pipeline alignments, ASR-5 and ASR-6 Wells, and ASR Settling Basin.

Monterey pine (*Pinus radiata*). Monterey pine is a perennial evergreen tree in the Pinaceae family. There are only three native stands in California: at Ano Nuevo, in Cambria, and on the Monterey Peninsula. This species has been widely introduced and used in landscaping in many other locations; however, Monterey pine trees planted in urban or streetscape locations typically are not considered special-status. The CNDDB reports two occurrences of this species in the vicinity of the project area. The occurrence records include the entire assumed historical range and encompass much of the Monterey Peninsula. In practice, individual or isolated trees that exist only in a landscaping context are not considered sensitive. However, the *Biological Assessment for the Monterey Bay Regional Desalination Project Monterey Presidio Project*, which encompassed portions of the proposed Monterey Pipeline alignment, concludes that Monterey pines within that portion of the project area are considered special-status because they occur within the historic range of the species (Denise Duffy & Associates, 2010b). On a case-by-case basis, any Monterey pines present along the Monterey Pipeline and Transfer Pipeline alignments, at the Terminal Reservoir/ASR Pump Station site, at the Valley Greens Pump Station (both site options), and both Main System-Hidden Hills and Ryan Ranch–Bishop Interconnection Improvements sites may be considered special-status if they are within, or in close proximity to, the assumed historical range reported by the CNDDB.

Michael's rein orchid (*Piperia michaelii*). Michael's rein orchid is a perennial herb in the orchid (*Orchidaceae*) family. It typically blooms between April and August. It is found in coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, and lower mountain coniferous forest. Michael's rein orchid was observed in several locations within the Transmission Main pipeline alignment and at one location within the Terminal Reservoir/ASR Pump Station site during protocol level plant surveys conducted for the proposed project in 2014 (URS, 2014a). This species has potential to occur in central dune scrub and central maritime chaparral at the subsurface slant wells site, within the Source Water Pipeline, Desalinated Water Pipeline, Transfer Pipeline, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignments, at the ASR-5 and ASR-6 Wells, and ASR Settling Basin sites, and in woodlands in the vicinity of the Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements sites.

Santa Cruz microseris (*Stebbinsoseris decipiens*). Santa Cruz microseris is an annual herb in the sunflower family (*Asteraceae*). This species is found in open areas, sometimes in serpentine soils, in broadleaf upland forest, chaparral, coastal prairie and scrub, and valley and foothill grassland communities. It occurs in Monterey, Santa Cruz, and Marin Counties. Santa Cruz microseris typically blooms in April and May. One CNDDB occurrence record for this species is located in the vicinity of the project area; in 1978 one plant was observed at the top of a roadcut outside of pasture just northeast of the Ryan Ranch–Bishop Interconnection Improvements (CDFW, 2015). This species has a potential to occur in coast live oak or grassland in the vicinity of both the Ryan Ranch–Bishop and Main System–Hidden Hills Interconnection Improvements sites.

Santa Cruz clover (*Trifolium buckwestiorum*). Santa Cruz clover is an annual herb in the legume family (*Fabaceae*) that blooms April through October. It is typically found on margins of broadleaved upland forest, woodland, and coastal prairie. Its range includes Mendocino, Sonoma, San Mateo, Santa Cruz, and Monterey Counties. There are two CNDDB records for this species in the vicinity of the project area, both of which are from 1993 and are located near both the Ryan Ranch-Bishop Interconnection Improvements and Main System-Hidden Hills Interconnection Improvements sites (CDFW, 2015). This species has potential to occur within coast live oak woodland or non-native grassland in and around these two sites.

Pacific Grove clover (*Trifolium polyodon*). Pacific Grove clover is an annual herb in the legume family (*Fabaceae*) that is found in Santa Cruz and Monterey Counties. Its blooming period extends from April to June and occasionally into July. Pacific Grove clover is found along small springs and seeps in grassy openings of closed-cone coniferous forest, coastal prairie, and valley and foothill grasslands. This species has been observed in wet meadow at several locations in the vicinity of both the Ryan Ranch-Bishop Interconnection Improvements and Main System-Hidden Hills Interconnection Improvements sites (CDFW, 2015). Pacific Grove clover has potential to occur within drainages or seasonally wetland grassland habitat within or adjacent to both of these sites.

Reptiles

Western Pond Turtle (*Actinemys marmorata*). The western pond turtle is an aquatic turtle that usually leaves the aquatic site to reproduce, to aestivate, and to overwinter. This turtle requires some slack or slow water, although it occurs where enough food resources occur in faster moving water. Western pond turtle usually nest in hard-packed clay soil in upland areas from March to July. Hatchlings disperse from the nest with winter rains.

Western pond turtles have been observed within the Carmel River, at a brackish water pond near the intersection of Beach Road and Reservation Road approximately 0.2 mile west of the proposed Desalinated Water Pipeline alignment, and at the Pacific Grove Reservoir near the western end of the Monterey Pipeline alignment (CDFW, 2015). This species has potential to occur within suitable aquatic habitat throughout the project area including Locke-Paddon Pond in Marina and Laguna del Rey Park in Monterey.

Black Legless Lizard (*Anniella pulchra nigra*). Black legless lizards are found in sand dunes and sandy soils along the Monterey Bay. They typically inhabit dune areas with moist soil and bush lupine and mock heather as the dominant plants. They are fossorial animals that burrow in loose soil with a high sand content. This subspecies is typically black or dark brown above and yellow below. Some groups only recognize the species, California legless lizard (*Anniella pulchra*), and do not recognize this or other subspecies. The specific CNDDB record locations for this species are suppressed by CDFW, but this species is known from sand dune communities, including both native and non-native plant dominant areas, at locations within the Marina, Seaside, Monterey, and Moss Landing USGS 7.5 minute topographic quadrangles (CDFW, 2015). This species has been observed in Sand City west of Highway 101 and west of the proposed Transmission Main alignment (Fort Ord Reuse Authority, 2012). This species has

potential to occur within central dune scrub, coast sage scrub, and central maritime chaparral at the proposed subsurface slant well site; along the Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Monterey Pipeline, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignments; at the Terminal Reservoir/ASR Pump Station site; and at the ASR-5 and ASR-6 Wells sites.

Silvery Legless Lizard (*Anniella pulchra pulchra*). Silvery legless lizards are found in vegetation communities within sandy or loose loamy soils and sparse vegetation. Their range includes the coast and central valley of California from the southern San Francisco Bay Area to Baja California. This subspecies is silvery gray, or beige above and yellow below. As with the black legless lizard, some groups only recognize the species, California legless lizard, and do not recognize this or other subspecies. There is one CNDDB record for this subspecies in the vicinity of the project area; two individuals were observed in maritime chaparral near Reservation Road approximately 0.5 mile east of the project area (CDFW, 2015). The next closest CNDDB record is from sand dunes at Moss Landing approximately 5 miles north of the project area. Similar to the black legless lizard, this subspecies has potential to occur within central dune scrub, coast sage scrub, and central maritime chaparral communities at the proposed subsurface slant well site; along the Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, and Monterey Pipeline, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignments; at the Terminal Reservoir/ASR Pump Station site; and at the ASR-5 and ASR-6 Wells sites.

Coast Horned Lizard (*Phrynosoma blainvillii*). Coast horned lizards occupy loose sandy loam and alkaline soils in a variety of vegetation communities including chaparral, grasslands, saltbush scrub, coastal scrub, and clearings in riparian woodlands. They primarily eat insects such as ants and beetles. Their population decline is mainly attributed to conversion of land for agricultural purposes. The human introduction of non-native Argentine ants, which tend to displace the native carpenter ants and do not provide enough nutrition for coast horned lizard, is another factor in their decline. Within the vicinity of the project area, coast horned lizards have been observed in grazed annual grasslands and coastal dune scrub north of Beach Road along the proposed Desalinated Water Pipeline alignment (CDFW, 2015). They were also observed at the Terminal Reservoir/ASR Pump Station site (URS, 2014a). Additionally, coast horned lizards have been observed at several locations approximately 1.5 miles east of the Desalinated Water Pipeline and Transmission Main alignments (CDFW, 2015). This species has potential to occur in sandy soils within grassland, central dune scrub, central maritime chaparral, and coast sage scrub at the proposed subsurface slant well site; along the Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, and Monterey Pipeline, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignments; at the Terminal Reservoir/ASR Pump Station site; and at the ASR-5 and ASR-6 Wells sites.

Birds

Tricolored Blackbird (*Agelaius tricolor*). Tricolored blackbirds are found almost exclusively in the Central Valley and central and southern coastal areas of California. The tricolored blackbird is highly colonial and forms dense breeding colonies of up to tens of thousands of pairs. This species typically nests in tall, dense, stands of cattails or tules, but also nests in blackberry, wild

rose bushes, and tall herbs. Nesting colonies are typically located near standing or flowing freshwater. Tricolored blackbirds form large, often multi-species, flocks during the non-breeding period and range more widely during the non-breeding period than during the reproductive season. This species has been observed at Locke-Paddon Park (CDFW, 2015; eBird, 2013). While this species may also forage in grassland and agricultural areas throughout the project area, Locke-Paddon Park and Laguna del Rey Park are the only areas in the project area that provide adequate potential nesting habitat.

Western Burrowing Owl (*Athene cunicularia*). The western burrowing owl is a small, terrestrial owl of open country. Burrowing owls favor flat, open grassland and sparse shrubland ecosystems. In California, burrowing owls are found in close association with California ground squirrels. Ground squirrels provide western burrowing owls with nesting and refuge burrows, and maintain areas of short vegetation height, providing foraging habitat and allowing for visual detection of avian predators by burrowing owls. Burrowing owls are semi-colonial nesters, and group size is one of the most significant factors contributing to site constancy by breeding burrowing owls. The nesting season, as recognized by the CDFW, runs from February 1 through August 31.

Within the project vicinity, wintering burrowing owls have been observed within coastal dune scrub near the U.S. Navy Post Graduate School and in grazed grassland north of Beach Road on either side of the Desalinated Water Pipeline alignment (CDFW, 2015). Burrowing owls were also historically observed in open valley fields on the former Fort Ord lands near Reservation Road (CDFW, 2015). No recent local breeding burrowing owl occurrence records are included in the CNDDB (CDFW, 2015). During biological surveys conducted for the proposed project numerous ground squirrels and ground squirrel burrows were observed within non-native grassland, central dune scrub, and ruderal areas (ESA, 2013). Both breeding and wintering burrowing owls have potential to occur in non-native grassland, central dune scrub, central maritime chaparral, and ruderal areas that support ground squirrel populations along the Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, and Transfer Pipeline alignments and at the Terminal Reservoir/ASR Pump Station site.

Red-tailed hawk (*Buteo jamaicensis*). Red-tailed hawks are commonly found in woodlands and open country with scattered trees. These large hawks feed primarily on small mammals, but will also prey on other small vertebrates, such as snakes and lizards, as well as small birds and invertebrates. Red-tailed hawks nest in a variety of trees in urban, woodland, and agricultural areas. This species is commonly found throughout the project vicinity (eBird, 2013). Red-tailed hawks may forage within grassland and scrub communities within the project area and could potentially nest within mature trees or suitable structures throughout the project area.

Red-shouldered hawk (*Buteo lineatus*). Red-shouldered hawks are another common raptor species typically found in a variety of woodlands with nearby open areas for foraging. This species has a highly varied diet of small mammals, snakes, lizards, amphibians, small or young birds, and large insects. Red-shouldered hawks build large stick nests in mature trees, including riparian woodland trees and large eucalyptus groves. This species has been observed at numerous

locations throughout the project vicinity, most commonly within Laguna del Rey Park and El Estero Park (eBird, 2013). Red-shoulder hawks have potential to nest within riparian woodland, eucalyptus forest, oak woodland, and large groves of ornamental trees within the project area.

White-tailed Kite (*Elanus leucurus*). White-tailed kites are raptors that forage for small rodents and other prey primarily in open grassy or scrubby areas. They nest in large shrubs or trees adjacent to this habitat. Kites are likely to be found foraging in a variety of vegetation communities throughout the project area such as grassland, coastal scrub, and maritime chaparral. White-tailed kites have been observed throughout the project vicinity (eBird, 2013). Suitable nesting habitat in areas with low levels of human disturbance is found throughout the project area.

American peregrine falcon (*Falco peregrinus*). Peregrine falcon is known throughout California and is a year-around resident along the Pacific coast. The peregrine is a specialist, preying primarily on mid-sized birds in flight, such as pigeons and doves. Occasionally these birds will eat insects and bats. Although typical nesting sites for the species are tall cliffs, preferably over or near water, peregrines are also known to use urban sites, including bridges and tall buildings. Peregrine falcons have been observed at Laguna Grande Regional Park, near Armstrong Ranch, and along the coast between Marina and Monterey (eBird, 2013). Nesting habitat is absent from the project area, but this species may hunt and perch throughout the project area.

American kestrel (*Falco sparverius*). American kestrel is a relatively small member of the falcon family that preys on small birds, mammals, lizards, and insects. The kestrel is found most common in open areas, such as grasslands and pastures. American kestrels nest primarily in tree cavities but may also nest in buildings.

American kestrels have regularly been observed at Armstrong Ranch and Laguna Grande Park and occasionally at other locations in the project vicinity (eBird, 2013). Most documented sightings occurred in the non-breeding season. This species may nest in trees or buildings located adjacent to foraging habitat, such as grassland and agricultural fields, and forage throughout these open areas.

Loggerhead Shrike (*Lanius ludovicianus*). Loggerhead shrikes are year-round residents in grassland and scrub communities in California, where they forage primarily on large insects, lizards, and small mammals. Shrikes generally build their nests in shrubs in fairly open areas. This species has been observed at a few locations in the project vicinity including Armstrong Ranch, Fort Ord Dunes State Park, and Ryan Ranch in Del Rey Oaks (eBird, 2013). This species has potential to forage and nest in grassland, scrub, and oak woodland communities throughout the project area.

Mammals

Pallid Bat (*Antrozous pallidus*). Pallid bats are pale to light brown in color. Weighing about 1 ounce, the Pacific race is one of the state's largest bats. Coastal colonies commonly roost in deep crevices in rocky outcroppings, in buildings, under bridges, and in hollow trees. Colonies can

range from a few individuals to over a hundred and are non-migratory. Some female and/or young colonies (typical of the coastal subspecies) may use their day roost for their nursery as well as for winter roosting. Pallid bats typically breed from March 15 through August 15. Although crevices are important for day roosts, night roosts often include porches, garages, barns, and highway bridges. Pallid bats may travel up to several miles for water or foraging sites if roosting sites are limited. Pallid bats prefer foraging on terrestrial arthropods in dry open grasslands, vineyards, orchards, or oaks near water and rocky outcroppings or old structures. Although the occurrence of pallid bat in the this part of Monterey County is not well-documented, the species could forage over a variety of communities in the project area and could potentially roost in human-made structures such as the Highway 1 overpasses in Marina, Seaside, and Monterey and in trees throughout the project area.

Western red bat (*Lasiurus blossevillii*). In California, the western red bat is found in coastal areas south of the San Francisco Bay and in the Central Valley and surrounding foothills (Bolster, 1998). They roost in tree and shrub foliage, predominately in edge habitats adjacent to streams and open fields. They are often associated with riparian habitats. The western red bat could occur in trees located throughout the project area, particularly those associated with riparian areas.

Monterey Dusky-footed Woodrat (*Neotoma fuscipes luciana).* This species prefers hardwood forests, riparian communities, and brushlands and often forages above ground. Food includes berries, fungi, leaves, flowers, and nuts. Woodrats construct large nests of sticks. The breeding season of dusky-footed woodrat typically extends from February through November (Carraway and Verts, 1991). However, at the Hastings Reserve in the Upper Carmel Valley of Monterey County, reproduction is observed year-round, with the fewest pregnancies occurring during December and the most during February (Williams et al., 1992). During reconnaissance-level surveys conducted for the proposed project, woodrat nests were observed in riparian woodland adjacent to the Salinas River near the Highway 1 overcrossing, approximately 0.5 mile north of the project area. Woodrat nests have been observed at the Terminal Reservoir/ASR Pump Station site (URS, 2014a). Woodrats could occur in oak woodland in the vicinity of both the Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements sites. Woodrats could also occur in maritime chaparral, coast sage scrub, and oak woodland communities at the along the Transfer Pipeline, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignments, and at the ASR-5 and ASR-6 Wells sites.

Monterey shrew (*Sorex ornatus salarius*). This species is found in coastal salt marshes and adjacent sand hills and riparian wetland, woodland, and upland communities in the vicinity of the Salinas River Delta. According to the *Draft Installation-Wide Multispecies Habitat Conservation Plan*, which covers the former Fort Ord military base lands (HCP), in 2005, shrews that were believed to be Monterey shrews were captured during California tiger salamander salvage surveys conducted at the East Garrison site on the eastern end of Reservation Road (Fort Ord Reuse Authority, 2012). The DNA analysis had not been completed at the time of the publication of the HCP but based on the location it is assumed that captured shrews were subspecies *salarius.* Between 2010 and 2011 shrews were also inadvertently captured during California tiger salamander surveys at the Fort Ord Natural Reserve, which is located on the east side of Del

Monte Boulevard along Reservation Road. DNA analysis of these shrews was also not available at the time of publication of the HCP, however it is assumed that they are the subspecies *salarius* based on dentition and external morphology. These shrews were found in a variety of vegetation types including: shaggy bark manzanita, coastal scrub, under oak trees, sandmat manzanita, and non-native grassland. Based on the 2005 and 2010/2011 captures, Monterey shrew also potentially occur in coast live oak woodland, grasslands, coastal scrub, maritime chaparral, and savannah vegetation. The HCP mapped potential habitat for the Monterey shrew. Based on that habitat mapping and onsite conditions, Monterey shrew has potential to occur along the Transfer Pipeline, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignments; at the Valley Greens Pump Station (both site options); in the vicinity of the Ryan Ranch-Bishop Interconnection Improvements and Main System-Hidden Hills Interconnection Improvements; at the Terminal Reservoir/ASR Pump Station site; and at the ASR-5 and ASR-6 Wells sites.

American badger (*Taxidea taxus*). In North America, American badgers occur as far north as Alberta, Canada and as far south as central Mexico. In California, American badgers occur throughout the state except in humid coastal forests of northwestern California in Del Norte and Humboldt Counties. The species has been decreasing in numbers throughout California over the last century. American badgers occur in a wide variety of open, arid vegetation communities but are most commonly associated with grasslands, savannas, mountain meadows, and open areas of desert scrub. The principal habitat requirements for this species appear to be sufficient food (burrowing rodents), friable soils, and relatively open uncultivated ground. American badgers are primarily found in areas of low to moderate slope.

There is a historical CNDDB occurrence record for this species from the city of Marina. More recent records indicate the species was observed in grazed grassland in the vicinity of the Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements sites and in grasslands, oak savannas, and coast live oak woodland habitat at the former Fort Ord approximately 0.5 mile east of the Terminal Reservoir/ASR Pump Station site (CDFW, 2015). This species has potential to occur in non-native annual grassland and open central dune scrub along the Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main alignments, at the Terminal Reservoir site, ASR Facilities (ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline alignment) and in the vicinity of the Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements sites.

4.6.1.9 Critical Habitat

Critical habitat for five federally listed species is designated either within or in close proximity to the proposed project. The species include Monterey spineflower, Yadon's rein orchid, south/central California steelhead, California red-legged frog, and western snowy plover. **Figure 4.6-3** shows designated critical habitat for these species in the project vicinity.

Two Monterey spineflower critical habitat units occur in the project vicinity. Unit 3 (Marina) includes coastal beaches, dunes, and bluffs from the mouth of the Salinas River south to the city of Monterey and generally parallels the western side of the project area. The majority of the proposed Transmission Main alignment is just east of the eastern boundary of Unit 3 except for a

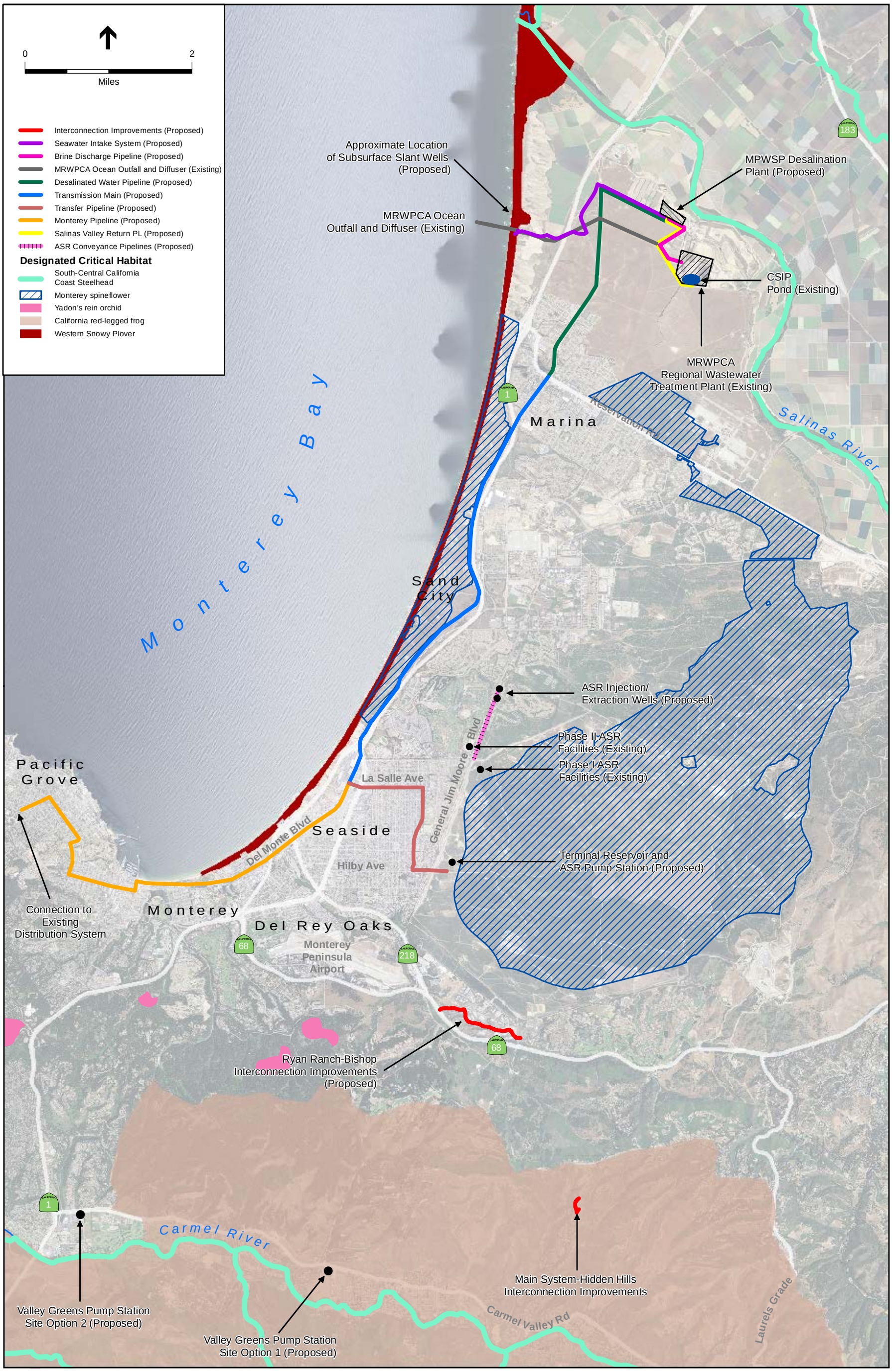
small, approximately 860-foot, segment located within the southern end of Unit 3. Unit 8 (Fort Ord) includes grassland, maritime chaparral, coastal scrub, and oak woodland within the former Fort Ord military base east of General Jim Moore Boulevard. The Terminal Reservoir and ASR facilities sites abut, but lie just outside of Unit 8.

Multiple Yadon's rein orchid critical habitat units are located in the project vicinity. Units 4a and 4b (Aguajito), 5 (Old Capitol), and 6a and 6e (Monterey Peninsula) are all located within 2 miles of the project area. Units 4a and 4b are located between 1.25 and 1.8 miles southeast of the Ryan Ranch–Bishop Interconnection Improvements, respectively. Units 4a and 4b contain a mix of Monterey pine forest and maritime chaparral communities. Unit 5 is located approximately 1.2 mile south of the proposed Monterey Pipeline alignment and supports a mix of Monterey pine forest and coast live oak woodland. Unit 6a is located approximately 1.0 mile west of the proposed Monterey Pipeline alignment and Unit 6e is located approximately 0.75 mile west of the proposed Monterey Pipeline alignment. Unit 6a supports Monterey pine forest, Gowen cypress/Bishop pine forest, and maritime chaparral. Unit 6e supports a mix of coast live oak and Monterey pine forest. The area between Units 5, 6a, and 6e and the project area is generally developed. The area between Units 4a and 4b and the Ryan Ranch–Bishop Interconnection Improvements site is undeveloped and includes a mix of grassland and oak woodland communities.

The project area is located between two critical habitat hydrologic units for south/central California coast steelhead: the Carmel River Hydrologic Unit and the Salinas Hydrologic Unit. The Salinas River, which is the main river in the Salinas Hydrologic Unit, is located 850 feet north of the proposed MPWSP Desalination Plant site. The Carmel River is located approximately 0.5 mile south of both site options for the proposed Valley Greens Pump Station.

Both the Main System–Hidden Hills Interconnection Improvements site and Valley Greens Pump Station site Option 1 are located within California red-legged frog critical habitat Unit MNT-2 (Carmel River). Valley Greens Pump Station site Option 2 is located approximately 0.4 mile west of this unit and the Ryan Ranch–Bishop Interconnection Improvements site is located approximately 0.9 mile north of this unit. Unit MNT-2 includes the Carmel River drainage and nearby San Jose Creek.

Western snowy plover critical habitat Unit CA 22 (Monterey to Moss Landing) includes beaches from Moss Landing south to Monterey. The northernmost slant well cluster and the western terminus of the Source Water Pipeline alignment are located approximately 115 feet east of, and outside of, this critical habitat unit. The remaining two slant well clusters are approximately 700 feet east of the critical habitat unit. The proposed Monterey Pipeline, Transmission Main, and Desalinated Water Pipeline alignments run roughly parallel and east of this unit and are located a minimum of 0.1 to 1 mile from the unit.



SOURCE: ESA, 2013; USFWS, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.6-3

Designated Critical Habitat

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Critical habitat for the Smith's blue butterfly was proposed in 1977; however it has never been finalized. The proposed Smith's blue butterfly critical habitat included coastal sand dunes from Del Rey Creek north to the Salinas River. The subsurface slant well site and portions of the Transmission Main and Monterey Pipeline alignments are within the proposed critical habitat.

4.6.1.10 Sensitive Terrestrial Biological Resources in the Project Area

This section discusses the potential for sensitive terrestrial biological resources to occur at each facility in the project area. **Table 4.6-1** presents the occurrence potential for special-status species at the individual facility sites and pipeline alignments. (Refer to **Figures 3-2** through **3-10** in Chapter 3, Project Description, for the locations of the proposed facilities.) The list of special-status plant and animal species in **Table 4.6-1** was compiled from the CNPS on-line Electronic Inventory (CNPS, 2013); the USFWS official species list for Monterey County (USFWS, 2013); and CNDDB special-status species records for the Moss Landing, Marina, Salinas, Seaside, Spreckels, Carmel Valley, Monterey, Mount Carmel, and Prunedale USGS 7.5-minute topographic quadrangles (CDFW, 2015). The occurrence potential for special-status species considers the habitat requirements and life history of the individual species, site-specific reconnaissance-level biological surveys (habitat assessments) of the project area, and protocol-level surveys of special-status species at select facility locations. As described in Section 4.6.3.2, Approach to Analysis, the impact analyses presented in Sections 4.6.3.4 and 4.6.3.5 consider only those species with a moderate to high potential to occur.

Subsurface Slant Wells

The subsurface slant wells include up to ten subsurface slant wells (eight active wells, plus two standby wells). The subsurface slant wells would be installed in three clusters. The northernmost well cluster (i.e., the test slant well and one other permanent well) would be constructed at the western terminus of the CEMEX access road, approximately 250 feet south of the CEMEX dredging pond and roughly 30 feet south of the CEMEX settling ponds. The remaining well clusters would be installed on the eastern side of the vegetated sand dunes. The subsurface slant well construction area is comprised of areas of relatively undisturbed central dune scrub, formerly disturbed sand dunes that are revegetating with native and non-native dune scrub vegetation, and unvegetated disturbed sandy soil in actively mined areas. The areas of relatively intact scrub occurs along the western active mining area boundary (just east of the active beach area) and at the west end of the access road in the vicinity of the settling ponds. The current and recently disturbed areas occur east of the vegetated sand dunes and south of the CEMEX access road. Central dune scrub within the subsurface slant wells site and CEMEX active mining area includes iceplant and native plant species typically found in central dune scrub or foredune vegetation communities such as California sagebrush, coast buckwheat, mock heather, beach evening primrose, and sea rocket.

The majority of the subsurface slant well area would likely be considered either "primary habitat" or "secondary habitat" areas under the City of Marina's Local Coastal Plan. Primary habitat is defined as all environmentally sensitive habitat areas in Marina and secondary habitat is defined as areas adjacent to primary habitat areas within which development must be sited and designed to prevent impacts which would significantly degrade the primary habitat. Primary and secondary

habitat areas were identified within portions of the CEMEX access road as part of a Rare and Endangered Species Habitat Assessment prepared by SWCA in support of the CalAm slant test well project (SCWA, 2014).

Table 4.6-1 presents the potential for special-status species to occur at the subsurface slant well site. Western snowy plover, Monterey spineflower, sand-loving wallflower, and coast buckwheat (host plant for Smith's blue butterfly) have been observed within the site (ESA, 2013; 2014). Special-status plant and wildlife species that have not been observed at the site but that could potentially occur in central dune scrub at this site include robust spineflower, Seaside bird's-beak, Menzies' wallflower, sand gilia, Smith's blue butterfly, Hooker's manzanita, Toro manzanita, sandmat manzanita, Monterey Coast paintbrush, Monterey ceanothus, branching beach aster, Eastwood's goldenbush, Kellogg's horkelia, northern curly-leaved monardella, south coast branching phacelia, Michael's rein orchid, black legless lizard, silvery legless lizard, and coast horned lizard.

MPWSP Desalination Plant

The proposed MPWSP Desalination Plant and associated facilities (including the source water equalization tanks, pretreatment system, Reverse Osmosis system, post-treatment system, chemical storage, brine storage basin, clearwells, clearwell pump station, desalinated water pump station, and administrative building) are located on the north side of Charles Benson Road and approximately 850 feet south of the Salinas River. The proposed MPWSP Desalination Plant site is located within ruderal areas. Site soils are sandy. The majority of the site is dominated by field mustard, radish, dwarf nettle, and chickweed. No special-status species were observed during reconnaissance-level surveys conducted for the proposed project (ESA, 2013), but this site could support Congdon's tarplant, a species that can be found in disturbed vegetation communities. Although the site does not contain high quality upland habitat for California red-legged frog, this species has been observed in the Salinas River, approximately 0.75 mile east of the site, and could occur at the MPWSP Desalination Plant site while dispersing. Similarly, the site does not contain high quality upland habitat for California tiger salamander. However, if California tiger salamander are present in a drainage ditch located approximately 250 feet from the site, they could occur on the MPWSP Desalination plant site during dispersal.

Table 4.6-1 lists the potential for special-status species to occur at the MPWSP Desalination Plant site. Several mature ornamental eucalyptus and Monterey cypress trees border the site along its southern and western boundaries. These trees may provide potential nesting habitat for raptors such as red-tailed hawk, red-shouldered hawk, and American kestrel and special-status bat species. The entire site provides nesting habitat for common passerines protected under the MBTA.

TABLE 4.6-1
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR AT PROJECT FACILITIES

Species	Status (USFWS/ CDFW/ CRPR)	Subsurface Slant Wells	MPWSP Desalination Plant	Pipelines North of Reservation Road			Facilities and Improvements South of Reservation Road								
				Source Water Pipeline	Desalinated Water Pipeline	Salinas Valley Return Pipeline, Brine Discharge Pipeline	Transmission Main	Transfer Pipeline	Monterey Pipeline	ASR-5 and ASR-6 Wells, ASR Settling Basin, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline	Terminal Reservoir/ASR Pump Station	Valley Greens Pump Station (Site Option 1)	Valley Greens Pump Station (Site Option 2)	Ryan Ranch-Bishop Interconnection Improvements	Main System-Hidden Hills Interconnection Improvements
	Potential To Occur Codes: N= Not expected to occur: No suitable habitat within project area; project area outside currently known distribution or elevation range; no nearby documented occurrences or nearby documented occurrences are historical only. L = Low potential to occur: Potentially suitable habitat highly limited and/or of marginal quality; potentially suitable habitat present but species not documented nearby. M = Moderate potential to occur: Low to moderate quality habitat present; species documented in the project vicinity. H = High potential to occur: High quality suitable habitat present within project area; species documented in the project vicinity. O = Observed: Species (or an indication that the species is present) was observed in the project area during field surveys conducted by ESA or others.														
Federal or State Listed Species															
Plants															
Monterey spineflower	FT/--/CRPR 1B.2	O	L	O	O	L	O	O	M	H	O	N	N	N	N
robust spineflower	FE/CRPR 1B.1	M	L	M	M	L	M	M	L	M	M	N	N	N	N
Seaside bird's-beak	SE/CRPR 1B.1	M	L	M	M	L	M	M	L	M	O	N	N	N	N
Menzies' wallflower	FE/SE/ CRPR 1B.1	M	N	M	M	N	O	N	L	N	N	N	N	N	N
sand gilia	FE/ST/ CRPR 1B.2	H	L	H	M	L	H	O	M	H	O	N	N	N	N
Yadon's rein orchid	FE/CRPR 1B.1	N	N	N	N	N	L	H	L	M	H	N	N	L	M
Invertebrates															
Smith's blue butterfly	FE/--	H	N	H	N	N	H	L	M	L	L	N	N	N	N
Fish															
South/central California coast steelhead	FT/CSSC	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Amphibians															
California tiger salamander	FT/ST	N	L-M	L-M	L-M	L-M	L	M	L	L	M	N	N	L-M	L-M
California red-legged frog	FT/CSSC	N	M	L-M	L-M	L-M	L	M	L	L	M	L-M	L	L-M	L-M
Birds															
Western snowy plover	FT/CSSC	O	N	O	N	N	N	N	N	N	N	N	N	N	N
Other Special-Status Species															
Plants															
Hickman's onion	CRPR 1B.2	N	N	N	N	N	N	N	L-M	L	L	N	N	L-M	L-M
Hooker's manzanita	CRPR 1B.2	M	N	M	M	N	M	H	O	M	H	N	N	L	M
Toro manzanita	CRPR 1B.2	M	N	M	M	N	M	M	M	M	M	N	N	M	M
Pajaro manzanita	CRPR 1B.1	N	N	N	N	N	M	M	L-M	M	M	N	N	M	M
sandmat manzanita	CRPR 1B.2	M	N	H	H	N	O	O	M	M	O	N	N	L	M
Monterey Coast paintbrush	CRPR 4.3	H	N	H	H	N	O	M	O	M	H	L	L	L	L
Monterey ceanothus	CRPR 4.2	M	N	M	M	N	O	O	M	H	O	N	N	N	N
Congdon's tarplant	CRPR 1B.1	N	L-M	L	L	L	L	N	L	L	N	N	N	M	M
branching beach aster	CRPR 3.2	H	N	O	O	N	O	L	M	L	L	N	N	N	N
Eastwood's goldenbush	CRPR 1B.1	M	N	L-M	L-M	N	M	O	L-M	M	O	N	N	L	M
sand-loving wallflower	CRPR 1B.2	O	N	M	M	N	M	M	O	M	O	N	N	N	N
Kellogg's horkelia	CRPR 1B.1	M	N	H	O	N	O	H	M	O	H	N	N	L	L
Carmel Valley bush-mallow	CRPR 1B.2	N	N	N	N	N	N	M-H	N	M	M-H	N	N	M-H	M-H
marsh microseris	CRPR 1B.2	L	N	L	L	N	L	L	L	L	L	N	N	M	L-M
northern curly-leaved monardella	CRPR 1B.2	M	N	M	M	N	M-H	H	M	M-H	H	N	N	L	L
south coast branching phacelia	CRPR 3.2	H	N	H	H	N	O	O	M	H	O	N	N	N	N
Monterey pine	CRPR 1B.1	N	N	N	N	N	N	L	M-H	N	L	M	M	L-M	L-M

TABLE 4.6-1 (Continued)
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR AT PROJECT FACILITIES

Species	Status (USFWS/ CDFW/ CRPR)	Subsurface Slant Wells	MPWSP Desalination Plant	Pipelines North of Reservation Road			Facilities and Improvements South of Reservation Road								
				Source Water Pipeline	Desalinated Water Pipeline	Salinas Valley Return Pipeline, Brine Discharge Pipeline	Transmission Main	Transfer Pipeline	Monterey Pipeline	ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline	Terminal Reservoir/ASR Pump Station	Valley Greens Pump Station (Site Option 1)	Valley Greens Pump Station (Site Option 2)	Ryan Ranch-Bishop Interconnection Improvements	Main System-Hidden Hills Interconnection Improvements
	Potential To Occur Codes: N= Not expected to occur: No suitable habitat within project area; project area outside currently known distribution or elevation range; no nearby documented occurrences or nearby documented occurrences are historical only. L = Low potential to occur: Potentially suitable habitat highly limited and/or of marginal quality; potentially suitable habitat present but species not documented nearby. M = Moderate potential to occur: Low to moderate quality habitat present; species documented in the project vicinity. H = High potential to occur: High quality suitable habitat present within project area; species documented in the project vicinity. O = Observed: Species (or an indication that the species is present) was observed in the project area during field surveys conducted by ESA or others.														
Other Special-Status Species (cont.)															
Michael's rein orchid	CRPR 4.2	M	N	H	H	N	O	H	M	H	O	L	L	L-M	L-M
Santa Cruz microseris	CRPR 1B.2	L	N	L	L	N	L	L	L	L	L	N	N	L-M	L-M
Santa Cruz clover	CRPR 1B.1	N	N	L	L	N	L	L	L	L	L	N	N	L-M	L-M
Pacific Grove clover	--/SR/CRPR 1B.1	N	N	L	L	N	L	L	L	L	L	N	N	L-M	L-M
Reptiles															
Western pond turtle	CSSC	N	N	N	L-M	N	N	N	L-M	N	N	N	N	N	N
black legless lizard	CSSC	M-H	L	M	M	N	M-H	H	L-M	H	H	N	N	N	N
silvery legless lizard	CSSC	M-H	L	M	M	N	M-H	H	L-M	H	H	N	N	N	N
coast horned lizard	CSSC	M-H	L	L-M	L-M	N	L-M	M	L-M	M	O	N	N	L	L
Birds															
tricolored blackbird	CSSC (nesting)	N	L	N	O	N	L	L	M	L	L	L	L	L	L
western burrowing owl	CSSC (nesting and wintering)	N	L	H	H	N	L-M	L-M	L	L	L-M	N	N	N	N
red-tailed hawk	3503.5	L	H	H	H	H	H	H	H	H	H	H	H	H	H
red-shouldered hawk	3503.5	L	M-H	M	M	M	H	M	H	H	M-H	H	H	H	H
White-tailed kite	--/FP	L	M	M-H	M-H	M	M-H	M	M	M	M	L-M	L-M	L-M	L-M
American peregrine falcon	FD/SD/FP	L	M	H	H	M	H	L-M	H	L-M	L-M	L-M	L-M	L-M	L-M
American kestrel	3503.5	L	M	H	H	M	H	M	H	M	M	M	M	M	M
loggerhead shrike	CSSC (nesting)	L	M	H	H	H	H	M	H	H	H	M	M	H	H
Mammals															
pallid bat	CSSC	N	L-M	L-M	L-M	L-M	L-M	L-M	L-M	L-M	L-M	L-M	L-M	L-M	L-M
western red bat	CSSC	N	L-M	L-M	M	L-M	L-M	L-M	M	L-M	L-M	L-M	L-M	L-M	L-M
Monterey dusky-footed woodrat	CSSC	N	N	N	N	N	N	M	N	M	O	N	N	M	M
Monterey shrew	CSSC	N	L	N	N	N	N	M	N	M	M	L	L	M	M
American badger	CSSC	N	L	M	M	L	M	L-M	L	L-M	L-M	N	N	L-M	L-M

Special-Status Species Code Designations: Federal
FE = Federally listed as Endangered
FT = Federally listed as Threatened
FD = Federally delisted

State
SE = State listed as Endangered
ST = State listed as Threatened
SR = State listed as Rare
SD = State Delisted
FP = State listed as Fully Protected
CSSC = California Species of Special Concern
3503.5 = Section 3503.5 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs.

California Rare Plant Rank (Formerly known as CNPS List):
1A = Plants presumed extinct in California.
1B = Plants rare, threatened, or endangered in California and elsewhere.
2A = Plants presumed extirpated in California.
2B = Plants rare, threatened, or endangered in California, but more common elsewhere.
3 = Plants about which more information is needed.
4 = Plants of limited distribution.

An extension reflecting the level of threat to each species is appended to each CRPR as follows:
.1 – Seriously threatened in California.
.2 – Moderately threatened in California.
.3 – Not very threatened in California.

Pipelines North of Reservation Road

Pipelines north of Reservation Road include the Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, and Brine Discharge Pipeline.

Source Water Pipeline

The Source Water Pipeline extends east from the subsurface slant wells in the CEMEX active mining area, along the CEMEX access road, Lapis Road, and Charles Benson Road to the MPWSP Desalination Plant site. The pipeline would be aligned through central dune scrub along the CEMEX access road and Lapis Road, and adjacent to agricultural fields along Charles Benson Road. Non-native grassland and central dune scrub communities east of the CEMEX active mining area are moderately disturbed and include non-native invasive species such as radish, mustard, and iceplant. Central dune scrub within the CEMEX active mining area along the access road contains relatively high cover of native dune scrub species. As described for the subsurface slant wells, the majority of the Source Water Pipeline alignment within the CEMEX active mining area would likely be considered either "primary habitat" or "secondary habitat" areas under the City of Marina's Local Coastal Plan.

Table 4.6-1 lists all special-status species with potential to occur along the Source Water Pipeline alignment. Monterey spineflower was observed along the CEMEX access road within the active mining area (Zander, 2013; 2014). Branching beach aster has been observed along Lapis Road and the CEMEX access road during protocol level plant surveys conducted for the proposed project (URS, 2014b). Coast buckwheat, the host plant for Smith's blue butterfly, has been observed along the CEMEX access road within the CEMEX active mining facility (Zander, 2014) and Smith's blue butterfly has potential to occur in this area. Western snowy plover is known to nest in the beach and foredunes at the western edge of the proposed Source Water Pipeline alignment (PRBO, 2012 in Zander Associates, 2013). Robust spineflower, Hooker's manzanita, Toro manzanita, seaside bird's beak, Menzies' wallflower, sand gilia, sandmat manzanita, Monterey Coast paintbrush, Monterey ceanothus, Eastwood's goldenbush, sand-loving wallflower, Kellogg's horkelia, northern curly-leaved monardella, south coast branching phacelia, and Michael's rein orchid have potential to occur within central dune scrub in the project area. California red-legged frog and California tiger salamander have potential to occur in central dune scrub and grazed grassland/agricultural areas in the northern portion of the pipeline alignment during dispersal. Reptiles that are known to occur in scrub communities with sandy soils, such as black legless lizard, silvery legless lizard, and coast horned lizard, could potentially occur within central dune scrub in this area. American badger may occur within the central dune scrub or agricultural fields if left fallow. Wintering western burrowing owls have also been observed on the Armstrong Ranch property (CDFW, 2015) and could occur within central dune scrub or grassland in or adjacent to the pipeline alignment. Pallid bat has a low to moderate potential to roost within crevices underneath the Highway 1 overpass. Raptors such as red-tailed hawk, white-tailed kite, and loggerhead shrike could potentially nest and/or forage throughout the pipeline alignment and special-status bat species could roost within trees in the alignment.

Desalinated Water Pipeline

The Desalinated Water Pipeline would extend from the MPWSP Desalination Plant west along Charles Benson Road, and turn south and continue south along Del Monte Boulevard to Reservation Road. The majority of the alignment along Del Monte Boulevard includes moderately disturbed central dune scrub. Disturbed non-native annual grassland and ruderal areas exist along the pipeline alignment south of Beach Road. Additionally, willow woodland and scrub communities associated with Locke-Paddon Park occurs near Reservation Road within the alignment.

Table 4.6-1 lists all potential special-status species with potential to occur along the Desalinated Water Pipeline alignment. Despite disturbance, Monterey spineflower and Kellogg's horkelia were observed within central dune scrub along Del Monte Boulevard during surveys conducted for the proposed project (ESA, 2012). Branching beach aster was observed along Del Monte Boulevard during protocol level plant surveys conducted for the proposed project (URS, 2014b). Robust spineflower, Hooker's manzanita, Toro manzanita, seaside bird's beak, Menzies' wallflower, sand gilia, Monterey Coast paintbrush, Monterey ceanothus, south coast branching phacelia, Michael's rein orchid, Eastwood's goldenbush, sandmat manzanita, northern curly-leaved monardella, and sand-loving wallflower have potential to occur within central dune scrub in the project area. California red-legged frog and California tiger salamander have potential to occur in central dune scrub and grazed grassland/agricultural areas in the northern portion of the pipeline alignment during dispersal. Black legless lizard, silvery legless lizard, and coast horned lizard, could potentially occur within central dune scrub in this area. American badger may occur within the central dune scrub or fallow agricultural fields. Western burrowing owls have also been observed on the Armstrong Ranch property (CDFW, 2015) and could occur within central dune scrub or grassland in or adjacent to the pipeline alignment. Raptors such as red-tailed hawk and loggerhead shrike could potentially nest and/or forage throughout the pipeline alignment and special-status bat species could roost within trees in the alignment.

Riparian woodland and scrub adjacent to the pond in Locke-Paddon Park has the potential to support western pond turtle. Tricolored blackbird has been observed within Locke-Paddon Park (CDFW, 2015; eBird, 2013) and could occur along the pipeline alignment.

Salinas Valley Return Pipeline and Brine Discharge Pipeline

The Salinas Valley Return Pipeline and Brine Discharge Pipeline alignments extend between the MPWSP Desalination Plant site and the existing MRWPCA Regional Wastewater Treatment Plant. The pipelines would be installed within the Charles Benson Road right-of-way and along access roads within the MRWPCA Regional Wastewater Treatment Plant. These pipeline alignments would be adjacent to ornamental Monterey cypress trees, a few patches of non-native grassland within the MRWPCA Regional Wastewater Treatment Plant, and agricultural fields (grazing land) on the south side of Charles Benson Road.

Table 4.6-1 lists all potential special-status species with potential to occur along the Salinas Valley Return Pipeline and Brine Discharge alignments. California red-legged frog and California tiger salamander have potential to occur in grassland and grazed grassland/agricultural areas within the pipeline alignment during dispersal. The mature Monterey cypress trees along Charles

Benson Road and the access road to the MRWPCA Regional Wastewater Treatment Plant could provide roosting, foraging, and/or nesting habitat for a variety of raptors such as red-tailed hawk and loggerhead shrike and roosting habitat for special-status bats. Additionally, passerines such as California horned lark may occasionally forage and nest within the grazing lands. Non-native grassland within the MRWPCA Regional Wastewater Treatment Plant site may provide nesting habitat for common passerines but does not generally provide suitable habitat for other special-status species due to its isolation from large expanses of non-native grassland.

Facilities and Improvements South of Reservation Road

Facilities and improvements south of Reservation Road include the Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Settling Basin, ASR Pump Station, ASR Pump-to-Waste Pipeline, ASR Conveyance Pipelines, Terminal Reservoir, Valley Greens Pump Station, Ryan Ranch-Bishop Interconnection Improvements, and Main System-Hidden Hills Interconnection Improvements.

Transmission Main

The Transmission Main alignment begins at Reservation Road, and follows the Transportation Authority for Monterey County (TAMC) railroad right-of-way through Marina. In this section, the right-of-way parallels the northwest side of Del Monte Boulevard, occurring as an approximately 100-foot wide passage of non-native grassland and ornamental trees. After traversing Marina, and then Highway 1, the corridor continues along the TAMC right-of-way for approximately 4.5 miles before traversing to the east side of Highway 1. This segment, including the narrow developed railroad bed and associated ruderal vegetation, passes through central dune scrub at the base of back dunes. After crossing to the east side of Highway 1, the corridor runs through Sand City and transitions from central dune scrub to non-native grassland with some cover from central dune scrub species.

Table 4.6-1 lists the special-status species that could potentially occur along the Transmission Main alignment. Sandmat manzanita was observed in scattered stands through this segment during reconnaissance level surveys conducted for the proposed project in 2013 (ESA, 2013). Monterey spineflower and Kellogg's horkelia have also been observed along this pipeline alignment (USACE, 1997; Fort Ord Reuse Authority, 2012; CDFW, 2015; and Denise Duffy & Associates, 2013, respectively). Menzies' wallflower, branching beach aster, Monterey Coast paintbrush, Monterey ceanothus, south coast branching phacelia, and Michael's rein orchid were observed within the Transmission Main alignment during protocol level plant surveys conducted for the proposed project in 2014 (URS, 2014b). A variety of special-status plant species associated within coastal scrub could occur along this pipeline corridor including robust spineflower, seaside bird's-beak, Menzies' wallflower, sand gilia, Hooker's manzanita, Toro manzanita, Pajaro manzanita, Eastwood's goldenbush, northern curly-leaved monardella, and sand-loving wallflower. Coast buckwheat was observed in high densities within the proposed Transmission Main alignment during reconnaissance level surveys conducted in 2013 for the proposed project (ESA, 2013). Therefore, for the purposes of this analysis, it is assumed Smith's blue butterfly could occur along the Transmission Main alignment.

Black legless lizard, silvery legless lizard, and coast horned lizard could potentially occur within central dune scrub along this alignment. Ground squirrels and their burrows were observed in central dune scrub and grassland communities throughout the alignment and western burrowing owl and American badger could occur in these areas. Additionally, raptors such as red-shouldered hawk, red-tailed hawk, white-tailed kite, and loggerhead shrike could nest and forage within this area. Pallid bat has some potential to roost within crevices underneath the Highway 1 overpasses and pallid bat and red bat have potential to roost in trees within the alignment.

Transfer Pipeline

From Del Monte Boulevard, the Transfer Pipeline would be routed east along Auto Center Parkway and La Salle Avenue to Yosemite Street, turn south and continue along Yosemite Street to Hilby Avenue, then continue east across General Jim Moore Boulevard to the Terminal Reservoir/ASR Pump Station site. The Transfer Pipeline alignment on the west side of General Jim Moore Boulevard is located within developed residential areas. Street trees and residential landscaping provides potential nesting habitat for common passerine species and raptors but would not be expected to support other special-status species.

From the crossing of General Jim Moore Boulevard to the Terminal Reservoir/ASR Pump Station site, the proposed Transfer Pipeline alignment passes through maritime chaparral. **Table 4.6-1** lists all potential special-status species with potential to occur along the Transfer Pipeline alignment. Vegetation communities are similar to those of the Terminal Reservoir/ASR Pump Station site (see the discussion of the Terminal Reservoir/ASR Pump Station site below for information regarding habitat conditions and special-status species).

Monterey Pipeline

The northern end of the Monterey Pipeline connects with the southern end of the Transmission Main. The Monterey Pipeline then continues south along the TAMC right-of-way to the intersection of Del Monte Boulevard and Canyon Del Rey Boulevard where it runs alongside the Monterey Peninsula Recreational Trail. At the intersection of Del Monte Boulevard and Figueroa Street the alignment continues through city streets until it connects with the existing distribution system at the intersection of Eardley Avenue and Sinex Avenue. The Monterey Pipeline segment between the end of the Transmission Main and the intersection of Del Monte Boulevard and Figueroa Street includes altered communities on sandy soils including developed areas, non-native grassland, patches of eucalyptus, patches of coast live oak woodland, and central dune scrub restoration areas. Additionally, the pipeline alignment includes riparian and woodland scrub associated with Laguna del Rey. West of the Figueroa Street, the remainder of the pipeline passes through developed urban area of Monterey.

Table 4.6-1 lists all potential special-status species with potential to occur along the Monterey Pipeline alignment. Hooker's manzanita, sand-loving wallflower, and Monterey Coast paintbrush have been observed within the pipeline alignment (Denise Duffy & Associates, 2013; URS, 2014b). Monterey spineflower, sand gilia, Hickman's onion, Toro manzanita, Pajaro manzanita, sandmat manzanita, branching beach aster, Monterey ceanothus, Eastwood's goldenbush, Kellogg's horkelia, northern curly-leaved monardella, south coast branching phacelia, Michael's

rein orchid, and native stands of Monterey pine have some potential to occur on sandy soils in central dune scrub or in the understory of coast live oak woodland within this alignment. A few coast buckwheat individuals, potential host plants for Smith's blue butterfly, were observed within non-native grassland at the northern end of the Monterey Pipeline alignment (ESA, 2013). Riparian woodland and scrub associated with Laguna del Rey provides suitable habitat for western pond turtle and tricolored blackbird. Black legless lizard, silvery legless lizard, and coast horned lizard have potential to occur in the coast live oak woodland or central dune scrub restoration sites. Raptors such as red-tailed hawk, red-shouldered hawk, American kestrel, and loggerhead shrike have potential to nest and forage within the pipeline alignment. Pallid bat has potential to roost in crevices underneath overpasses and pallid bat and red bat have potential to roost in trees within the alignment.

Aquifer Storage and Recovery Facilities

The proposed ASR facilities include two new ASR injection/extraction wells (ASR-5 and ASR-6 Wells), an ASR Pump-to-Waste System comprised of an ASR Settling Basin and ASR Pump-to-Waste Pipeline, and two ASR Conveyance Pipelines. While the ASR Pump Station is part of the ASR facilities, it is located at the Terminal Reservoir Site and habitat conditions and potential for special-status species to occur at the ASR facilities are described in the next section. The ASR facilities would be located on the east side of General Jim Moore Boulevard in the former Fort Ord military base. Soils at these sites are sandy and non-native grassland and coast live oak woodland occurs throughout the area. Coastal sage scrub and central maritime chaparral occur in the southern extent of the ASR facilities project area.

Table 4.6-1 lists all potential special-status species with potential to occur at the ASR facilities. Kellogg's horkelia has been observed within the development water infiltration area that will be used during development of the ASR-5 and ASR-6 Wells (CDFW, 2015). Additionally, a variety of special-status plant species known to occur in scrub communities with sandy soils could potentially occur along this stretch of General Jim Moore Boulevard including Monterey spineflower, robust spineflower, seaside birds-beak, sand gilia, Yadon's rein orchid, Hooker's manzanita, Toro manzanita, Pajaro manzanita, sandmat manzanita, Monterey Coast paintbrush, Monterey ceanothus, Eastwood's goldenbush, sand-loving wallflower, Kellogg's horkelia, northern curly-leaved monardella, Carmel Valley bush-mallow, south coast branching phacelia, and Michael's rein orchid.

Silvery legless lizard, black legless lizard, and coast horned lizard could potentially occur within coastal sage scrub, in sandy soils within the grassland, or on edges of the coast live oak woodland habitat. Raptors such as red-tailed hawk, red-shouldered hawk, American kestrel, and loggerhead shrike have potential to nest and forage within or adjacent to the project area. Special-status bats have potential to roost in trees within the project area. Coastal sage scrub and coast live oak woodland also provide potential habitat for Monterey dusky-footed woodrat, Monterey shrew, and American badger.

Terminal Reservoir/ASR Pump Station Site

The Terminal Reservoir/ASR Pump Station site is located east of General Jim Moore Boulevard in the former Fort Ord military base. Central maritime chaparral occurs throughout the site. The

site is located at the eastern edge of a large expanse of relatively intact maritime chaparral, also within the former Fort Ord military base. Portions of maritime chaparral within the project area are somewhat disturbed from the use of access roads, but the Terminal Reservoir/ASR Pump Station site is largely undisturbed.

Table 4.6-1 lists all potential special-status species with potential to occur at the Terminal Reservoir/ASR Pump Station site. Many special-status plants species have been observed within the Terminal Reservoir/ASR Pump Station site including Monterey spineflower, sand gilia, seaside bird's beak, sandmat manzanita, and Eastwood's goldenbush (Denise Duffy & Associates, 2010a), sand-loving wallflower (Denise Duffy & Associates, 2013), Monterey ceanothus (Fort Ord Reuse Authority, 2012), south coast branching phacelia, and Michael's rein orchid (URS, 2014a). Other special-status plant species with potential to occur onsite include robust spineflower, Toro manzanita, Pajaro manzanita, Hooker's manzanita, Monterey Coast paintbrush, Carmel Valley bush-mallow, northern curly-leaved monardella, and native stands of Monterey pine.

California tiger salamander and California red-legged frog have potential to occur at this site during upland dispersal. Black legless lizard, silvery legless lizard, and coast horned lizard have potential to occur within maritime chaparral. Monterey dusky-footed woodrat, Monterey shrew, and American badger may also occur onsite in dense chaparral. Western burrowing owls has potential to occur in chaparral where ground squirrel burrows are present. Raptors such as American kestrel may nest within the site and others such as red-tailed hawk may forage onsite. Special-status bats have potential to roost in trees at the site.

Valley Greens Pump Station

Both Valley Greens Pump Station site options are located in developed and/or disturbed areas, which do not provide potential suitable habitat for most special-status species. California red-legged frog are known from the Carmel River, which is located between 0.25 and 0.5 mile of each facility. Although they would not be expected to occur at site Option 2 since it is surrounded by development, they could occur in the ruderal margins of site Option 1 during upland dispersal. **Table 4.6-1** lists all potential special-status species with potential to occur at both Valley Greens Pump Station site options. Raptors such as red-tailed hawk or red-shouldered hawk may nest, and special-status bats may roost, in trees outside of these sites. Native stands of Monterey pine may also occur within or adjacent to the sites.

Ryan Ranch-Bishop Interconnection Improvements

The Ryan Ranch–Bishop Interconnection Improvements site is located along Ragsdale Drive, Lower Ragsdale Drive, and Wilson Road just north of Highway 68. The site is located within an existing road within a business park with existing stands of coast live oak woodland and non-native grassland interspersed throughout the buildings, roads, parking lots, and landscaping located adjacent to the project area. Although the proposed improvements would be constructed within the existing paved roadway, there are is one area of non-native grassland adjacent to the road within the project area.

Table 4.6-1 lists all potential special-status species with potential to occur in the vicinity of the Ryan Ranch-Bishop Interconnection Improvements site. Although most of construction would include work within existing developed roadways, some work would occur in non-native grassland. Furthermore, special-status plant species could occur in coast live oak woodland or non-native grassland immediately adjacent to the roadway including Hickman's onion, Toro manzanita, Pajaro manzanita, Congdon's tarplant, Carmel Valley bush-mallow, marsh microseris, Michael's rein orchid, Santa Cruz microseris, Santa Cruz clover, Pacific Grove clover, and native stands of Monterey pine. Monterey dusky-footed woodrat, Monterey shrew, American badger, and special-status bats may also occur in suitable habitat within or immediately adjacent to the Ryan Ranch-Bishop Interconnection Improvements site.

Although California tiger salamander breeding habitat is absent from the Ryan Ranch-Bishop Interconnection Improvements site, California tiger salamander breeding ponds exist within 1.2 mile of the Ryan Ranch–Bishop Interconnection Improvements (CDFW, 2015) and this species has potential to occur on-site in the upland grassland. California red-legged frog aquatic habitat is absent from the site. This frog is known to breed within the Carmel River (CDFW, 2015) and could utilize other aquatic sites between the Carmel River and the Ryan Ranch-Bishop Interconnection Improvements site if suitable habitat is present. Due to the presence of several drainages between the Carmel River and the Ryan Ranch-Bishop Interconnection Improvements site, there is a potential for California red-legged frog to occur in the grassland while dispersing.

Main System–Hidden Hills Interconnection Improvements

The Main System–Hidden Hills Interconnection Improvements site is located along Tierra Grande Drive in a low-density residential area north of Carmel Valley Road. The improvements would be constructed within the developed roadway, but coast live oak woodland, ornamental Monterey pines, and northern coastal scrub are located adjacent to the road edges. Coast live oak woodland occurs at the Middle Tierra Grande Booster Station outside of the existing facilities.

Table 4.6-1 lists all potential special-status species with potential to occur in the vicinity of the Main System-Hidden Hills Interconnection Improvements site. Although most of construction would include work within existing developed roadways, some special-status plant species could occur in coast live oak woodland, non-native grassland, or scrub communities immediately adjacent to the roadway including Yadon's rein orchid, Hickman's onion, Hooker's manzanita, Toro manzanita, Pajaro manzanita, sandmat manzanita, Congdon's tarplant, Eastwood's golden bush, Carmel Valley bush-mallow, marsh microseris, Santa Cruz microseris, Michael's rein orchid, Santa Cruz clover, Pacific Grove clover, and native stands of Monterey pine. Monterey dusky-footed woodrat, Monterey shrew, American badger, and special-status bats may also occur in suitable habitat immediately adjacent to this Interconnection Improvements site.

California red-legged frog aquatic habitat is absent from the Main System-Hidden Hills Interconnection Improvements site. This frog is known from the Carmel River and from artificial ponds located within the Tehama Golf Course approximately 2 miles northwest of the site (CDFW, 2015). Due to the presence of several drainages between the Carmel River and the Main System-Hidden Hills Interconnection Improvements site, there is a potential for California red-

legged frog to occur in upland areas adjacent to the site, but would not be expected to utilize the facility site as it is developed. Stock ponds, that could potentially support California tiger salamander are located within 1.2 mile of the site. If California tiger salamander are present in these ponds, they have potential to disperse through upland areas adjacent to the site.

4.6.2 Regulatory Framework

The below describes federal, state, and local regulations as they pertain to inland biological resources. The regulatory framework for surface water hydrology and water quality and marine biological resources are described in Sections 4.3.2 and 4.5.2 respectively.

4.6.2.1 Federal Regulations

Federal Endangered Species Act (FESA)

The USFWS (jurisdiction over plants, wildlife, and resident fish) and National Marine Fisheries Service (NMFS; jurisdiction over anadromous fish and marine fish and mammals) oversee the Federal Endangered Species Act (FESA). The FESA prohibits the "take"[11] of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery. Section 7 of the Act mandates that all federal agencies consult with the USFWS and NMFS to ensure that federal agencies actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. The federal agency is required to consult with the USFWS and NMFS if it determines a "may effect" situation will occur in association with the proposed project. During consultation, the potential for take would be determined and, if take is expected to occur, the necessary conditions to allow the issuance of an incidental take permit would be imposed. As indicated in **Table 3-8** in Chapter 3, Project Description, consultation with the USFWS and NMFS is required for regulatory permits and approvals.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) is the domestic law that affirms, or implements, a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. The MBTA makes it unlawful at any time, by any means, or in any manner to pursu-e, hunt, take, capture, or kill migratory birds. The law also applies to the removal of nests occupied by migratory birds during the breeding season. The MBTA makes it unlawful to take, pursue, molest, or disturb these species, their nests, or their eggs anywhere in the United States.

[11] The definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, trap, capture, or collect, or to attempt to engage in any such conduct. The USFWS has also interpreted "harm" to include significant habitat modification that could result in take.

Federal Regulation of Waters Including Wetlands

U.S. Army Corps of Engineers and U.S. Environmental Protection Agency

Wetlands and other waters (e.g., rivers, streams, and natural ponds) are a subset of "waters of the U.S.," and receive protection under Section 404 of the Clean Water Act (CWA). The USACE has primary federal responsibility for administering regulations that concern waters of the United States. In this regard, the USACE acts under two statutory authorities: the Rivers and Harbors Act (Sections 9 and 10), which governs specified activities in "navigable waters,"[12] and the Clean Water Act (Section 404), which governs specified activities in waters of the United States, including wetlands. The construction of structures, such as tidegates, bridges, and piers, as well as construction activities that could interfere with navigation, such as dredging and stream channelization, may require a Section 10 permit. A Section 404 permit is required if the activity involves the discharge of fill. The United States Environmental Protection Agency (USEPA) has the ultimate authority for designating dredge and fill material disposal sites and can veto the Corp's issuance of a permit to fill jurisdictional waters of the United States.

The USACE requires a permit if a project proposes placement of structures within navigable waters and/or alteration of waters of the U.S. Some classes of fill activities may be authorized under Regional General or Nationwide permits if specific conditions are met. Nationwide permits do not authorize activities that are likely to jeopardize the existence of a threatened or endangered species (listed or proposed for listing under the FESA). The Nationwide permit outlines general conditions and may specify project-specific conditions as required by the USACE during the Section 404 permitting process. When a project's activities do not meet the conditions for a Nationwide Permit, an Individual Permit may be issued by the USACE.

The federal government also supports a policy of minimizing "the destruction, loss, or degradation of wetlands." Executive Order 11990 (May 24, 1977) requires that each federal agency take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.

In recent years several Supreme Court cases have challenged the scope and extent of the USACE's jurisdiction over waters of the United States and have led to several reinterpretations of that authority. The most recent of these decisions are the case of Solid Waste Agency of Northern Cook County (SWANCC) v. the Army Corps of Engineers (January 9, 2001) and Rapanos v. United States (June 2006). The SWANCC decision found that jurisdiction over non-navigable, isolated, intrastate waters could not be based solely on the use of such waters by migratory birds. The reasoning behind the SWANCC decision could be extended to suggest that waters need a demonstrable connection with a navigable water to be protected under the CWA. The introduction of the term "isolated" has led to the consideration of the relative connectivity between waters and wetlands as a jurisdictionally relevant factor. The more recent Rapanos case further questioned the definition of "waters of the United States" and the scope of federal regulatory jurisdiction over such

[12] Navigable waters are defined as those waters that are subject to the ebb and flow of the tide or that are presently used, have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

waters but resulted in a split decision which did not provide definitive answers but expanded on the concept that a "significant nexus" with traditional navigable waters was needed for certain waters to be considered within the jurisdiction of the USACE.

On June 5, 2007 the USEPA and the USACE released guidance on CWA jurisdiction in response to the Rapanos Supreme Court decision, which can be used to support a finding of CWA coverage for a particular water body when either a) there is a significant nexus between the stream or wetland in question and navigable waters in the traditional sense; or b) a relatively permanent water body is hydrologically connected to traditional navigable waters and/or a wetland has a surface connection with that water. According to this guidance the USACE and the USEPA will take jurisdiction over the following waters:

1. Traditional navigable waters, which are defined as all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

2. Wetlands adjacent to traditional navigable waters; including adjacent wetlands that do not have a continuous surface connection to traditional navigable waters;

3. Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months);

4. Wetlands adjacent to non-navigable tributaries as defined above; that have a continuous surface connection to such tributaries (e.g. they are not separated by uplands, a berm, dike, or similar feature).

The USEPA and the USACE claim jurisdiction over the following waters, based on a fact-specific determination of significant nexus, as defined below, to a traditional navigable water: non-navigable tributaries that are not relatively permanent; wetlands adjacent to non-navigable tributaries that are not relatively permanent; and wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

The USEPA and the USACE *generally* do not assert jurisdiction over the following features: swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow); ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The USEPA and the USACE have defined the significant nexus standard as follows:

1. A significant nexus analysis assesses the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters;

2. Significant nexus analysis includes consideration of hydrologic and ecologic factors including:

a. volume, duration, and frequency of flow, including consideration of certain physical characteristics of the tributary;

b. proximity to a traditional navigable water;

c. size of the watershed;

d. average annual rainfall;

e. average annual winter snow pack;

f. potential of tributaries to carry pollutants and flood waters to traditional navigable waters;

g. provision of aquatic habitat that supports a traditional navigable water;

h. potential of wetlands to trap and filter pollutants or store flood waters; and

i. maintenance of water quality in traditional navigable waters.

Federal Policies on Riparian Communities in California

Riparian communities are associated with water and have a variety of functions, including providing high-quality habitat for resident and migrant wildlife, streambank stabilization, and runoff water filtration. Throughout the United States, riparian habitats have declined substantially in extent and quality compared with their historical distribution and condition. These declines have increased concerns about dependent plant and wildlife species, leading federal agencies to adopt policies to arrest further loss. USFWS Mitigation Policy identifies California's riparian habitats as belonging to resource Category 2, for which "no net loss" of existing habitat value is recommended (USFWS, 1981).

4.6.2.2 State Regulations

California Endangered Species Act

California implemented its own Endangered Species Act (CESA) in 1984. The state act prohibits the take of endangered and threatened species; however, habitat destruction is not included in the state's definition of take. Section 2090 of CESA requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. The CDFW administers the act and authorizes take through Section 2081 agreements (except for designated fully-protected species, as described below).

Regarding rare plant species, CESA defers to the California Native Plant Protection Act of 1977, which prohibits importing of rare and endangered plants into California, taking of rare and endangered plants, and selling of rare and endangered plants. State-listed plants are protected mainly in cases where state agencies are involved in projects under CEQA. In this case, plants listed as rare under the California Native Plant Protection Act are not protected under CESA but can be protected under CEQA.

California Fish and Game Code

Section 2080 of the California Fish and Game Code states that "No person shall import into this state [California], export out of this state, or take, possess, purchase, or sell within this state, any

species, or any part or product thereof, that the Commission [State Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act." Pursuant to Section 2081 of the code, CDFW may authorize individuals or public agencies to import, export, take, or possess State-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or Memoranda of Understanding if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and the project operator ensures adequate funding to implement the measures required by CDFW, which makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs.

California Fish and Game Code Sections 3511 [birds], 4700 [mammals], 5050 [reptiles and amphibians] and 5515 [fish] allows the designation of a species as Fully Protected. This is a greater level of protection than is afforded by the California Endangered Species Act, since such a designation means the listed species cannot be taken at any time.

Under the California Fish and Game Code Sections 1900-1913 the California Native Plant Protection Act (NPPA) requires all State agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the NPPA prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that would otherwise be destroyed. The project operator is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

CEQA Guidelines Section 15380

Although threatened and endangered species are protected by specific federal and State statutes, CEQA Guidelines section 15380 provides that a species not listed on the federal or State list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in the Guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a "candidate species" that has not yet been listed by either the USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

As described in Section 4.6.1.8 Special-Status Species, for the purposes of this EIR "special-status species" includes those that may be considered rare or endangered pursuant to Section 15380 of the CEQA Guidelines (these include plant species with CRPR of 1, 2, 3, or 4 and candidate species).

State Regulation of Waters Including Wetlands

Regional Water Quality Control Board

Under Section 401 of the CWA, the RWQCB must certify that actions receiving authorization under Section 404 of the CWA also meet state water quality standards. The RWQCB also regulates waters of the State under the Porter-Cologne Act Water Quality Control Act (Porter-Cologne Act). Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Projects that affect wetlands or waters of the State must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification or waiver under Section 401 of the CWA.

The RWQCB requires projects to avoid impacts to wetlands if feasible and requires that projects do not result in a net loss of wetland acreage or a net loss of wetland function and values. In addition California defines wetlands by presence of one or more of the following three attributes in addition to wetland hydrology:

- At least periodically, the land supports predominantly hydrophytes (at least 50 percent of the aerial vegetative cover);
- The substrate is predominantly undrained hydric soil; and
- The substrate is not soil (such as a rocky shore) and is saturated with water or covered by shallow water at some time during the growing season of each year.

Under normal circumstances, the federal definition of wetlands requires all three wetland identification parameters to be met, whereas the California definition requires the presence of at least one of these parameters. For this reason, identification of wetlands by state agencies consists of the union of all areas with a non-soil substrate that are periodically inundated or saturated, or in which at least seasonal dominance by hydrophytes may be documented, or in which hydric soils are present.

California Department of Fish and Wildlife

Under Sections 1600-1616 of the California Fish and Game Code, the CDFW regulates activities that would substantially divert, obstruct the natural flow, or substantially change of rivers, streams and lakes. The jurisdictional limits of CDFW are defined in Section 1602 of the California Fish and Game Code as, "bed, channel, or bank of any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake…." The CDFW requires a Streambed Alteration Agreement for activities within its jurisdictional area. If CDFW determines that a project would result in substantial adverse effects on an existing fish or wildlife resource, CDFW would prepare a Lake or Streambed Alteration Agreement that includes reasonable measures to protect the resources.

California Coastal Commission

The California Coastal Commission (CCC), in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone under the California Coastal Act (Coastal Act). On land the coastal zone varies in width from several hundred feet in highly urbanized areas to five miles in certain rural areas. Offshore the coastal zone encompasses a 3-mile-wide band of ocean. Development activities are broadly defined by the Coastal Act to include: the construction of buildings and structures, divisions of land, and activities that change the intensity of use of land or public access to coastal waters. A development activity within the coastal zone generally requires a coastal development permit from either the CCC, or from a local government with a certified Local Coastal Program, to ensure that the activity complies with the Coastal Act. The Coastal Act includes goals and policies that constitute the statutory standards that are applied to planning and regulatory decisions made by the CCC and by local governments.

Provisions and Policies Applying to Sensitive Communities in both Wetlands and Uplands

California Coastal Act Provisions and ESHAs

The Coastal Act defines "environmentally sensitive habitat areas" (ESHAs) as "any area in which plant or animal life or their habitats 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" (Public Resources Code (PRC) Section 30107.5). The CCC generally treats wetlands, streams, riparian habitats, and open coastal waters as ESHAs, although exceptions may exist where the definition of ESHA is not satisfied. Because the CCC typically defines wetlands based on a "one-parameter approach" CCC jurisdictional wetlands are typically greater in extent than those claimed by the USACE. An ESHA may also be found in upland areas, for example stands of large, mature trees in an area otherwise lacking such habitat.

The principal Coastal Act policy pertaining to ESHAs is PRC Section 30240, which provides: "Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas."

As discussed in connection with wetlands, above, the ESHA policy is applied by the CCC or by local agencies with approved Local Coastal Plans.

Habitat Management and Conservation Plans

1997 Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California

The Fort Ord Disposal and Reuse Environmental Impact Statement identified the need to develop and implement a multispecies Habitat Management Plan (HMP) as a mitigation measure for impacts on vegetation and wildlife resources resulting from pre-disposal, disposal, and reuse actions, such as hazardous materials remediation. The 1997 installation-wide HMP addresses those potential impacts and promotes preservation, enhancement, and restoration of habitat and populations of HMP covered species, while allowing development on selected properties. For the most part, the proposed project will not occur in lands covered under the HMP. The exception to

this would be the construction of the Terminal Reservoir and ASR Pump Station, Transfer Pipeline east of General Jim Moore Boulevard, and the ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin. Installation of the Transmission Main within the TAMC right-of-way is outside of the Former Fort Ord and outside of the HMP area.

2012 Draft Installation-Wide Multispecies Habitat Conservation Plan for Former Fort Ord

FORA is preparing a Draft Habitat Conservation Plan for the former Fort Ord military base entitled *Draft Installation-Wide Multispecies Habitat Conservation Plan* (Draft HCP; Fort Ord Reuse Authority, 2012). The Draft HCP provides a framework for ensuring conservation and enhancement of 19 special-status plant and animal species and the natural communities that support them on the former Fort Ord military base that would contribute to species recovery and is based on the HMP described above. Once finalized, the HCP will serve as the basis for issuance of a base-wide Section 2081 (California Endangered Species Act [CESA]) incidental take permit by CDFW and also as the basis for issuance of a base-wide Section 10(a)(1)(B) (federal Endangered Species Act) incidental take permit by the USFWS. The Draft HCP incorporates all relevant information from the HMP described above issued by the USACE in April 1997, and, once finalized, will supersede it as the primary conservation planning document for non-federal recipients of the former Fort Ord lands.

Once finalized, the HCP will accompany applications to CDFW and USFWS for incidental take of species addressed in the HCP. USFWS will consider issuance of permits for all HCP species but CDFW can only issue permits for state-listed or candidate species. Upon approval of the applications, including the HCP and other supporting documentation, permits will be issued for a term of 50 years. The HCP is expected to be complete in 2016.

Similar to the HMP, the majority of the proposed project will not occur in lands covered under the HCP, with the exception of the Terminal Reservoir and ASR Pump Station, Transfer Pipeline east of General Jim Moore Boulevard, and the ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin. Installation of the Transmission Main within the TAMC right-of-way is outside of the Former Fort Ord and outside of the HCP area.

4.6.2.3 Applicable State, Regional, and Local Land Use Plans and Policies Relevant to Terrestrial Biological Resources

Table 4.6-2 presents the state, regional, and local land use plans, policies, and regulations pertaining to biological resources that are relevant to the MPWSP and that were adopted for the purpose of avoiding or mitigating an environmental effect. A general overview of these policy documents is presented in Section 4.8, Land Use, Land Use Planning, and Recreation. Also included in **Table 4.6-2** is an analysis of project consistency with such plans, policies, and regulations. Where the analysis concludes the proposed project would not conflict with the applicable plan, policy, or regulation, the finding is noted and no further discussion is provided. Where the analysis concludes the proposed project may conflict with the applicable plan, policy, or regulation, the reader is referred to Section 4.6.3, Impacts and Mitigation Measures, for additional discussion.

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TABLE 4.6-2
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Land Use – Primary Policies	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main	***Policy 2.4.4:*** Wherever possible, lands with significant agricultural, natural habitat, or scenic value shall be retained and protected from degradation.	This policy is intended to preserve and protect sensitive natural communities.	Potentially Inconsistent: Installation of the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main and maintenance of the subsurface slant wells would occur within sensitive natural communities. This issue is addressed further in Impacts 4.6-2 and 4.6-6 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***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.	This policy is intended to protect important agricultural, biological, air, water, and energy resources from impacts of development.	Potentially Inconsistent: Installation of the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main and maintenance of the subsurface slant wells 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 4.6-1, 4.6-2, 4.6-3, 4.6-5, 4.6-6, and 4.6-7 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 4.114:*** 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). (2006-243)	This policy is intended to protect sensitive natural communities (which may include wetlands and waters) and sites supporting special-status species.	Potentially Inconsistent: Installation of the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main and maintenance of the subsurface slant wells 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 4.6-1, 4.6-2, 4.6-3, 4.6-5, 4.6-6, and 4.6-7 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 4.115:*** Within areas for which there is an approved (HMP) or (HCP) and where avoidance of significant impacts is not feasible as determined through discretionary review, a seasonal avoidance and/or salvage/relocation program for certain species and habitat areas should be established or undertaken, as appropriate, prior to site development.	This policy is intended to protect special-status species and sensitive natural communities within areas where there is an approved HMP or HCP.	Consistent: There are no approved HMPs or HCPs that cover the sites of the proposed subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main.
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 4.116:*** 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).	This policy is intended to protect sensitive natural communities (which may include wetlands and waters) in areas not subject to an approved HMP or HCP.	Potentially Inconsistent: Installation of the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main and maintenance of the subsurface slant wells would occur within, and could disrupt, sensitive natural communities (which may include wetlands and waters). This issue is addressed further in Impacts 4.6-2, 4.6-3, 4.6-6, and 4.6-7 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 4.118:*** 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.	This policy is intended to protect areas designated as Habitat Reserves" or other sensitive natural communities (which may include wetlands and waters).	Potentially Inconsistent: The subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main 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 of the facilities and maintenance of the subsurface slant wells could disrupt such communities. This issue is addressed further in Impacts 4.6-1, 4.6-2, 4.6-3, 4.6-5, 4.6-6, and 4.6-7 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 4.119:*** 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 CDFW unless approved habitat management plans are already in place.	This policy is intended to identify and protect special-status species and sensitive natural communities (which may include wetlands and waters) on undeveloped lands in former Fort Ord and on the Armstrong Ranch.	Potentially Inconsistent: Installation of the Transmission Main would occur on undeveloped lands within the former Fort Ord that potentially support special-status species and sensitive natural communities (which may include wetlands and waters). Surveys to identify presence of these species, and then avoid impacts to these species, are not included as part of the proposed project. This issue is addressed further in Impacts 4.6-1, 4.6-2 and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. Installation of the subsurface slant wells, Source Water Pipeline, and Desalinated Water Pipeline would not occur within former Fort Ord lands or on the Armstrong Ranch.
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 4.120:*** Oak woodland shall be protected to the greatest extent possible in recognition both of its relatively high biological and aesthetic resource value and its important role in California's and Monterey County's natural heritage. In areas supporting oak woodland, a site survey of this resource should be completed for all new subdivisions and commercial projects as part of a preliminary site and development review. All stands of oak woodland and individual specimens with a diameter of 6 inches or more when measured 4.5 feet from ground level should be identified on a base map. To the greatest extent possible, development plans shall then attempt to incorporate the oak woodland or individual specimens into the plan as an integral feature of the natural and built environment. All oak trees shall be replaced and maintained with new trees of the same stock as those found onsite or in the site vicinity according to the following replacement formula: a minimum one-for-one (one replacement tree for each tree removed) where replacement trees are proposed to be the same diameter or greater than those to be removed; a minimum three-to-one (three replacement trees for each tree removed) for replacement trees of lesser diameter than those proposed for removal, unless, as determined by arborist, the site's specific environmental conditions would not sufficiently support a healthy oak habitat. All diameter measurements shall be taken at 4.5 feet from ground level. Replacement trees shall be a mixture of sizes.	This policy is intended to protect oak woodlands and individual oak trees.	Potentially Inconsistent: Oak woodlands do not occur within the sites of the proposed subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main. However, a tree survey has not been conducted at these sites and individual oak trees could occur within the Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main sites. these facilities. This issue is addressed further in Impact 4.6-4 and a mitigation measure is provided to reduce or avoid any impacts.
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 4.121:*** In those areas where the potential for vernal pools exists, a site survey shall be conducted by a qualified biologist. Any development or grading of a site found to have one or more vernal pools shall provide a wetland buffer of sufficient width and size, as determined by a qualified biologist, between the vernal pond habitat, including associated wetland vegetation, and the proposed or existing development to both protect those species most sensitive to development disturbances and complement the habitat value of the wetland resource. Structures allowed within the wetland buffer shall be limited to those required for providing public access and nature observation. Grading within identified vernal ponds shall be limited to that necessary for habitat restoration, enhancement and protection or as may otherwise be recommended by a qualified biologist. No soil disturbance shall occur during the rainy season within the designated vernal pond and buffer area. Grading within the drainage area of vernal ponds but outside the designated wetland buffer may be allowed in accordance with the provisions of an approved erosion control and landscape plan pursuant to Policy 4.125.1 of this plan with appropriate measures employed as needed to protect the wetland habitat.	This policy is intended to protect wetlands classified as vernal pools and/or vernal ponds.	Potentially Inconsistent: Vernal ponds (including the pond associated with Locke-Paddon Park) occur in the vicinity of the proposed Desalinated Water Pipeline alignment and could be adversely affected by pipeline construction. This issue is addressed further in Impacts 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 4.122:*** 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.	This policy is intended to protect sensitive natural habitats and species from impacts of nighttime lighting.	*MPWSP consistency with plans, policies, and ordinances related to nighttime lighting is presented Section 4.14, Aesthetic Resources.*
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Land Use	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***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	This policy is intended to protect significant plants and wildlife from impacts of development.	Potentially Inconsistent: The subsurface slant wells, Source Water Pipeline, and Transmission Main 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 of the facilities and maintenance of the subsurface slant wells could disrupt such communities. This issue is addressed further under Impacts 4.6-1, 4.6-2, 4.6-3, 4.6-5, 4.6-6, and 4.6-7 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Marina (coastal zone and inland areas) (cont.)				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, 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 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.		
City of Marina (coastal zone)	City of Marina Local Coastal Land Use Plan	Policies	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 8:*** To prohibit further degradation of the beach environment and conserve its unique qualities.	This policy is intended to protect beach habitat.	Potentially Inconsistent: Installation of the subsurface slant wells and a portion of the Source Water Pipeline and maintenance of the subsurface slant wells may occur within, and could disrupt, beaches. This issue is addressed further in Impacts 4.6-2 and 4.6-6 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina (coastal zone)	City of Marina Local Coastal Land Use Plan	Policies	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 19:*** To promote restoration and protection of native dune habitat and vegetation.	This policy is intended to protect native dune habitat, including vegetation.	Potentially Inconsistent: Installation of the subsurface slant wells and portions of the Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main and maintenance of the subsurface slant wells would occur within, and could disrupt, native coastal dune scrub. This issue is addressed further in Impacts 4.6-2 and 4.6-6 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina (coastal zone)	City of Marina Local Coastal Land Use Plan	Policies	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 23:*** To support continuation of the coastal-dependent sand mining operations as long as they are economically feasible and their operations are managed with sensitivity to the adjacent dune environment.	This policy is intended to ensure that continued coastal-dependent sand mining operations are protective of nearby dune environments.	Consistent: The proposed project does not include coastal-dependent sand mining operations.
City of Marina (coastal zone)	City of Marina Local Coastal Land Use Plan	Policies	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***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.	This policy is intended to protect vernal ponds.	Potentially Inconsistent: Vernal ponds (including the pond associated with Locke-Paddon Park) occur in the vicinity of the proposed Desalinated Water Pipeline alignment and could be adversely affected by pipeline construction. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina (coastal zone)	City of Marina Local Coastal Land Use Plan	Policies	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***Policy 25:*** To protect the habitat of recognized rare and endangered species found in the Coastal Dunes.	This policy is intended to protect special-status species habitat found in coastal dunes.	Potentially Inconsistent: Installation of the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main and maintenance of the subsurface slant wells would occur within, and

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Marina (coastal zone) (cont.)						could disrupt native coastal dune scrub, where special-status species are either known to occur or have potential to occur. This issue is addressed further in Impacts 4.6-1, 4.6-2, 4.6-5, and 4.6-6 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina (coastal zone)	City of Marina Local Coastal Land Use Plan	Policies	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***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.	This policy is intended to protect areas of rare and endangered species habitat (including wetlands) from impacts of development.	Potentially Inconsistent: Installation of the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main and maintenance of the subsurface slant wells would occur adjacent to, and could indirectly disrupt, special-status species habitat (including wetlands). This issue is addressed further in Impacts 4.6-1, 4.6-2, 4.6-3, 4.6-5, 4.6-6, and 4.6-7 and mitigation measures are provided to reduce or avoid any impacts.
City of Marina (coastal zone)	City of Marina Local Coastal Land Use Plan	Planning Guidelines	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	**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 map[1] 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.	This policy is intended to protect special-status species habitat (including wetlands), which includes primary habitat (defined as all of the environmentally sensitive habitat areas in Marina) and secondary habitat (defined as areas adjacent to primary habitat areas within which development must be sited and designed to prevent impacts which would significantly degrade the primary habitat).	Potentially Inconsistent: Installation of the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main and maintenance of the subsurface slant wells 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 Impacts 4.6-1, 4.6-2, 4.6-3, 4.6-5, 4.6-6, and 4.6-7 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Marina (coastal zone) (cont.)				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 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 (coastal zone)	City of Marina Local Coastal Land Use Plan	Planning Guidelines	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	**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	This policy is intended to protect vernal pools and their associated wetlands.	<u>Potentially Inconsistent:</u> Vernal ponds (including the pond associated with Locke-Paddon Park) occur in the vicinity of the proposed Desalinated Water Pipeline alignment. 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 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Marina (coastal zone) (cont.)				biologist as well as other necessary specialists. Grading setbacks, reduction of impervious surface coverage, siltation basins, and other appropriate measures shall be employed to protect the ponds and their wetlands. • A 100 foot riparian setback shall be established from the edge of all wetlands. • The City should encourage State participation in the preservation and restoration of the historic vernal ponds and their wetlands.		
City of Marina (coastal zone and inland areas)	Marina Municipal Code	Chapter 17.51 – Tree Removal, Preservation and Protection	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main	***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.	This policy is intended to protect trees.	Potentially Inconsistent: Installation of the Source Water Pipeline, Desalinated Water Pipeline, and Transmission Main could result in tree removal. This issue is addressed further in Impact 4.6-4 and a mitigation measure is provided to reduce or avoid any impacts. No trees occur at the subsurface slant well site.
City of Monterey (coastal zone)	Del Monte Beach Land Use Plan	Natural Coastal Resources	Monterey Pipeline	***Policy 1:*** Sand Dunes shall be preserved and restored under the direction of a qualified dune biologist. Landscaping and maintenance with native coastal dune plants and elimination of nonnative plant species shall be required. The City shall develop a dune management plan that controls public access in sand dune habitats to prevent damage from human use (trampling of vegetation, collection of plant species, etc.), without prohibiting public access to the ocean. Where pedestrian access through dunes is permitted, well-defined footpaths (e.g., boardwalks) or other means of directing use and minimizing adverse impacts shall be used. Habitat interpretation, signing and litter control shall be included as elements of a dune management plan. The use of vehicles, dogs off leash, and fire rings shall be prohibited in the dune area (see policy 4 in Visual Resources section in LCP. Environmentally sensitive dune habitat areas shall be protected from development and fragmentation by implementing protection standards. Protection standards shall include, but need not be limited to: a. Encouraging retention of open space through deed restrictions or conservation easements. b. Restricting land disturbance and the removal of indigenous plants to the minimum amount necessary for structural improvements. c. Requiring incorporation of appropriate mitigation measures such as setbacks, buffer strips, native landscape plans, drainage control plans and restoration plans. d. Requiring landscaping and maintenance with native coastal dune plants in development proposals and elimination of invasive non-native species (e.g. iceplant and dunegrass). e. Requiring a grading permit for any grading in excess of 50 cubic yards. This grading permit shall stipulate that grading materials shall be deposited in an appropriate sand disposal site within the Del Monte Beach dunes, unless the material is not suitable for beach/dune disposal.	This policy is intended to protect sand dunes, which includes central dune scrub.	Potentially Inconsistent: Installation of the Monterey Pipeline would occur within, and could disrupt, central dune scrub. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey (coastal zone)	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.	This policy is intended to protect sand dunes, which includes central dune scrub.	Potentially Inconsistent: Installation of the Monterey Pipeline would occur within, and could disrupt, central dune scrub. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Monterey (coastal zone) (cont.)				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 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 (coastal zone)	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.	This policy is intended to protect environmentally sensitive habitats (which may include wetlands and waters), including dunes and habitat for Smith's blue butterfly.	<u>Inconsistent:</u> 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 4.6-1, 4.6-2, and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey (coastal zone)	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.	This policy is intended to protect special-status species that may occur in environmentally sensitive habitat areas.	<u>Potentially Inconsistent:</u> A number of special-status species, as listed in **Table 4.6-4**, have potential to occur within environmentally sensitive habitat areas within the Monterey Pipeline alignment. This issue is addressed further in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey (coastal zone)	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.	This policy is intended to protect native oak, pine, and cypress trees and any other significant tree.	<u>Potentially Inconsistent:</u> 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 Impacts 4.6-1 and 4.6-4 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey (coastal zone and inland areas)	Monterey City Code	Chapter 37 – Preservation of Trees and Shrubs	Monterey Pipeline and Ryan Ranch-Bishop Interconnection Improvements	***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.	This policy is intended to preserve and mitigate for the loss of protected trees and Local Landmark Trees.	<u>Potentially Inconsistent:</u> Installation of the Monterey Pipeline and the Ryan Ranch-Bishop Interconnection Improvements 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 4.6-4 and a mitigation measure is provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Monterey (coastal zone)	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.	This policy is intended to protect Smith's Blue butterfly habitat.	Potentially Inconsistent: Installation of the Monterey Pipeline could occur within, and disrupt, Smith's Blue butterfly habitat. This issue is addressed further in Impacts 4.6-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey (coastal zone)	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.	This policy is intended to protect special-status species that may occur in environmentally sensitive habitat areas.	Potentially Inconsistent: 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 Impacts 4.6-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey (coastal zone)	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.	This policy is intended to protect native oak, pine, and cypress trees and any other significant tree.	Potentially Inconsistent: 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 Impacts 4.6-1 and 4.6-4 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey (coastal zone)	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.	This policy is intended to protect dune habitat.	Potentially Inconsistent: Installation of the Monterey Pipeline could occur within, and disrupt, central dune scrub. This issue is addressed further in Impacts 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Pacific Grove (coastal zone and inland areas)	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. • **Monarch Butterfly Habitat Trees.** All Trees in or within 100 yards of designated Monarch Sanctuaries. For the purposes of this title, the following sites are designated as Monarch Sanctuaries, serving as official Pacific Grove monarch butterfly over-wintering sites: - Monarch Grove Sanctuary. That portion of land bordered on the east and west by Ridge Road and Grove Acre Avenue, respectively, on the south by Short Street, and on the north by the northerly boundary of assessor's parcel numbers 006-361-30-031, -032, -033, and -034, extended from Grove Acre easterly to Ridge Road. - Washington Park Site. That portion of land bordered on the east and west by Alder Street and Melrose Avenue, respectively, on the north by Pine Avenue, and on the south by the imaginary extension of Junipero Avenue westerly from Alder to Melrose.	This policy is intended to protect native trees and monarch butterfly habitat trees.	Potentially Inconsistent: Installation of the Monterey Pipeline could result in the removal of native trees. This issue is addressed further in Impacts 4.6-1 and 4.6-4 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.
City of Sand City (coastal zone)	Sand City Local Coastal Program Land Use Plan	Costal Resource Management	Transmission Main, Transfer Pipeline, and Monterey Pipeline	***Policy 4.3.19:*** Designate general areas as sensitive habitats as shown on the Coastal Resources Map (Figure 7 in the LCP). Where development is proposed in these areas, require field surveys by qualified biologists or agencies in order to determine exact locations of environmentally sensitive habitat areas and to recommend mitigation measures to minimize habitat impacts. Standards for biological field surveys will be set forth by the City.	This policy is intended to protect environmentally sensitive habitat areas from impacts of development projects.	Potentially Inconsistent: Installation of the Transmission Main may occur within, and disturb, "Habitat Area 5," which is mapped as an environmentally sensitive habitat area in the Sand City LCP. This issue is addressed in Impacts 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Sand City (coastal zone)	Sand City Local Coastal Program Land Use Plan	Costal Resource Management	Transmission Main, Transfer Pipeline, and Monterey Pipeline	***Policy 4.3.20:*** Environmentally sensitive habitat areas shall be protected as follows: a. Habitat Areas 1 and 2 (shown on Figure 7 in the LCP; south of Tioga along the inland side of the freeway) are designated as habitat consolidation and preservation areas. In these small-lot areas, where a specific plan is required for future development, habitat areas, shall be consolidated, enhanced, and preserved thereafter, and development shall	This policy is intended to protect environmentally sensitive habitat areas from impacts of development projects.	Potentially Inconsistent: Installation of the Transmission Main may occur within, and disturb, "Habitat Area 5," which is mapped as an environmentally sensitive habitat area in the Sand City LCP. This issue is addressed in Impacts 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Sand City (coastal zone) (cont.)				be clustered. Any adverse impacts of such a specific development plan on native plant habitat (destruction of individual plants, elimination of natural dune area) may be mitigated, in addition to the required consolidation, off-site in designated restoration areas (see Policy 4.3.22b). b. Habitat Area 3 (shown on Figure 7 in the LCP; north of Tioga along the freeway) is designated as a habitat preservation area. Development shall be limited to research and education, removal of iceplant, and fencing or other means of public access control. c. Habitat Area 4 (shown on Figure 7 in the LCP; north of the Monterey Sand Co. road along the freeway) is designated as a habitat preservation and enhancement area. No development shall occur except for native habitat enhancement activities, research and education, including removal of iceplant, planting of suitable native plant species, installation of temporary irrigation systems, and fencing or other means of public access control. Existing native plant communities in this area shall not be disrupted by enhancement activities. d. Habitat Area 5 (shown on Figure 7 in the LCP; north of Tioga along the SPRR) is designated as a habitat relocation area. In this area, no development (such as grading or removal of major vegetation) shall occur unless and until the endangered species Monterey ceanothus (C. rigidus) and Sandmat manzanita (Arcostaphylos pumila) are both successfully established in a 4 or another suitable area of the coastal zone (see Policy 4.3.22b). e. New uses proposed adjacent to locations of known environmentally sensitive habitats shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.		
City of Sand City (coastal zone)	Sand City Local Coastal Program Land Use Plan	Costal Resource Management	Transmission Main, Transfer Pipeline, and 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*).	This policy is intended to protect environmentally sensitive habitat areas (which may include wetlands and waters) and special-status species including Smith's blue butterfly.	<u>Potentially Inconsistent:</u> Installation of the Transmission Main, Transfer Pipeline, and 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 4.6-1, 4.6-2 and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Sand City (coastal zone) (cont.)				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, withreliance on public and/or private funding sources and ownership. Options for such management may be further pursued as part of the Implementation Plan, and shall include at least: a. contribution of funds by developments requiring habitat preservation/ enhancement/relocation measures. b. dedication of restored habitats to a public agency or private conservation organization with habitat management capabilities.		
City of Sand City (coastal zone)	Sand City Local Coastal Program Land Use Plan	Costal Resource Management	Transmission Main, Transfer Pipeline, and Monterey Pipeline	***Policy 4.3.23:*** Require implementation of dune stabilization and/or restoration programs as a part of new developments west of Highway One, in areas shown on Figure 7 in the LCP. Requirements for these programs shall include: a. A professional survey and habitat protection plan including relevant items set forth in Policy 4.3.22a. b. Identification of any grading proposed for recontouring and/or dune stabilization. c. Maximum use of native plant materials, including rare and endangered species. d. A maintenance program which includes: 1. initiation of restoration activities prior to occupancy of new developments. 2. completion of restoration activities within a five-year period, during which the owner, developer, homeowners association, an assessment district or other appropriate management agency accepts responsibility for the restoration activity.	This policy is intended to protect sensitive natural dune communities from impacts of development projects west of Highway 1.	Potentially Inconsistent: Installation of a portion of the Transmission Main would occur west of Highway 1 and may occur within, and disrupt, central dune scrub, a sensitive natural community. This issue is addressed in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Sand City (coastal zone and inland areas)	Sand City Municipal Code	Chapter 16.12 – Significant Tree Protection	Transmission Main, Transfer Pipeline, and Monterey Pipeline	***Chapter 16.12 – Significant Tree Protection*** – regulates for the preservation of significant trees on private and public property to protect and enhance the City's urban environment, property values and visitor-attraction qualities. A significant tree removal permit is required to be obtained from the City for the removal, cutting down, or trimming of more than one-third of the green foliage of, poisoning, or otherwise killing or destroying of any significant tree. A significant tree is defined as any tree which is equal to or greater than 10 inches diameter breast height.	This policy is intended to protect significant trees.	Potentially Inconsistent: Installation of the Transmission Main, Transfer Pipeline, and Monterey Pipeline could result in the removal of native trees. This issue is addressed further in Impacts 4.6-1 and 4.6-4 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside (coastal zone)	City of Seaside Local Coastal Program Land Use Plan	Coastal Zone	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.	This policy is intended to protect natural coastal resources, such as sensitive natural communities, wetlands, and special-status species.	Potentially Inconsistent: 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 4.6-1, 4.6-2 and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside (coastal zone)	City of Seaside Local Coastal Program 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.	This policy is intended to protect environmentally sensitive habitat areas (which may include wetlands and waters).	Potentially Inconsistent: 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 4.6-2, and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside (coastal zone)	City of Seaside Local Coastal Program Land Use Plan	Coastal Zone	Monterey Pipeline	***Policy NCR-CZ 1.2.B:*** Protection of ESHA I. ESHAs shall be protected against significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. II. 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. III. 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.	This policy is intended to protect environmentally sensitive habitat areas (which may include wetlands and waters).	Potentially Inconsistent: 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 4.6-2 and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Seaside (coastal zone) (cont.)				IV. 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.		
City of Seaside (coastal zone)	City of Seaside Local Coastal Program 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.	This policy is intended to protect wetlands.	Potentially Inconsistent: Installation of the Monterey Pipeline could occur within, and disturb, wetlands. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside (coastal zone)	City of Seaside Local Coastal Program Land Use Plan	Coastal Zone	Monterey Pipeline	***Policy NCR-CZ 1.3.B:*** Protection of Wetlands I. The biological health and productivity of wetland areas shall be maintained, and where feasible, restored. II. Development that may have an adverse effect on a wetland shall not be allowed. III. 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.	This policy is intended to protect wetlands and waters.	Potentially Inconsistent: Installation of the Monterey Pipeline could occur within, and disturb, wetlands and waters. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. Water quality is addressed in EIR Section 4.3, Surface Water Hydrology and Water Quality.
City of Seaside (coastal zone)	City of Seaside Local Coastal Program 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 longterm biological integrity of the resource. All identified necessary buffers and/or setbacks required to ensure the biological integrity of the resource shall be mapped. i. 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. ii. 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. iii. 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.	This policy is intended to protect environmentally sensitive habitat areas (which may include wetlands and waters).	Potentially Inconsistent: 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 Impacts 4.6-2 and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Seaside (coastal zone) (cont.)				• 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.		
City of Seaside (coastal zone)	City of Seaside Local Coastal Program 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).	This policy is intended to protect environmentally sensitive habitat areas (which may include wetlands and waters).	Potentially Inconsistent: 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 4.6-2 and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside (coastal zone and inland areas)	Seaside General Plan	Conservation/Open Space	Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR Facilities (ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin), and Terminal Reservoir/ASR Pump Station	***Policy COS-4.1:*** Preserve ecological and biological resources by maintaining these resources as open space.	This policy is intended to protect sensitive natural communities which may include wetlands and waters).	Potentially Inconsistent: Installation of the Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR5 and ASR-6 wells, and Terminal Reservoir/ASR Pump Station could occur within and disturb sensitive natural communities (which may include wetlands and waters) as listed in **Table 4.6-4**. This issue is addressed further in Impacts 4.6-2 and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside (coastal zone and inland areas)	Seaside General Plan	Conservation/Open Space	Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR Facilities (ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin), and Terminal Reservoir/ASR Pump Station	***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.	This policy is intended to protect wetlands and waters.	Potentially Inconsistent: Installation of the Transmission Main, Monterey Pipeline, ASR-5 and ASR-6 Wells, and Terminal Reservoir/ASR Pump Station could occur within, and/or disturb, wetlands or waters. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. Potential wetlands or waters were not observed within the Transfer Pipeline alignment.
City of Seaside (coastal zone and inland areas)	Seaside General Plan	Conservation/Open Space	Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR Facilities (ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin), and Terminal Reservoir/ASR Pump Station	***Policy COS-4.3:*** Encourage the preservation and enhancement of oak woodland elements in the natural and built environments.	This policy is intended to protect oak woodlands.	Potentially Inconsistent: Installation of the Monterey Pipeline and ASR facilities (ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin) could occur within and disturb oak woodlands. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.
City of Seaside (coastal zone and inland areas)	Seaside Municipal Code	Chapter 8.54 – Trees	Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR Facilities (ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin), and Terminal Reservoir/ASR Pump Station	***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.	This policy is intended to protect trees.	Potentially Inconsistent: Installation of the Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR facilities (ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin), and Terminal Reservoir/ASR Pump Station could result in removal or alteration of trees. This issue is addressed further in Impacts 4.6-1 and 4.6-4 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (inland areas)	Carmel Valley Master Plan	Natural Resources	Valley Greens Pump Station (site Options 1 and 2); Main System-Hidden Hills Interconnection Improvements	***Policy CV-3.7*** Areas of biological significance shall be identified and preserved as open space. These include, but are not limited to: a. The redwood community of Robinson Canyon; b. The riparian community and redwood community of Garzas Creek; c. All wetlands, including marshes, seeps, and springs (restricted occurrence, sensitivity, outstanding wildlife value). d. Native bunchgrass stands and natural meadows (restricted occurrence and sensitivity). e. Cliffs, rock outcrops, and unusual geologic substrates (restricted occurrence). f. Ridgelines and wildlife migration routes (wildlife value).	This policy is intended to protect sensitive natural communities (which may include wetlands and waters) and wildlife corridors.	Consistent: Sensitive natural communities (which may include wetlands and waters) and wildlife corridors do not occur at the proposed Valley Greens Pump Station (site options 1 & 2) site or Main System-Hidden Hills Interconnection Improvements site.
County of Monterey (inland areas)	Carmel Valley Master Plan	Natural Resources	Valley Greens Pump Station (site Options 1 and 2); Main System-Hidden Hills Interconnection Improvements	***Policy CV-3.8:*** Development shall be sited to protect riparian vegetation, minimize erosion, and preserve the visual aspects of the Carmel River. In places where the riparian vegetation no longer exists, it should be planted to a width of 150 feet from the river bank, or the face of adjacent bluffs, whichever is less. Density may be transferred from this area to other areas within a lot.	This policy is intended to protect sensitive natural communities and wetlands and waters of the Carmel River.	Consistent: The Valley Greens Pump Station (site options 1 and 2) and Main System- Hidden Hills Interconnection Improvements would not occur in the vicinity of the Carmel River.
County of Monterey (inland areas)	Carmel Valley Master Plan	Natural Resources	Valley Greens Pump Station (site Options 1 and 2); Main System-Hidden Hills Interconnection Improvements	***Policy CV-4.1(b):*** Motorized vehicles shall be prohibited on the banks or in the bed of the Carmel River, except by permit from the Water Management District or Monterey County.	This policy is intended to protect sensitive natural communities and wetlands and waters of the Carmel River.	Consistent: The Valley Greens Pump Station (site options 1 and 2) and Main System-Hidden Hills Interconnection Improvements would not occur in the vicinity of the Carmel River and therefore no motorized vehicles would be used within the Carmel River.
County of Monterey (inland areas)	Carmel Valley Master Plan	Natural Resources	Valley Greens Pump Station (site Options 1 and 2) ; Main System-Hidden Hills Interconnection Improvements	***Policy CV-3.10:*** b. Valley oaks should be incorporated on floodplain terraces. c. Weedy species such as pampas grass and genista shall not be planted in the Valley. e. The chaparral community shall be maintained in its natural state to the maximum extent feasible in order to preserve soil stability and wildlife habitat and also be consistent with fire safety standards.	This policy is intended to protect sensitive natural communities.	Consistent: Sensitive natural communities do not occur at the proposed Valley Greens Pump Station (site options 1 and 2) site or Main System-Hidden Hills Interconnection Improvements site.
County of Monterey (inland areas)	Carmel Valley Master Plan	Natural Resources	Valley Greens Pump Station (site Options 1 and 2) ; Main System-Hidden Hills Interconnection Improvements	***Policy CV-3.11:*** The County shall discourage the removal of healthy native oak and madrone and redwood trees in the Carmel Valley Master Plan Area. A permit shall be required for the removal of any of these trees with a trunk diameter in excess of six inches, measured two feet above ground level. Where feasible, trees removed will be replaced by nursery-grown trees of the same species and not less than one gallon in size. A minimum fine, equivalent to the retail value of the wood removed, shall be imposed for each violation. In the case of emergency caused by the hazardous or dangerous condition of a tree and requiring immediate action for the safety of life or property, a tree may be removed without the above permit, provided the County is notified of the action within ten working days. Exemptions to the above permit requirement shall include tree removal by public utilities, as specified in the California Public Utility Commission's General Order 95, and by governmental agencies.	This policy is intended to protect native oak, madrone, and redwood trees.	Potentially Inconsistent: Installation of the Valley Greens Pump Station (site option 1) and Main System-Hidden Hills Interconnection Improvements could result in the removal of native oak, madrone, and redwood trees. This issue is addressed further in Impact 4.6-4 and a mitigation measure is provided to reduce or avoid any impacts. Installation of the Valley Greens Pump Station site option 1 is not anticipated to result in the removal of native oak, madrone, or redwood trees.
County of Monterey (coastal zone and inland areas)	Greater Monterey Peninsula Area Plan	Conservation/Open space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, and Ryan Ranch-Bishop Interconnection Improvements	***Policy GMP-3.5:*** Removal of healthy, native oak, Monterey pine, and redwood trees in the Greater Monterey Peninsula Planning Area shall be discouraged. An ordinance shall be developed to identify required procedures for removal of these trees. Said ordinance shall take into account fuel modification needed for fire prevention in the vicinity of structures and shall include: a. Permit requirements. b. Replacement criteria c. Exceptions for emergencies and governmental agencies	This policy is intended to protect native oak, madrone, and redwood trees.	Potentially Inconsistent: Installation of the of the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, and Ryan Ranch-Bishop Interconnection Improvements could result in the removal of native oak, madrone, and redwood trees. This issue is addressed further in Impact 4.6-4 and a mitigation measure is provided to reduce or avoid any impacts.
County of Monterey (coastal zone and inland areas)	Greater Monterey Peninsula Area Plan	Conservation/Open space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, and Ryan Ranch-Bishop Interconnection Improvements	***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.	This policy is intended to protect wetlands and waters.	Consistent: Installation of the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, and Ryan Ranch-Bishop Interconnection Improvements would not occur within 100-feet of potential wetlands in open space areas.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone and inland areas)	Greater Monterey Peninsula Area Plan	Conservation/Open space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, and Ryan Ranch-Bishop Interconnection Improvements	***Policy GMP-3.9:*** Critical habitat areas should be preserved as open space. When an entire parcel cannot be developed because of this policy, a low intensity, clustered development may be approved. However, the development should be located on those portions of the land least biologically significant so that the development will not upset the natural function of the surrounding ecosystem.	This policy is intended to protect critical habitat.	Potentially Inconsistent: Critical habitat within the vicinity of the Source Water Pipeline and could be indirectly affected by these project facilities. This issue is discussed in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. No impacts to critical habitat are anticipated from installation of the MPWSP Desalination Plant, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, and Ryan Ranch-Bishop Interconnection Improvements sites.
County of Monterey (coastal zone and inland areas)	Monterey County Code	Chapter 21.64 – Special Regulations	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***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.	This policy is intended to protect oak and other native trees.	Potentially Inconsistent: Installation of the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site option 1) could result in the removal of oak and other native trees. This issue is addressed further in Impacts 4.6-4 and a mitigation measure is provided to reduce or avoid any impacts. Installation of the Valley Greens Pump Station site option 1 is not anticipated to result in the removal of oak, madrone, or other native trees.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***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.	This policy is intended to protect special-status species.	Potentially Inconsistent: As detailed in **Table 4.6-4**, special-status species could occur within the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (both site options) sites. Construction of these facilities could result in impacts to special-status species. This issue is addressed further in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***Policy OS-5.1:*** The extent and acreages of critical habitat shall be inventoried to the extent feasible and mapped in GIS. Conservation of listed species shall be promoted.	This policy is intended to protect listed species and critical habitat.	Potentially Inconsistent: As detailed in **Table 4.6-4**, listed species occur or have potential to occur within the Source Water Pipeline, Desalinated Water Pipeline, and Ryan Ranch-Bishop Interconnection Improvements sites. Construction of these project components may disrupt such species. This issue is addressed further in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts. Listed species do not have potential to occur at the MPWSP Desalination Plant, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site options 1 and 2) sites. Critical habitat occurs within the vicinity of the Source Water Pipeline and could be indirectly affected by this facility. This issue is discussed in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone and inland areas) (cont.)						The Main System-Hidden Hills Interconnection Improvements site and Valley Greens Pump Station (site option 1) occur within the California red-legged frog critical habitat boundary. Because the facilities would occur within developed or ruderal areas, they would not be expected to result in the loss of primary constituent elements for that species. Critical habitat is not expected to be impacted by construction of the MPWSP Desalination Plan, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, and Valley Greens Pump Station (site option 2).
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***Policy OS-5.2:*** The extent and acreages of the potentially suitable habitat for listed species shall be inventoried to the extent feasible and mapped in GIS. Conservation of species shall be promoted as provided in the Area Plans.	This policy is intended to protect listed species and critical habitat.	Potentially Inconsistent: As detailed in **Table 4.6-4**, listed species occur or have potential to occur within the Source Water Pipeline, Desalinated Water Pipeline, and Ryan Ranch-Bishop Interconnection Improvements sites. Construction of these project components may disrupt such species. This issue is addressed further in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts. Listed species do not have potential to occur at the MPWSP Desalination Plant, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site options 1 and 2) sites. Critical habitat occurs within the vicinity of the Source Water Pipeline and could be indirectly affected by this facility. This issue is discussed in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. The Main System-Hidden Hills Interconnection Improvements site and Valley Greens Pump Station (site option 1) occur within the California red-legged frog critical habitat boundary. Because the facilities would occur within developed or ruderal areas, they would not be expected to result in the loss of primary constituent elements for that species. Critical habitat is not expected to be impacted by construction of the MPWSP Desalination Plan, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, and Valley Greens Pump Station (site option 2).
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***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.	This policy is intended to protect listed species and critical habitat.	Potentially Inconsistent: As detailed in **Table 4.6-4**, listed species occur or have potential to occur within the Source Water Pipeline, Desalinated Water Pipeline, and Ryan Ranch-Bishop Interconnection Improvements sites. Construction of these project components may disrupt such species. This issue is addressed further in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts. Listed species do not have potential to occur at the MPWSP Desalination Plant, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site options 1 and 2).

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone and inland areas) (cont.)						Critical habitat occurs within the vicinity of the Source Water Pipeline and could be indirectly affected by this facility. This issue is discussed in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. The Main System-Hidden Hills Interconnection Improvements site and Valley Greens Pump Station (site option 1) occur within the California red-legged frog critical habitat boundary. Because the facilities would occur within developed or ruderal areas, they would not be expected to result in the loss of primary constituent elements for that species. Critical habitat is not expected to be impacted by construction of the MPWSP Desalination Plan, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, and Valley Greens Pump Station (site option 2).
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***Policy OS-5.5:*** Landowners and developers shall be encouraged to preserve the integrity of existing terrain and native vegetation in visually sensitive areas such as hillsides, ridges, and watersheds. Routine and Ongoing Agricultural Activities shall be exempt from this policy.	This policy is intended to protect sensitive natural communities.	Potentially Inconsistent: As detailed in **Table 4.6-4**, sensitive natural communities occur or have potential to occur at the proposed Source Water Pipeline and Desalinated Water Pipeline sites. Construction of these facilities could impact sensitive natural communities. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. Sensitive natural communities do not occur at the MPWSP Desalination Plant, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site options 1 and 2) sites.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***Policy OS-5.6:*** Native and native compatible species, especially drought resistant species, shall be utilized in fulfilling landscaping requirements.	This policy is intended to protect native plant species and prevent the introduction and spread of non-native and invasive plant species used in landscaping.	Potentially Inconsistent: 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 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***Policy OS-5.11:*** Conservation of large, continuous expanses of native trees and vegetation shall be promoted as the most suitable habitat for maintaining abundant and diverse wildlife.	This policy is intended to protect sensitive natural communities, trees, and wildlife corridors.	Potentially Inconsistent: As detailed in **Table 4.6-4**, sensitive natural communities occur or have the potential to occur within the Source Water Pipeline and Desalinated Water Pipeline alignments. Construction of these project components could disrupt these communities. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. Installation of the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements,

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone and inland areas) (cont.)						and Valley Greens Pump Station (site option 1) could result in the removal of trees. This issue is addressed further in Impact 4.6-4 and a mitigation measure is provided to reduce or avoid any impacts. Installation of Valley Greens Pump Station site option 2 is not anticipated to result in the removal of trees.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***Policy OS-5.13:*** Efforts to obtain and preserve natural areas of particular biologic, scientific, or educational interest, and restrict incompatible uses from encroaching upon them, shall be encouraged.	This policy is intended to protect sensitive natural communities.	Potentially Inconsistent: As detailed in **Table 4.6-4**, sensitive natural communities occur or have the potential to occur within the Source Water Pipeline and Desalinated Water Pipeline alignments. Construction of these project components could disrupt these communities. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. Sensitive natural communities do not occur at the MPWSP Desalination Plant, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (both site options).
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***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.	This policy is intended to protect sensitive natural communities, wetlands and waters, and special-status species.	Potentially Inconsistent: As detailed in **Table 4.6-4**, 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, the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site options 1 and 2) sites. Construction of the above-referenced project components could disrupt these species, habitats, and communities. These issues are addressed further in Impacts 4.6-1, 4.6-2, and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***Policy OS-5.17:*** The County shall prepare, adopt, and implement a program that allows projects to mitigate the loss of critical habitat. The program may include ratios, payment of fees, or some other mechanisms in consultation with responsible state and/or federal regulatory agencies. Until such time as the program has been established, projects shall mitigate the loss of critical habitat on an individual basis in consultation with responsible state and/or federal regulatory agencies. A Community Plan or Rural Center Plan that includes a mitigation program shall not be subject to this policy.	This policy is intended to protect critical habitat.	Potentially Inconsistent: Critical habitat occurs within the vicinity of the MPWSP Desalination Plant and Source Water Pipeline and could be indirectly affected by these project facilities. This issue is discussed in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. The Main System-Hidden Hills Interconnection Improvements site and Valley Greens Pump Station (site option 1) occur within the California red-legged frog critical habitat boundary. Because the facilities would occur within developed or ruderal areas, they would not be expected to result in the loss of primary constituent elements for that species. No critical habitat exists within, or immediately adjacent to, the Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, and Valley Greens Pump Station (site option 2) sites within unincorporated Monterey County.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***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.	This policy is intended to protect wetlands and waters.	Potentially Inconsistent: Installation of the Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, and Main System-Hidden Hills Interconnection Improvements could disturb wetlands and waters. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. Construction of the MPWSP Desalination Plant and the Valley Greens Pump Station (site options 1 and 2) is not expected to impact waters or waters.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***Policy OS-5.22:*** In order to preserve riparian habitat, conserve the value of streams and rivers as wildlife corridors and reduce sediment and other water quality impacts of new development, the county shall develop and adopt a Stream Setback Ordinance. The ordinance shall establish minimum standards for the avoidance and setbacks for new development relative to streams. The ordinance shall identify specific setbacks relative to the following rivers and creeks so they can be implemented in the Area Plans: Salinas, Carmel River, Arroyo Seco, Pajaro River, Nacimiento, San Antonio, Gabilan Creek, and Toro Creek. The ordinance may identify specific setbacks for other creeks or may apply generic setbacks based on the stream classification developed for the ordinance. The ordinance shall delineate appropriate uses within the setback area that shall not cause removal of riparian habitat, compromise identified riparian wildlife corridors, or compromise water quality of the relevant stream while also taking into consideration uses that serve health and safety purposes. The Stream Setback Ordinance shall apply to all discretionary development, County public projects, and to conversion of lands uncultivated for the previous 30 years, on normal soil slopes over 15% or on highly erodible soils on slopes over 10%.	This policy is intended to protect streams and associated riparian habitat.	Consistent: Streams and associated riparian habitat do not occur in or around the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site options 1 and 2) sites.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***Policy OS-5.23:*** The County shall prepare, adopt and implement a program that allows projects to mitigate the loss of oak woodlands, while also taking into consideration wildfire prevention/protection. Consistent with California Public Resources Code Section 21083.4, the program shall identify a combination of the following mitigation alternatives: a. Ratios for replacement, b. Payment of fees to mitigate the loss or direct replacement for the loss of oak woodlands and monitoring for compliance; and c. Conservation easements. The program shall identify criteria for suitable donor sites. Mitigation for the loss of oak woodlands may be either on-site or off-site. The program shall allow payment of fees to either a local fund established by the County or a state fund. Until such time as the County program is implemented consistent with Public Resources Code Section 21083.4(b), projects shall pay a fee to the state Oak Woodlands Conservation Fund (OWCF). Replacement of oak woodlands shall provide for equivalent acreage and ecological value at a minimum of 1:1 ratio. The program shall prioritize the conservation of oak woodlands that are within known wildlife corridors as a high priority. The oak woodlands mitigation program shall be adopted within 5 years of adoption of the General Plan.	This policy is intended to protect oak woodlands.	Consistent: Oak woodlands do not occur at the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site options 1 and 2) sites.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***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.	This policy is intended to protect wildlife movement corridors.	Consistent: Installation of the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site options 1 and 2) would not substantially disrupt wildlife habitat or movement through wildlife corridors.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Options 1 and 2)	***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.	This policy is intended to protect migratory birds and raptors during the breeding season.	Potentially Inconsistent: Installation of the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site options 1 and 2) could disturb migratory birds and raptors during the breeding season. This issue is addressed further in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts.
County of Monterey (coastal zone and inland areas) (cont.)				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.		
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***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 haulout 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.	This policy is intended to protect environmentally sensitive habitats, wetlands and waters, and special-status species.	Potentially Inconsistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline would occur within central dune scrub. Central dune scrub would likely be considered an environmentally sensitive habitat. Additionally, several special-status species, as listed in **Table 4.6-4**, occur or have the potential to occur within the Source Water Pipeline and Desalinated Water Pipeline alignments. Construction of the above-referenced project components could disrupt these sensitive habitats and species. These issues are addressed further in Impacts 4.6-1 and 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. Potential wetlands or waters were observed within the vicinity of the proposed Source Water Pipeline alignments within the coastal zone of unincorporated Monterey County. Installation of this pipeline could impact these features. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. No potential wetlands or waters were observed in or around the proposed Desalinated Water Pipeline alignment within the coastal zone of unincorporated Monterey County.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***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.	This policy is intended to protect environmentally sensitive habitats (which may include wetlands and waters).	Potentially Inconsistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline would occur within and adjacent to central dune scrub. Central dune scrub would likely be considered an environmentally sensitive habitat. Construction of the above-referenced project components could disrupt this sensitive habitat. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone) (cont.)						Potential wetlands or waters were observed within the vicinity of the proposed Source Water Pipeline alignments within the coastal zone of unincorporated Monterey County. Installation of this pipeline could impact these features. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. No potential wetlands or waters were observed in or around the proposed Desalinated Water Pipeline alignment within the coastal zone of unincorporated Monterey County.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.2.3:*** New development adjacent to locations of environmentally sensitive habitats shall be compatible with the long-term maintenance of the resource. New subdivisions shall be approved only where significant impacts to environmentally sensitive habitats from development of proposed parcels will not occur.	This policy is intended to protect environmentally sensitive habitats (which may include wetlands and waters).	Potentially Inconsistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline would occur within and adjacent to central dune scrub. Central dune scrub would likely be considered an environmentally sensitive habitat. Construction of the above-referenced project components could disrupt this sensitive habitat. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. Potential wetlands or waters were observed within the vicinity of the proposed Source Water Pipeline alignments within the coastal zone of unincorporated Monterey County. Installation of this pipeline could impact these features. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. No potential wetlands or waters were observed in or around the proposed Desalinated Water Pipeline alignment within the coastal zone of unincorporated Monterey County.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.2.4:*** To protect environmentally sensitive habitats and the high wildlife values associated with large areas of undisturbed habitat, the County shall maintain significant and, where possible, contiguous areas of undisturbed land for low intensity recreation, education, or resource conservation use. To this end, parcels of land totally within sensitive habitat areas shall not be further subdivided. On parcels adjacent to sensitive habitats, or containing sensitive habitats as part of their acreage, development shall be clustered to prevent habitat impacts.	This policy is intended to protect environmentally sensitive habitats (which may include wetlands and waters).	Potentially Inconsistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline would occur within and adjacent to central dune scrub. Central dune scrub would likely be considered an environmentally sensitive habitat. Construction of the above-referenced project components could disrupt this sensitive habitat. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. Potential wetlands or waters were observed within the vicinity of the proposed Source Water Pipeline alignments within the coastal zone of unincorporated Monterey County. Installation of this pipeline could impact these features. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. No potential wetlands or waters were observed in or around the proposed Desalinated Water Pipeline alignment within the coastal zone of unincorporated Monterey County.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***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.	This policy is intended to protect environmentally sensitive habitats (which may include wetlands and waters).	Potentially Inconsistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline would occur within and adjacent to central dune scrub. Central dune scrub would likely be considered an environmentally sensitive habitat. Construction of the above-referenced project components could disrupt

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone) (cont.)						this sensitive habitat. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. Potential wetlands or waters were observed within the vicinity of the proposed Source Water Pipeline alignments within the coastal zone of unincorporated Monterey County. Installation of this pipeline could impact these features. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. No potential wetlands or waters were observed in or around the proposed Desalinated Water Pipeline alignment within the coastal zone of unincorporated Monterey County.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.2.6:*** The County shall ensure the protection of environmentally sensitive habitats through deed restrictions or dedications of permanent conservation easements. Where land divisions or development are proposed in areas containing environmentally sensitive habitats, such restrictions or easements shall be established through the development review process.	This policy is intended to protect environmentally sensitive habitats (which may include wetlands and waters).	Potentially Inconsistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline would occur within and adjacent to central dune scrub. Central dune scrub would likely be considered an environmentally sensitive habitat. Construction of the above-referenced project components could disrupt this sensitive habitat. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. Potential wetlands or waters were observed within the vicinity of the proposed Source Water Pipeline alignments within the coastal zone of unincorporated Monterey County. Installation of this pipeline could impact these features. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. No potential wetlands or waters were observed in or around the proposed Desalinated Water Pipeline alignment within the coastal zone of unincorporated Monterey County.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.2.8:*** Where development is permitted in or adjacent to environmentally sensitive habitat areas (consistent with all other resource protection policies), the County, through the development review process, shall restrict the removal of indigenous vegetation and land disturbance (grading, excavation, paving, etc.) to the minimum amount necessary for structural improvements.	This policy is intended to protect environmentally sensitive habitats (which may include wetlands and waters).	Potentially Inconsistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline would occur within and adjacent to central dune scrub. Central dune scrub would likely be considered an environmentally sensitive habitat. Construction of the above-referenced project components could disrupt this sensitive habitat. This issue is addressed further in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts. Potential wetlands or waters were observed within the vicinity of the proposed Source Water Pipeline alignments within the coastal zone of unincorporated Monterey County. Installation of this pipeline could impact these features. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. No potential wetlands or waters were observed in or around the proposed Desalinated Water Pipeline alignment within the coastal zone of unincorporated Monterey County.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.2.9:*** The County shall require the use of non-invasive plant species in proposed landscaping and should encourage the use of appropriate native species or species that are compatible with native plants.	This policy is intended to protect native plant species and prevent the introduction and spread of non-native and invasive plant species used in landscaping.	Potentially Inconsistent: 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 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***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.	This policy is intended to protect breeding rare and endangered birds.	Potentially Inconsistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline could affect breeding rare birds. This issue is addressed further in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts. The Source Water Pipeline and Desalinated Water Pipeline alignments within the coastal zone of unincorporated Monterey County do not contain habitat for endangered birds.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.3.A2:*** Maritime chaparral is an uncommon, highly localized and variable plant community that has been reduced in North County by residential and agricultural development. Further conversion of maritime chaparral habitat to agricultural uses is highly discouraged. Where new residential development is proposed in chaparral areas, it shall be sited and designed to protect the maximum amount of maritime chaparral. All chaparral on land exceeding 25 percent slope should be left undisturbed to prevent potential erosion impacts as well as to protect the habitat itself.	This policy is intended to protect maritime chaparral.	Consistent: Maritime chaparral does not occur within the Source Water Pipeline and Desalinated Water Pipeline alignments.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.3.A4:*** Oak woodland on land exceeding 25 percent slope should be left in its native state to protect this plant community and animal habitat from the impacts of development and erosion. Development within oak woodland on 25 percent slope or less shall be sited to minimize disruption of vegetation and habitat loss.	This policy is intended to protect oak woodland	Consistent: Oak woodland does not occur within the Source Water Pipeline and Desalinated Water Pipeline alignments.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.3.A6:*** Coastal dune habitats in areas shown as Resource Conservation or as Scenic and Natural Resource Recreation on the plan map shall be preserved and protected. Appropriate uses in such areas shall be limited to scientific, education and low intensity recreational uses, and within the Moss Landing area, essential utility pipelines where no feasible alternative exists. Disturbance or destruction of dune vegetation shall be prohibited, unless no feasible alternative exists, and then only if re-vegetation with similar species is made a condition of project approval. Any resulting dune disturbance shall be restored to the natural condition.	This policy is intended to protect coastal dune habitat within areas mapped as Resource Conservation or as Scenic and Natural Resource Recreation.	Consistent: The Source Water Pipeline and Desalinated Water Pipeline alignments are not proposed for areas mapped as Resource Conservation or as Scenic and Natural Resource Recreation.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.3.A9:*** Where major access routes are available or desirable through the dunes to the coast, boardwalks or other appropriate pathways constructed of permeable materials should be provided to protect the vegetation stabilizing the dunes. Other access routes through the dunes should be controlled and only allowed in limited circumstances.	This policy is intended to protect coastal dune habitat where access routes would pass through the dunes to the coast.	Consistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline within the coastal zone of unincorporated Monterey County would not include installation of an access route through the dunes to the coast.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***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.	This policy is intended to protect riparian plant communities associated with streams.	Consistent: Riparian plant communities associated with streams do not occur within or adjacent to the Source Water Pipeline and Desalinated Water Pipeline alignments within the coastal zone of unincorporated Monterey County.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***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.	This policy is intended to protect stream corridors and associated riparian vegetation.	Consistent: Streams do not occur within or adjacent to the Source Water Pipeline and Desalinated Water Pipeline alignments within the coastal zone of unincorporated Monterey County.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.3.B3:*** The following activities shall be prohibited within intermittent and perennial stream channels: cultivated agriculture, pesticide applications, and installation of septic systems would not destroy vegetative ground cover of the stream channel.	This policy is intended to protect intermittent and perennial stream channels.	Consistent: Streams do not occur within or adjacent to the Source Water Pipeline and Desalinated Water Pipeline alignments within the coastal zone of unincorporated Monterey County.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***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.	This policy is intended to protect coastal wetlands.	Potentially Inconsistent: Potential wetlands or waters were observed within the vicinity of the proposed Source Water Pipeline alignments within the coastal zone of unincorporated Monterey County. Installation of this pipeline could impact these features. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. No potential wetlands or waters were observed in or around the proposed Desalinated Water Pipeline alignment within the coastal zone of unincorporated Monterey County.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.3.B5:*** All wetland areas of the North County Coastal Zone shall be protected and preserved for their plant and wildlife values, including but not limited to McClusky Slough, Pajaro River, Salinas River, Salinas River Lagoon, Elkhorn Slough, Bennett Slough, and Moro Cojo Slough. The County's existing Non Pointsource Pollution Program shall be implemented.	This policy is intended to protect wetlands.	Potentially Inconsistent: Potential wetlands or waters were observed within the vicinity of the proposed Source Water Pipeline alignments within the coastal zone of unincorporated Monterey County. Installation of this pipeline could impact these features. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts. No potential wetlands or waters were observed in or around the proposed Desalinated Water Pipeline alignment within the coastal zone of unincorporated Monterey County.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***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.	This policy is intended to protect commercial species of fish and shellfish and other special-status species.	Potentially Inconsistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline could occur during the breeding season and other critical phases of special-status species as listed in **Table 4.6-4**. This issue is addressed further in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts. Impacts related to commercial species of fish and shellfish are discussed in EIR Section 4.5 Marine Resources.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***Policy 2.3.3.C1:*** Wildlife management considerations should be included in the evaluation of development proposals, particularly land division proposals. Large, and where feasible, contiguous areas or corridors of native vegetation should be retained in order to meet the various needs of those wildlife species requiring large areas of undisturbed habitat.	This policy is intended to protect wildlife corridors.	Consistent: Installation and maintenance of the Source Water Pipeline and Desalinated Water Pipeline would not result in the loss of large contiguous areas or wildlife corridors.
County of Monterey (coastal zone)	North County Land Use Plan	Resource Management	Source Water Pipeline and Desalinated Water Pipeline	***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.	This policy is intended to protect sensitive natural communities and habitat for special-status species.	Potentially Inconsistent: Installation of the Source Water Pipeline and Desalinated Water Pipeline would occur within sensitive natural communities and known or potential habitat for special-status species as detailed in **Table 4.6-4**. This issue is addressed further in Impacts 4.6-1 and 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.
County of Monterey (coastal zone)	North County Land Use Plan	Land Use and Development	Source Water Pipeline and Desalinated Water Pipeline	***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.	This policy is intended to provide long-term resource management and protection.	Potentially Inconsistent: Construction of the Source Water Pipeline and the Desalinated Water Pipeline could disrupt sensitive natural communities, wetlands and water, and species dependent upon those habitats. These issues are addressed further in Impacts 4.6-1, 4.6-2 and 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
Fort Ord Reuse Authority (coastal zone and inland areas)	Fort Ord Reuse Plan	Conservation	Terminal Reservoir and ASR Pump Station	***Biological Resources Policy A-2:*** The City shall ensure that measures are taken to prevent degradation and siltation of the ephemeral drainage that passes through the Planned Residential Extension District and Community Park in Polygon 24.	This policy is intended to protect a potential wetland.	Potentially Inconsistent: Installation of the Terminal Reservoir/ASR Pump Station could occur within, and disturb, a potential wetland. This issue is addressed further in Impact 4.6-3 and mitigation measures are provided to reduce or avoid any impacts.
Fort Ord Reuse Authority (coastal zone and inland areas)	Fort Ord Reuse Plan	Conservation	Terminal Reservoir and ASR Pump Station	***Biological Resources Policy A-4:*** The City shall encourage the preservation of small pockets of habitat and populations of HMP species within and around developed areas. ***Program A-4.1:*** The City shall require project applicants who propose development in underdeveloped 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-4.3:*** Where development will replace existing habitat which supports sensitive biological resources, the City 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.	This policy is intended to protect sensitive natural communities and special-status species.	Potentially Inconsistent: Installation of the Terminal Reservoir/ASR Pump Station could occur within, and disrupt, sensitive natural communities or habitat for special-status species as detailed in **Table 4.6-4**. These issues are further addressed in Impacts 4.6-1 and 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.
Fort Ord Reuse Authority (Monterey County)	Fort Ord Reuse Plan	Conservation	Terminal Reservoir and ASR Pump Station	***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.	This policy is intended to protect special-status species.	Potentially Inconsistent: Installation of the Terminal Reservoir/ASR Pump Station could disturb special-status species as detailed in **Table 4.6-4**. This issue is further addressed in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts.
Fort Ord Reuse Authority (coastal zone and inland areas)	Fort Ord Reuse Plan	Conservation	Terminal Reservoir and ASR Pump Station	***Biological Resources Policy B-1:*** The City shall strive to avoid or minimize loss of sensitive species listed in Table 4.4-2 that are known or expected to occur in areas planned for development. ***Program B-1.2:*** If any sensitive species listed in Table 4.4-2 are found in areas proposed for development, all reasonable efforts should be made to avoid habitat occupied by these species while still meeting project goals and objectives. If permanent avoidance is infeasible, a seasonal avoidance and/or salvage/ relocation program shall be prepared. The seasonal avoidance and/or salvage/ relocation program for these species should be coordinated through the CRMP.	This policy is intended to protect special-status species.	Potentially Inconsistent: Installation of the Terminal Reservoir/ASR Pump Station could occur within, and disrupt, habitat for special-status species as detailed in **Table 4.6-4**. This issue is further addressed in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts.
Fort Ord Reuse Authority (coastal zone and inland areas)	Fort Ord Reuse Plan	Conservation	Terminal Reservoir and ASR Pump Station	***Biological Resources Policy C-1:*** The City shall encourage that grading for projects in undeveloped lands be planned to complement surrounding topography and minimize habitat disturbance.	This policy is intended to protect sensitive natural communities.	Potentially Inconsistent: Installation of the Terminal Reservoir/ASR Pump Station could occur within, and disrupt, sensitive natural communities as detailed in **Table 4.6-4**. This issue is further addressed in Impact 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.
Fort Ord Reuse Authority (coastal zone and inland areas)	Fort Ord Reuse Plan	Conservation	Terminal Reservoir and ASR Pump Station	***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.	This policy is intended to protect wildlife and their habitats from nighttime lighting.	Potentially Inconsistent: Operation of the Terminal Reservoir includes the use of outdoor lighting in undeveloped natural lands, which could disrupt wildlife in these areas. This issue is further addressed in Impact 4.6-5 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
Fort Ord Reuse Authority (coastal zone and inland areas)	Fort Ord Reuse Plan	Conservation	Terminal Reservoir and ASR Pump Station	***Biological Resources Policy D-1:*** The City shall require project applicants to implement a contractor education program that instructs construction workers on the sensitivity of biological resources in the vicinity and provides specifics for certain species that may be recovered and relocated from particular development areas.	This policy is intended to protect special-status species.	Potentially Inconsistent: Installation of the Terminal Reservoir/ASR Pump Station could occur within, and disrupt, habitat for special-status species as detailed in **Table 4.6-4**. This issue is further addressed in Impacts 4.6-1 and mitigation measures are provided to reduce or avoid any impacts.
Fort Ord Reuse Authority (Monterey County)	Fort Ord Reuse Plan	Conservation	Ryan Ranch–Bishop Interconnection Improvements	***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.	This policy is intended to protect sensitive natural communities and special-status species.	Potentially Inconsistent: Installation of the Ryan Ranch-Bishop Interconnection Improvements could affect special-status species. This issue is further addressed in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts. Sensitive natural communities do not occur within the Ryan Ranch-Bishop Interconnection Improvements site within unincorporated Monterey County.
Fort Ord Reuse Authority (Monterey County)	Fort Ord Reuse Plan	Conservation	Ryan Ranch–Bishop Interconnection Improvements	**Biological Resources Policy B-1:** The County shall strive to avoid or minimize loss of sensitive species listed in Table 4.4-2 that are known or expected to occur in areas planned for development. ***Program B-1.2:*** If any sensitive species listed in Table 4.4-2 are found in areas proposed for development, all reasonable efforts should be made to avoid habitat occupied by these species while still meeting project goals and objectives. If permanent avoidance is infeasible, a seasonal avoidance and/or salvage/ relocation program shall be prepared. The seasonal avoidance and/or salvage/ relocation program for these species should be coordinated through the CRMP.	This policy is intended to protect special-status species.	Potentially Inconsistent: Installation of the Ryan Ranch-Bishop Interconnection Improvements could affect special-status species. This issue is further addressed in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts.
Fort Ord Reuse Authority (Monterey County)	Fort Ord Reuse Plan	Conservation	Ryan Ranch–Bishop Interconnection Improvements	**Biological Resources Policy C-1:** The County of Monterey shall encourage that grading for projects be designed to complement surrounding topography, minimize habitat disturbance.	This policy is intended to protect sensitive natural communities.	Consistent: Sensitive natural communities do not occur within the Ryan Ranch-Bishop Interconnection Improvements site within unincorporated Monterey County.
Fort Ord Reuse Authority (Monterey County)	Fort Ord Reuse Plan	Conservation	Ryan Ranch–Bishop Interconnection Improvements	***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.	This policy is intended to protect wildlife and their habitats from nighttime lighting.	Consistent: Installation and operations of the Ryan Ranch-Bishop Interconnections Improvements facility would not include night lighting.
Fort Ord Reuse Authority (Monterey County)	Fort Ord Reuse Plan	Conservation	Ryan Ranch–Bishop Interconnection Improvements	***Biological Resources Policy D-1:*** The County shall require project applicants to implement a contractor education program that instructs construction workers on the sensitivity of biological resources in the vicinity and provides specifics for certain species that may be recovered and relocated from particular development areas.	This policy is intended to protect special-status species.	Potentially Inconsistent: Installation of the Ryan Ranch-Bishop Interconnection Improvements could affect special-status species. This issue is further addressed in Impact 4.6-1 and mitigation measures are provided to reduce or avoid any impacts.
City of Monterey (coastal zone)	California Coastal Act	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.	This policy is intended to protect environmentally sensitive habitat areas.	Potentially Inconsistent: 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 4.6-2 and mitigation measures are provided to reduce or avoid any impacts.

TABLE 4.6-2 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES RELEVANT TO TERRESTRIAL BIOLOGICAL RESOURCES

Project Planning Region	Applicable Plan	Plan Element/ Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Monterey (coastal zone)	California Coastal Act	Marine Environment	Monterey Pipeline	***Section 30233:*** Diking, filling or dredging; continued movement of sediment and nutrients a. 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: 1. New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities. 2. Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.	This policy is intended to protect wetlands and waters.	Potentially Inconsistent: Installation of the Monterey Pipeline could occur within, and disrupt, wetlands or waters. This issue is addressed further in Impact 4.6-3 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 4.5, Marine Biological Resources.*
City of Monterey (coastal zone) (cont.)				3. 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. 4. 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. 5. Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas. 6. Restoration purposes. 7. Nature study, aquaculture, or similar resource dependent activities.		

SOURCES: City of Marina, 1982, 2000; City of Monterey, 2003a, 2003b; City of Sand City, 1982, 2002; City of Seaside, 2004, 2012; FORA, 1997; Monterey County 1982,1996, 2010.

4.6.3 Impacts and Mitigation Measures

4.6.3.1 Significance Criteria

Appendix G of the CEQA Guidelines recommends the following significance criteria for the evaluation of biological resources. Implementation of the proposed project would have a significant impact related to biological resources if it would:

- 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 or U.S. Fish and Wildlife Service;

- 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- 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;

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Based on the nature of the proposed project, there would be no impacts related to the following CEQA significance criterion for the reasons described below:

> ***Interfere substantially with the movement of native fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*** There implementation of the proposed project would result in no impact relative to this criterion because the proposed project does not include the placement of structures within creeks, rivers, or other waterways and there are no established native resident or migratory wildlife corridors or wildlife nurseries within the project area. As discussed in Section 4.6.1.7, Wildlife Movement Corridors, the terrestrial wildlife habitat in the project area is fragmented by agricultural fields, residential developments, commercial/industrial developments, and roads and does not serve as wildlife movement corridors.

Local tree ordinances aside, which are discussed in Impact 4.6-4, below, conflicts with all other local policies and ordinances protecting biological resources are addressed throughout this section rather than in stand-alone impact discussion. Potential conflicts were identified in **Table 4.6-2**, above. In instances where the consistency analysis concluded the project may conflict with a policy or ordinance, the reader is referred to specific impact discussions (Impacts 4.6-1, 4.6-2, 4.6-3, etc.) addressing those specific biological resource issues.

In addition to the above-listed CEQA significance criteria, the following significance criteria have been developed to capture the full range of project effects and are used to evaluate project impacts below:

- Result in a substantial adverse effect on federal "other waters" as defined in the Code of Federal Regulations (40 CFR Section 122.2); or
- Result in a substantial adverse effect on Waters of the State, as defined by the California Water Code Section 13050 [e], through direct removal, filling, hydrological interruption, or other means.
- Result in a substantial adverse effect on critical habitat.

4.6.3.2 Approach to Analysis

Approach to Analysis

To determine the level of significance of an identified impact, the criteria outlined in the CEQA Guidelines as well as additional applicable criteria (listed above) were used. The following is a discussion of the approaches to, and definitions of, significance of impacts to biological resources, drawn from several Guidelines sections.

CEQA Guidelines (Section 15065) directs lead agencies to find that a project may have a significant effect on the environment if it has the potential to substantially degrade the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory.

Criteria to assess significant impacts are specified in the CEQA Guidelines Section 15382 (Significant Effect on the Environment) "…a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."

The potential impacts of the project on special-status species were assessed based on literature review, professional judgment, and the following considerations:

1. A determination of occurrence. The determination of occurrence was presented in Section 4.6.1, Setting, above. This determination evaluated each species: (a) potential occurrence within the project area (i.e., the area within which all construction-related disturbance would occur, includes facility footprints); (b) potential occurrence in the project vicinity (generally defined as the terrestrial and aquatic habitats of the areas immediately adjacent to the project area with the potential to be affected by the project); or (c) absence from the project area and project vicinity. This determination was based on an analysis of life history and habitat requirements, as well as the suitability of habitat for the species found within and adjacent to the project area. The impact analyses presented in Sections 4.6.3.4 and 4.6.3.5, below, consider only those species with a moderate to high potential to occur in the project area and/or vicinity.

The results of this determination for each species for the project as a whole are provided in the "Potential for Species Occurrence" column of **Table F-1** located in **Appendix F** of this EIR. **Table 4.6-1**, above, provides the potential for each species considered to occur in habitat within, or immediately adjacent to, each project facility.

2. A determination of impact. The determination of impact is presented in Section 4.6.3.4, Construction Impacts and Mitigation Measures, and Section 4.6.3.5, Operational Impacts and Mitigation Measures. If the species was determined unlikely to occur in the project area or project vicinity, or had a low potential to occur in the project area or project vicinity (for example, if no potential habitat exists for the species in the vicinity), then the species was given no further consideration. If suitable habitat was determined to be present within the project area and the species has been documented in the project vicinity or has at least a moderate potential to occur, the analysis then considered whether project implementation would result in a substantial adverse effect on the species. Both direct effects (e.g., displacement of habitat or direct mortality) and indirect effects (e.g., construction-related noise and dust emissions) were considered. In evaluating the likelihood and severity of an impact, the life history and habitat requirements were also considered.

   For the purposes of this EIR, the definition of the word "substantial" as used in the significance criteria above has three principal factors:

   - Magnitude[13] and duration of the impact;
   - Rarity of the affected resource; and
   - Susceptibility of the affected resource to disturbance.

   The evaluation of significance must also consider the interrelationship of these three factors. For example, a relatively small magnitude impact on a state- or federally listed species could be considered significant if the species is rare and highly susceptible to disturbance. Conversely, for a natural community such as California annual grassland, which is not necessarily considered rare or highly sensitive to disturbance, a much larger magnitude of impact might be required to result in a significant impact.

This project would require authorization from various regulatory agencies including the USACE, USFWS, NMFS, RWQCB, CDFW, and CCC. The mitigation measures prescribed below reflect the anticipated terms and conditions in the authorizations. Based on the professional judgment and experience of the biologists that conducted this analysis, the mitigation measures in this section (and their constituent requirements and performance standards) would minimize and avoid impacts to a less-than-significant level. However, the permitting and resource agencies may require additional and/or more restrictive measures that further bolster the mitigation measures in this section.

4.6.3.3 Summary of Impacts

Table 4.6-3 summarizes the proposed project's impacts and significance determinations related to biological resources.

[13] Magnitude may include the aerial extent of impact, number of species affected, length of time, or intensity of impact.

TABLE 4.6-3
SUMMARY OF IMPACTS – TERRESTRIAL BIOLOGICAL RESOURCES

Impacts	Significance Determinations
Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly or through habitat modification, during construction.	LSM
Impact 4.6-2: Result in substantial adverse effects on riparian habitat, critical habitat, or other sensitive natural communities during construction.	LSM
Impact 4.6-3: Result in substantial adverse effects on federal wetlands, federal other waters, and/or waters of the State during construction.	LSM
Impact 4.6-4: Conflict with local tree ordinances.	LSM
Impact 4.6-5: Result in substantial adverse effects on candidate, sensitive, or special-status species during project operations.	LSM
Impact 4.6-6: Result in substantial adverse effects on riparian habitat, critical habitat, or other sensitive natural communities during project operations.	LSM
Impact 4.6-7: Result in substantial adverse effects on federal wetlands, federal other waters, and waters of the State during project operations.	LSM
Impact 4.6-8: Conflict with the provisions of an adopted Habitat Conservation Plans, natural community conservation plans or other approved local, regional, or state habitat conservation plan.	LSM

LSM = Less than Significant impact with Mitigation

4.6.3.4 Construction Impacts and Mitigation Measures

Impact 4.6-1: Result in substantial adverse effects on species identified as candidate, sensitive, or special-status, either directly or through habitat modification, during construction. (*Less than Significant with Mitigation*)

As defined in Section 4.6.1.8, Special-Status Species, above, special-status species include candidate and sensitive species.

Special-status plants and animals that could potentially occur at the various proposed facility sites and pipeline alignments are summarized in **Table 4.6-1**, and those species with a moderate to high potential to occur at the project sites and that could be significantly impacted during construction are presented in **Table 4.6-4**. Construction activities could result in both direct and indirect adverse effects on special-status biota and wildlife. In general, construction of project facilities in developed areas that have been surfaced, drained, and maintained free of vegetation would have a low potential to result in substantial adverse effects on special-status species. However, if construction were to extend into areas of undeveloped natural vegetation, substantial adverse effects could occur. Construction of project facilities that are proposed within or adjacent to natural, high-quality habitat would have a greater potential to result in significant impacts to special-status plants and animals and/or their habitat compared to facilities adjacent to developed or highly disturbed areas.

TABLE 4.6-4
SPECIAL-STATUS SPECIES AND SENSITIVE NATURAL COMMUNITIES THAT COULD BE SIGNIFICANTLY IMPACTED DURING CONSTRUCTION OF THE PROPOSED PROJECT FACILITIES

Species or Resource	Subsurface Slant Wells	MPWSP Desalination Plant	Pipelines North of Reservation Road			Facilities and Improvements South of Reservation Road									
			Source Water Pipeline	Desalinated Water Pipeline	Salinas Valley Return Pipeline, Brine Discharge Pipeline	Transmission Main	Transfer Pipeline	Monterey Pipeline	ASR-5 and ASR-6 Wells	ASR Settling Basin, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline	Terminal Reservoir/ ASR Pump Station	Valley Greens Pump Station (Site Option 1)	Valley Greens Pump Station (Site Option 2)	Ryan Ranch-Bishop Interconnection Improvements	Main System-Hidden Hills Interconnection Improvements
SPECIAL-STATUS SPECIES															
Federal or State Listed Species															
Plants															
Monterey spineflower	X		X	X		X	X	X	X	X	X				
robust spineflower	X		X	X		X	X		X	X	X				
Seaside bird's-beak	X		X	X		X	X		X	X	X				
Menzies' wallflower	X		X	X		X									
sand gilia	X		X	X		X	X	X	X	X	X				
Yadon's rein orchid							X		X	X	X				X
Invertebrates															
Smith's blue butterfly	X		X			X		X							
Amphibians															
California tiger salamander		X	X	X	X		X				X			X	X
California red-legged frog		X	X	X	X		X				X	X		X	X
Birds															
Western snowy plover	X		X												
Other Special-Status Species															
Plants															
Hickman's onion								X						X	X
Hooker's manzanita	X		X	X		X	X	X	X	X	X				X
Toro manzanita	X		X	X		X	X	X	X	X	X			X	X
Pajaro manzanita						X	X	X	X	X	X			X	X
sandmat manzanita	X		X	X		X	X	X	X	X	X				X
Monterey Coast paintbrush	X		X	X		X	X	X	X	X	X				
Monterey ceanothus	X		X	X		X	X	X	X	X	X				
Congdon's tarplant		X												X	X
branching beach aster	X		X	X		X		X							
Eastwood's goldenbush	X		X	X		X	X	X	X	X	X				X
sand-loving wallflower	X		X	X		X	X	X	X	X	X				
Kellogg's horkelia	X		X	X		X	X	X	X	X	X				
Carmel Valley bush-mallow							X		X	X	X			X	X
marsh microseris														X	X
northern curly-leaved monardella	X		X	X		X	X	X	X	X	X				
south coast branching phacelia	X		X	X		X	X	X	X	X	X				
Michael's rein orchid	X		X	X		X	X	X	X	X	X			X	X
Monterey pine							X	X			X	X	X	X	X
Santa Cruz microseris														X	X
Santa Cruz clover														X	X
Pacific Grove clover														X	X

Table 4.6-4 (Continued)
Special-Status Species AND Sensitive Natural Communities that could be SIGNIFICANTLY IMPACTED during construction OF the proposed project facilities

Species	Subsurface Slant Wells	MPWSP Desalination Plant	Pipelines North of Reservation Road			Facilities and Improvements South of Reservation Road									
			Source Water Pipeline	Desalinated Water Pipeline	Salinas Valley Return Pipeline, Brine Discharge Pipeline	Transmission Main	Transfer Pipeline	Monterey Pipeline	ASR-5 and ASR-6 Wells	ASR Settling Basin, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline	Terminal Reservoir/ ASR Pump Station	Valley Greens Pump Station (Site Option 1)	Valley Greens Pump Station (Site Option 2)	Ryan Ranch-Bishop Interconnection Improvements	Main System-Hidden Hills Interconnection Improvements
SPECIAL-STATUS SPECIES (cont.)															
Other Special-Status Species (cont.)															
Reptiles															
Western pond turtle				X				X							
black legless lizard	X		X	X		X	X	X	X	X	X				
silvery legless lizard	X		X	X		X	X	X	X	X	X				
coast horned lizard	X		X	X		X	X	X	X	X	X				
Birds															
tricolored blackbird				X				X							
western burrowing owl			X	X		X	X				X				
red-tailed hawk		X	X	X	X	X	X	X	X	X	X	X	X	X	X
red-shouldered hawk		X	X	X	X	X	X	X	X	X	X	X	X	X	X
White-tailed kite		X	X	X	X	X	X	X	X	X	X	X	X	X	X
American peregrine falcon		X	X	X	X	X	X	X	X	X	X	X	X	X	X
American kestrel		X	X	X	X	X	X	X	X	X	X	X	X	X	X
loggerhead shrike		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Mammals															
pallid bat		X	X	X	X	X	X	X	X	X	X	X	X	X	X
western red bat		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Monterey dusky-footed woodrat							X		X	X	X			X	X
Monterey shrew							X		X	X	X			X	X
American badger			X	X		X	X		X	X	X			X	X
SENSITIVE NATURAL COMMUNITIES															
Natural Communities															
central dune scrub	X		X	X		X		X							
maritime chaparral							X		X	X	X				
coastal sage scrub									X	X					
riparian woodland and scrub				X				X							
coast live oak woodland								X	X	X					
Critical Habitat															
Monterey spineflower						X					X				
western snowy plover	X		X												
Potential Wetlands and Waters															
Potentially USACE, RWQCB, and/or CDFW jurisdictional						X					X			X	X
Potentially USACE, RWQCB, CDFW, and/or CCC jurisdictional	X		X	X				X							
Local Tree Policies or Ordinances															
		X	X	X	X	X	X	X	X	X	X	X		X	X

Overview of Potential Construction Effects on Plants

Site clearance, grading, excavation, and other earthmoving activities can cause direct mortality of individual special-status plants through soil disturbance and loss of habitat. Earthmoving activities can also eliminate soil seedbanks, potentially reducing the size of local rare plant populations and adversely affecting the viability of the population by reducing reproduction below sustainable levels. Permanent indirect impacts to special-status plant species may arise from population fragmentation and introduction of non-native weeds. Population fragmentation can affect pollinator activity and, hence, reproduction and gene flow. Introduction and establishment of invasive weeds within or adjacent to special-status plant populations can reduce species growth and recruitment. In addition, indirect impacts to special-status plant species located in offsite areas can arise from fugitive dust and increased soil erosion at construction work areas and the migration of sediment into adjacent habitat, or accidental off-site habitat use by construction workers. Fugitive dust and sediment can interfere with metabolic processes such as photosynthesis and respiration.

Overview of Potential Construction Effects on Wildlife

Special-status wildlife can be trampled by construction vehicles and heavy construction equipment or get trapped in trenches or other open excavations. Vegetation and tree removal can result in direct impacts to nesting birds through loss of nests and eggs or nestling mortality, and can reduce or fragment foraging and dispersal habitat. Even at sites that have little or no wildlife habitat, impacts can occur if wildlife from adjacent habitat areas enter or pass through the construction work area. Construction can result in the temporary or permanent loss of habitat for wildlife species. Construction activities can also result in indirect impacts on special-status wildlife related to disturbance or harassment of individuals. For example, construction noise, vibration, and nighttime lighting can cause special-status birds, bats, and other animals to abandon nests, roosts, or other breeding areas. Artificial lighting during nighttime construction can also increase predation and disrupt reproductive behaviors. Eroded sediment and hazardous construction chemicals from the construction work area can be transported offsite via site runoff and adversely affect receiving downstream water bodies and degrade habitat for both terrestrial and aquatic animals.

Subsurface Slant Wells

A total of up to ten subsurface slant wells (eight active and two standby) and a 4-foot-long by 2-foot-wide electrical control panel would be constructed in the CEMEX active mining area at the western terminus of the CEMEX access road. In addition, a 4-foot-wide, 12-foot-long, and 6-foot-tall aboveground electrical control building would be constructed near the eastern entrance to the CEMEX property, approximately 750 feet west of Highway 1, on the south side of the CEMEX access road and also within the active mining area. The subsurface slant wells would be installed in three clusters. The northernmost well cluster would be constructed near the western terminus of the CEMEX access road, while the remaining two well clusters would be installed on the eastern side of the vegetated sand dunes. Slant well construction, including access, staging, materials storage, and stockpiling, would occur within an approximately 10-acre area within the active mining area. Existing groundcover in the 10-acre subsurface slant well construction area includes relatively undisturbed central dune scrub, formerly disturbed sand dunes that are revegetating with native and non-native dune scrub vegetation, and unvegetated disturbed sandy soil in actively mined areas. The

areas of relatively intact scrub occurs along the western active mining area boundary (just east of the active beach area) and at the west end of the access road in the vicinity of the CEMEX settling ponds. The current and recently disturbed areas occur east of the vegetated sand dunes and south of the CEMEX access road. Construction of the slant wells could occur during anytime of the year but would occur in 6-month increments over a total of 18 months.

Monterey spineflower and sand-loving wallflower have been observed at the site (ESA, 2013; 2014). Construction of the subsurface slant wells, electrical control panel, and electrical control building in the CEMEX active mining area have the potential to disturb documented populations of Monterey spineflower and sand-loving wallflower. A variety of other special-status plant species, as listed in **Table 4.6-4**, are either known to occur or have a potential to occur in central dune scrub at the site, including robust spineflower, Seaside bird's-beak, Menzies' wallflower, sand gilia, Hooker's manzanita, Toro manzanita, sandmat manzanita, Monterey Coast paintbrush, Monterey ceanothus, branching beach aster, south coast branching phacelia, Michael's rein orchid, Eastwood's goldenbush, sand-loving wallflower, northern curly-leaved monardella, and Kellogg's horkelia. If these species are present within or immediately adjacent to the construction work area for the subsurface slant wells, electrical control panel, and/or electrical control building, they could be impacted by construction as described above under "*Overview of Potential Construction Effects on Plants*." This would be a significant impact.

Coast buckwheat, host plant for Smith's blue butterfly, occurs within the proposed subsurface slant wells site (ESA, 2013; 2014). Removal or impacts to these plants and associated soil during construction could impact individual adult butterflies, their eggs, or larvae, if present. Impacts to any life form of the Smith's blue butterfly would result in a significant impact.

As described in Section 4.6.1.8, above, western snowy plover are known to nest and breed within the beach and foredunes located west of, and within the western portion of, the CEMEX active mining area. The beach and foredunes provide important breeding/nesting and wintering habitat for the western snowy plover. Surveys conducted during the 2012 nesting season identified multiple nests along the stretch of beach in the vicinity of the CEMEX active mining area (Page et al., 2012). Some nests have been found in the vicinity of the CEMEX settling ponds and adjacent to the CEMEX access road (Zander, 2013) and at the location of the northernmost well cluster. Western snowy plover may also use the entire subsurface slant well construction area for wintering.

Construction of the slant wells in the CEMEX active mining area could occur year-round. The construction footprint for the northernmost well cluster is located within potential nesting habitat and construction of the northernmost well cluster during the breeding season would result in the temporary loss of potential nesting habitat. Construction noise and vibration, earthmoving activities, vegetation clearance, and night lighting associated with installation of the second slant well at the northernmost well cluster during the snowy plover nesting season (typically defined as March 1 through September 30) could also impact plovers by causing temporary flight of breeding birds, nest abandonment, or nest failure. The impact to plover habitat and behavior from construction of the second slant well at the northernmost well cluster would be significant. The

remaining subsurface slant wells would be constructed in two well clusters on the backdunes, away from the beach and foredunes where plovers typically nest, and would not result in the temporary loss of plover nesting habitat. However, if construction workers and equipment at the two southern slant well clusters are visible to nesting plovers, significant adverse effects on breeding behavior could occur. Construction-related effects on plover behavior from construction activities at the two southern slant well clusters is considered a significant impact. No permanent structures would be constructed within potential plover nesting habitat.

Construction during the snowy plover wintering season (October 1 through February 28) could directly or indirectly impact individual birds if present within or adjacent to the construction area. This would be a significant impact. With respect to wintering habitat, construction activities would be temporary, occurring in 6-month increments for a total of 18 months, with most of the slant well construction occurring in the backdunes, away from the beach and foredunes where plovers are typically found. Additionally, there is abundant wintering habitat along the Monterey Bay shoreline north and south of the subsurface slant wells site. Any displaced birds would only be temporarily displaced to these areas. Therefore, installation of the subsurface slant wells would have less than significant impacts on wintering habitat.

Black legless lizard, silvery legless lizards, and coast horned lizard have potential to occur within the subsurface slant well site, and if present during construction, they could be directly or indirectly impacted as described above under "*Overview of Potential Construction Effects on Wildlife*." This would be a significant impact.

Other special-status birds protected by the federal MBTA and Section 3503 of the California Fish and Game Code, such as killdeer, may nest within or immediately adjacent to the construction work areas for the slant wells, electrical control panel, and electrical control building. If nesting birds are present, construction activities could impact these species as described above under "*Overview of Potential Construction Effects on Wildlife*." This would be a significant impact.

Impacts to central dune scrub, which is habitat for Smith's blue butterfly, western snowy plover, black legless lizard, silvery legless lizard, coast horned lizard, and the special-status plant species listed above, at this facility, is addressed below under Impact 4.6-2.

A full list of special-status species that could be significantly impacted by construction of the subsurface slant wells is provided in **Table 4.6-4**. Overall, the impact to special-status species during slant well construction would be significant. However, with implementation of **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1d (Protective Measures for Western Snowy Plover)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1f (Avoidance and Minimization Measures for Smith's Blue Butterfly)**, **4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1n (Habitat Mitigation and Monitoring Plan)**, **4.12-1b (General Noise Controls for Construction Equipment)**, and **4.14-2 (Site-Specific Construction Lighting**

Measures), the impact would be reduced to a less-than-significant level. These measures would address impacts to special-status species by designating a lead biologist to oversee implementation of special-status species protective measures; requiring worker training regarding special-status species potentially present; requiring general measures such as exclusion fencing to avoid and minimize impacts to special-status species; requiring specific measures to avoid and minimize impacts to the western snowy plover such as installing a visual construction barrier for work conducted adjacent to breeding habitat during the breeding season; requiring specific measures to avoid and minimize impacts to special-status plants such as avoiding individual plants to the extent feasible; requiring specific measures to avoid and minimize impacts to Smith's blue butterfly such as avoiding host plants to the extent feasible; requiring specific measures to avoid and minimize impacts to black legless lizard, silvery legless lizard, and coast horned lizard such as relocating individuals to areas outside of the construction area; requiring specific measures to avoid and minimize impacts to nesting birds such as limiting construction to the non-nesting season when feasible; developing and implementing a mitigation and monitoring plan for temporarily and permanently impacted habitats; implementing noise controls for construction equipment; and requiring a construction lighting plan detailing measures to minimize light spillover outside of the construction area.

MPWSP Desalination Plant

The proposed MPWSP Desalination Plant would be constructed on the upper terrace (approximately 25 acres) of a 46-acre vacant parcel on Charles Benson Road. The MPWSP Desalination Plant would include a pretreatment system, reverse osmosis system, a post-treatment system, administration building, and other facilities. Nighttime construction is anticipated at the MPWSP Desalination Plant site throughout the 25-month construction period. The 25 acres that would be disturbed during construction is entirely ruderal. Google Earth aerial photography (Google Inc., 2014) indicates the site has been disked and/or mowed regularly since 2009. Adjacent land uses include the MRWPCA Regional Wastewater Treatment Plant, crop production, and grazing.

Table 4.6-4 identifies the special-status species that could be significantly impacted by construction at the site. As described in Section 4.6.1.8, the MPWSP Desalination Plant site could support Congdon's tarplant, a CRPR 1B.1 plant that can occur in disturbed ruderal habitats. If Congdon's tarplant is present within the project construction work area, grading, excavation, and other earthwork activities associated with construction of the MPWSP Desalination Plant could significantly impact Congdon's tarplant as described above under "*Overview of Potential Construction Effects on Plants*". Additionally, California red-legged frog or California tiger salamander could disperse through the site. If individual California red-legged frog or California tiger salamander are present, construction of the MPWSP Desalination Plant could impact these individuals as described above under "*Overview of Potential Construction Effects on Wildlife*," a significant impact. However, since the MPWSP Desalination Plant site has been regularly mowed or disked for the past several years, it does not provide high quality upland refugial habitat for these species. Additionally, similar quality dispersal habitat is located adjacent to the MPWSP Desalination Plant site and construction of the MPWSP Desalination Plant would not result in a

loss of high quality upland habitat. The impact to California red-legged frog and California tiger salamander habitat would be less than significant.

Mature ornamental eucalyptus and Monterey cypress trees planted along Charles Benson Road adjacent to the site may provide nesting and roosting habitat for raptors such as red-tailed hawk, red-shouldered hawk, and American kestrel and special-status bat species. The entire site provides potentially suitable nesting habitat for common passerines protected under the MBTA. Currently the site also provides potential foraging habitat for raptors and other birds. **Table 4.6-1** provides a complete list of special-status species with the potential to occur at the MPWSP Desalination Plant site. Nighttime construction lighting and both daytime and nighttime construction noise have the potential to disturb raptors and special-status passerines actively nesting in the trees along Charles Benson Road described above under "*Overview of Potential Construction Effects on Wildlife*," a significant impact. If nesting birds or roosting special-status bats are present within these trees, they could be harmed if the trees are removed, also a significant impact.

Steelhead are known to occur in the Salinas River (NMFS, 2007), which is located approximately 850 feet north of the MPWSP Desalination Plant site. A drainage ditch, which flows into the Salinas River, is located approximately 250 feet north (and downslope) of the MPWSP Desalination Plant site. Construction of the MPWSP Desalination Plant would not directly impact steelhead. However, soil-disturbing activities at the site could result in soil erosion and the migration of eroded soil and sediment downgradient towards the Salinas River. As discussed under Impact 4.3-1 in Section 4.3, Surface Water Hydrology and Water Quality, project construction activities that would disturb more than one acre would be subject to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit requirements. Per the requirements, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared by a Qualified SWPPP Developer and a Qualified SWPPP Practitioner would oversee its implementation. The SWPPP, which would include site-specific erosion and stormwater control measures to be implemented during construction of the MPWSP Desalination Plant, would reduce or eliminate the offsite migration of pollutants and sediment. Mandatory compliance with the NPDES Construction General Permit would avoid substantial adverse effects on the water quality of critical habitat along the Salinas River. Thus, the impact to steelhead within the Salinas River would be less than significant and no mitigation is necessary.

The construction-related effects on special-status species described above (Congdon's tarplant, California red-legged frog, and special-status nesting birds) would result in a significant impact. Implementation of following mitigation measures would ensure that impacts to sensitive species at this site are reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants), 4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1n (Habitat Mitigation and Monitoring Plan)**, **4.6-1o (Avoidance and Minimization Measures for California Red-legged**

Frog and California Tiger Salamander), and **4.14-2 (Site-Specific Construction Lighting Measures)**. These measures would address impacts to special-status species by requiring general and specific measures to avoid and minimize impacts to individuals and their habitat.

Pipelines North of Reservation Road

Most pipeline segments would be installed using conventional open-trench technology; however, trenchless methods would be used when open-cut trenching is not feasible or desirable. The construction sequence would typically include clearing and grading the ground surface along the pipeline alignments; excavating the trench; preparing and installing pipeline sections; installing vaults, manhole risers, manifolds, and other pipeline components; backfilling the trench with non-expansive fills; restoring preconstruction contours; and revegetating or paving the pipeline alignments, as appropriate.

Source Water Pipeline. The Source Water Pipeline alignment is described in Section 3.4.1.2 of Chapter 3, Project Description. The Source Water Pipeline is an approximately 2.2-mile-long 42-inch-diameter pipeline that would extend from the subsurface slant wells at the CEMEX active mining area to the MPWSP Desalination Plant on Charles Benson Road. Installation of the Source Water Pipeline is anticipated to take 6 months. Although not planned, nighttime installation of the Source Water Pipeline could be required to expedite the construction schedule.

Central dune scrub exists along the proposed Source Water Pipeline alignment along the CEMEX access road and Lapis Road. Agricultural fields and grazing land occur along the north and south sides of Charles Benson Road.

Monterey spineflower occurs in high densities along the CEMEX access road and in the surrounding sand dunes in the CEMEX active mining area (Zander Associates, 2013; 2014) and has also been observed along Lapis Road within and adjacent to the pipeline alignment (ESA, 2010). Additionally, branching beach aster was observed along Lapis Road and the CEMEX access road within the Source Water Pipeline alignment during protocol level plant surveys conducted for the proposed project in 2014 (URS, 2014b). As indicated in **Table 4.6-1**, a number of other special-status plants may also occur in central dune scrub along this pipeline alignment. Construction of the Source Water Pipeline has potential to disturb Monterey spineflower, which has been observed along the Source Water Pipeline alignment. If other special-status plants, such as Menzies' wallflower, sand gilia, or other special-status plants listed in **Table 4.6-4**, are present in central dune scrub within or immediately adjacent to the project area, they could be directly or indirectly impacted by construction as described above under "*Overview of Potential Construction Effects on Plants,*" a significant impact.

Coast buckwheat (host plant for Smith's blue butterfly) occurs in high densities along the CEMEX access road and in the surrounding sand dunes in the CEMEX active mining area (Zander Associates, 2013; 2014). If any life form of the butterfly is present on or around these host plants, removal of the plant would be considered a significant impact to Smith's blue butterfly.

Western snowy plover are known to use the western portion of the Source Water Pipeline alignment year-round. Construction noise or activity during the wintering season could directly or indirectly impact individual birds, a significant impact. There is abundant wintering habitat along the Monterey Bay shoreline north and south of the Source Water Pipeline and birds would only be temporarily displaced to these areas. Therefore, installation of the pipeline would have less than significant impacts to wintering habitat. Construction noise or activity associated with installation of the Source Water Pipeline during the western snowy plover breeding season could impact plovers by causing temporary flight of breeding birds and nest abandonment or failure, which would be significant. Construction work within the western end of the proposed Source Water Pipeline would result in the temporary loss of potential nesting habitat, a significant impact. The remainder of the Source Water Pipeline would be constructed away from the beach and foredunes where plovers typically nest and would not result in the temporary loss of plover breeding habitat.

Additionally, as described in Section 4.6.1.8, above, and as presented in **Table 4.6-4**, numerous other special-status wildlife species, including California red-legged frog, California tiger salamander, western burrowing owls, black legless lizard, silver legless lizard, coast horned lizard, and American badger may inhabit central dune scrub or grazing lands along this pipeline alignment. Special-status bats may roost within crevices underneath the Highway 1 overpass at the CEMEX access road and in trees within the alignment. Raptors such as red-tailed hawk, white-tailed kite, and loggerhead shrike, among others, could potentially nest in trees and/or forage along both of these pipeline alignments. If California red-legged frog, California tiger salamander, black legless lizard, silvery legless lizard, coast horned lizard, burrowing owl, or American badger are present in suitable habitat in or around the pipeline alignment, special-status bats are roosting in or around the pipeline alignment, or special-status nesting birds are present in or around the pipeline alignment they could be directly or indirectly impacted during construction as described above under "*Overview of Potential Construction Effects on Wildlife*."

Impacts to central dune scrub, which is habitat for the special-status plant species listed above, Smith's blue butterfly, western snowy plover, California red-legged frog, California tiger salamander, black legless lizard, silvery legless lizards, coast horned lizard, western burrowing owl, and American badger at this facility, is addressed in Impact 4.6-2. Impacts on special-status species during construction of the Source Water Pipeline as described above and as listed in **Table 4.6-4** would be significant. However, implementation of the following mitigation measures would ensure that impacts to special-status species at this site are reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1d (Protective Measures for Western Snowy Plover)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1f (Avoidance and Minimization Measures for Smith's Blue Butterfly), 4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard)**, **4.6-1h (Avoidance and Minimization Measures for Western Burrowing Owl)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1j (Avoidance and Minimization Measures**

for American Badger), **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1n (Habitat Mitigation and Monitoring Plan)**, **4.6-1o (Avoidance and Minimization Measures for California Red-legged Frog and California tiger Tiger Salamander), 4.12-1b (General Noise Controls for Construction Equipment)**, and **4.14-2 (Site-Specific Construction Lighting Measures)**. These measures would require designation of a Lead Biologist to oversee compliance with protective measures for biological resources, construction worker training, implementation of general avoidance and minimization measures, and implementation of species-specific avoidance and minimization measures.

Desalinated Water Pipeline. The Desalinated Water Pipeline alignment is described in Section 3.4.3.3 of Chapter 3, Project Description, respectively. The 3.3-mile-long, 36-inch-diameter Desalinated Water Pipeline would extend from the MPWSP Desalination Plant to its connection with the Transmission Main at the intersection of Del Monte Boulevard and Reservation Road. Installation of the Desalinated Water Pipeline is anticipated to take 6 months. Although not planned, nighttime installation of the Desalinated Water Pipeline could be required to expedite the construction schedule.

Within the segment of the Desalinated Water Pipeline located along Del Monte Boulevard, vegetation communities north of Beach Road include moderately disturbed central dune scrub and developed areas with planted eucalyptus and Monterey cypress; vegetation communities south of Beach Road include non-native annual grassland and ruderal areas. Additionally, riparian woodland and scrub exists along the Desalinated Water Pipeline alignment at Locke-Paddon Park, near the intersection of Del Monte Boulevard and Reservation Road. Agricultural fields and grazing land occur within the alignment along the north and south sides of Charles Benson Road, respectively.

Monterey spineflower and Kellogg's horkelia were observed in central dune scrub along Del Monte Boulevard during surveys conducted for the proposed project in 2012 and 2013 (ESA, 2013). Branching beach aster was observed along Del Monte Road within the pipeline alignment during protocol level plant surveys conducted for the proposed project in 2014 (URS, 2014b). As indicated in **Table 4.6-1**, a number of other special-status plants may also occur in central dune scrub along these pipeline alignments. Construction of the Desalinated Water Pipeline has potential to disturb Monterey spineflower and Kellogg's horkelia, which have been observed along the pipeline alignment, a significant impact. If other special-status plants, such as Menzies' wallflower, sand gilia, or other special-status plants listed in **Table 4.6-4**, are present in central dune scrub within or immediately adjacent to the project area, they could be directly or indirectly impacted by construction as described above under "*Overview of Potential Construction Effects on Plants*," a significant impact.

As presented in **Table 4.6-4**, numerous special-status wildlife species, including California red-legged frog, California tiger salamander, western burrowing owls, black legless lizard, silver legless lizard, coast horned lizard, and American badger may inhabit central dune scrub or grazing lands along the pipeline alignment. Riparian woodland and scrub located adjacent to the pond at Locke-Paddon Park and along the alignment has the potential to support western pond

turtle and tricolored blackbird. Raptors such as red-tailed hawk, white-tailed kite, and loggerhead shrike, among others, could potentially nest in trees and/or forage along both of these pipeline alignments. Special-status bats could roost in trees within the alignment. If California red-legged frog, California tiger salamander, black legless lizard, silvery legless lizard, coast horned lizard, burrowing owl, American badger, tri-colored blackbird, western pond turtle, or special-status nesting birds are present in or around the alignment, they could be directly or indirectly impacted during construction as described above under "*Overview of Potential Construction Effects on Wildlife*."

Impacts to central dune scrub, which is habitat for the special-status plant species listed above, California red-legged frog, California tiger salamander, black legless lizard, silvery legless lizards, coast horned lizard, western burrowing owl, and American badger at this facility, are addressed in Impact 4.6-2. Impacts to riparian woodland and scrub, which is habitat for tri-colored blackbird and western pond turtle at this facility, are also addressed in Impact 4.6-2.

Impacts on special-status species during construction of the Desalinated Water Pipeline would be significant. However, implementation of the following mitigation measures would ensure that impacts to special-status species at this site are reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard)**, **4.6-1h (Avoidance and Minimization Measures for Western Burrowing Owl)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1j (Avoidance and Minimization Measures for American Badger)**, **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1n (Habitat Mitigation and Monitoring Plan)**, **4.6-1o (Avoidance and Minimization Measures for California Red-legged Frog and California tiger Tiger Salamander)**, and **4.14-2 (Site-Specific Construction Lighting Measures)**. These measures would require designation of a Lead Biologist to oversee compliance with protective measures for biological resources, construction worker training, implementation of general avoidance and minimization measures, and implementation of species-specific avoidance and minimization measures.

Salinas Valley Return Pipeline and Brine Discharge Pipeline. The Salinas Valley Return Pipeline and Brine Discharge Pipeline are described in Sections 3.4.3.10 and 3.4.2.5 of Chapter 3, Project Description, respectively. Construction of the 1.2-mile-long, 12-inch-diameter Salinas Valley Return Pipeline and 1-mile-long, 24-inch diameter Brine Discharge Pipeline would be completed in approximately 3 months, respectively. Nighttime construction may be required to expedite construction.

The Salinas Valley Return Pipeline and Brine Discharge Pipeline would be installed along the easternmost segment of Charles Benson Road and along developed access roads and patches of non-native grassland within the MRWPCA Regional Wastewater Treatment Plant. Within this

segment of Charles Benson Road, agricultural/grazing land occurs on the south side of the road and developed/landscaped areas occur on the north side of the road.

Table 4.6-1 presents the potential for special-status plant and wildlife species to occur along the Transmission Main alignment, and **Table 4.6-4** identifies the special-status plant and wildlife species that could be significantly impacted by project-related construction activities. As indicated in **Table 4.6-1**, special-status plants are not expected to occur along these pipeline alignments; therefore, no impact to special-status plants would result.

Planted Monterey cypress trees on the south side of Charles Benson Road and on the west side of the MRWPCA's access road provide roosting, foraging, and/or nesting opportunities for a variety of raptors and other birds and roosting habitat for special-status bats. Although these trees are not expected to be removed during pipeline installation activities, due to the proximity of construction, if raptors or special-status nesting passerines or roosting special-status bats are present during construction in or around the project area, construction activities could result in impacts to these species as described under "*Overview of Potential Construction Effects on Wildlife*," which would result in a significant impact. Non-native grassland within the MRWPCA Regional Wastewater Treatment Plant site may provide nesting habitat for common passerines protected by the MBTA. If nesting birds are present within the grassland, they could be directly or indirectly impacted by construction activities, which would be a significant impact. Additionally, California red-legged frog and California tiger salamander have potential to occur disperse in upland areas. If present, they could be impacted by construction activities, which would be a significant impact.

Implementation of the following mitigation measures would ensure that impacts to special-status species at this site are reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1o (Avoidance and Minimization Measures for California Red-legged Frog and California tiger Tiger Salamander)**, and **4.14-2 (Site-Specific Construction Lighting Measures)**. These measures would require designation of a Lead Biologist to oversee compliance with protective measures for biological resources, construction worker training, implementation of general avoidance and minimization measures, and implementation of species-specific avoidance and minimization measures, including measures for nesting birds and special-status bats.

Pipelines and Other Conveyance Facilities South of Reservation Road

Transmission Main. The proposed Transmission Main is described in Section 3.4.3.4 of Chapter 3, Project Description. This 6-mile-long, 36-inch-diameter pipeline would extend from the Desalinated Water Pipeline at the intersection of Del Monte Boulevard and Reservation Road south to the intersection of Del Monte Boulevard and Auto Center Parkway where it would connect to the proposed Transfer Pipeline and Monterey Pipeline. Similar to the other pipelines, construction activities would occur during the daytime hours, except at a few locations where nighttime construction would be required to meet the project schedule.

As described in Section 4.6.1.10, above, habitat along the Transmission Main alignment is variable and includes non-native grassland with ornamental trees, a developed railroad bed with associated ruderal vegetation, and central dune scrub.

Table 4.6-1 presents the potential for special-status plant and wildlife species to occur along the Transmission Main alignment, and **Table 4.6-4** identifies the special-status plant and wildlife species that could be significantly impacted by project-related construction activities. As indicated in **Table 4.6-1**, Sandmat manzanita, Monterey spineflower, Menzies' wallflower, Kellogg's horkelia, Monterey Coast paintbrush, branching beach aster, south coast branching phacelia, Michael's rein orchid, and Monterey ceanothus have been observed along the alignment (ESA, 2013; USACE, 1997; Fort Ord Reuse Authority, 2012; CDFW, 2015; Denise Duffy & Associates, 2013; and URS, 2014b) and construction of the Transmission Main could result in direct and indirect impacts to these species as described above under "*Overview of Potential Construction Effects on Plants*," a significant impact. Additionally, a number of other special-status plant species associated within coastal scrub could also occur here and, if present, could be directly or indirectly impacted by construction, which is a significant impact.

Coast buckwheat occurs along the alignment (ESA, 2013) and could support Smith's blue butterfly. If any life form of Smith's blue butterfly is present, removal or destruction of coast buckwheat and associated soil could result in injury or loss of Smith's blue butterfly. These impacts to Smith's blue butterfly would be significant.

Black legless lizard, silvery legless lizard, western burrowing owl, and American badger could occur in non-native grassland and coastal scrub along the alignment. Additionally, raptors and other birds protected by the MBTA could nest where suitable habitat occurs along the alignment. Special-status bats have some potential to roost within crevices underneath the Highway 1 overpass and in trees within the alignment. If present, these species could be directly or indirectly impacted by construction as described above under "*Overview of Potential Construction Effects on Wildlife*." The impact to these special-status wildlife species is considered significant.

Impacts to central dune scrub, which is habitat for the special-status plant species listed above, Smith's blue butterfly, black legless lizard, silvery legless lizards, coast horned lizard, western burrowing owl, and American badger at this facility, is addressed in Impact 4.6-2.

The overall construction-related impact on special-status plant and wildlife species during construction of the Transmission Main would be significant. However, implementation of the following mitigation measures would ensure that these impacts are reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1f (Avoidance and Minimization Measures for Smiths's Blue Butterfly)**, **4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard)**, **4.6-1h (Avoidance and Minimization Measures for Western Burrowing Owl)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1j (Avoidance and**

Minimization Measures for American Badger), **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1n (Habitat Mitigation and Monitoring Plan)**, and **4.14-2 (Site-Specific Construction Lighting Measures)**. These measures would require designation of a Lead Biologist to oversee compliance with protective measures for biological resources, construction worker training, implementation of general avoidance and minimization measures, and implementation of species-specific avoidance and minimization measures.

Transfer Pipeline. The Transfer Pipeline is described in Section 3.4.3.5 of Chapter 3, Project Description. The proposed Transfer Pipeline would be 36-inches in diameter and 2.4 miles long and extend from the Transmission Main east to the Terminal Reservoir site. Installation of this pipeline would take approximately 6 months and the construction area would return to original topography following pipeline installation. Construction activities would occur during the daytime hours. The segment of the Transfer Pipeline located west of General Jim Moore Boulevard would be installed within developed residential areas. All excavation activities associated with this segment would occur within the paved roadway (i.e., curb to curb). This area provides potential nesting habitat for common passerine species and raptors and roosting habitat for special-status bats, but would not be expected to support other special-status species.

The segment of the Transfer Pipeline located east of General Jim Moore Boulevard and extending to the Terminal Reservoir/ASR Pump Station site passes through maritime chaparral. The vegetation community found here is similar to, and immediately adjacent to, those described for the Terminal Reservoir/ASR Pump Station site, below. See **Table 4.6-1** for a complete list of special-status species with a moderate to high potential to occur along the Transfer Pipeline alignment; see **Table 4.6-4** for a list of all special-status species that could be significantly impacted during construction of the Transfer Pipeline.

Many special-status plants species have either been observed along the Transfer Pipeline alignment or in close proximity to the alignment, including Monterey spineflower, sand gilia, seaside bird's beak, sand-loving wallflower, sandmat manzanita, Monterey ceanothus, Eastwood's goldenbush, and south coast branching phacelia. Other special-status plant species, such as robust spineflower, Toro manzanita, Monterey Coast paintbrush, Carmel Valley bush-mallow, Michael's rein orchid, native stands of Monterey pine, and others listed in **Table 4.6-4** also have potential to occur here. If present in or around the project area, construction of the Transfer Pipeline has potential to disturb these special-status plant species as described above under "*Overview of Potential Construction Effects on Plants*," a significant impact.

California red-legged frog, California tiger salamander, black legless lizard and coast horned lizard have potential to occur within maritime chaparral. Monterey dusky-footed woodrat, Monterey shrew, and American badger may also occur onsite in chaparral. Additionally, special-status birds, such as western burrowing owl, raptors or nesting passerines, or roosting special-status bats may be present within maritime chaparral. If these wildlife species are present within or adjacent to the entire pipeline alignment, these species, and their habitat, could be directly or indirectly impacted as described above under "Overview of Potential Construction Effects on Wildlife."

Impacts to maritime chaparral, which is habitat for the special-status plant species listed above, California red-legged frog, California tiger salamander, black legless lizard, silvery legless lizards, coast horned lizard, western burrowing owl, dusky-footed woodrat, Monterey shrew, and American badger at this facility, is addressed in Impact 4.6-2.

Impacts on special-status plant and animal species during construction of the Transfer Pipeline, as described above, are considered significant. Most of these impacts are concentrated on the segment located east of General Jim Moore Boulevard. Implementation of the following mitigation measures would ensure that impacts to special-status species at this site are reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard)**, **4.6-1h (Avoidance and Minimization Measures for Western Burrowing Owl)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1j (Avoidance and Minimization Measures for American Badger)**, **4.6-1k (Avoidance and Minimization Measures for Monterey Dusky-Footed Woodrat)**, **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1m (Avoidance and Minimization Measures for Native Stands of Monterey Pine)**, **4.6-1n (Habitat Mitigation and Monitoring Plan)**, **4.6-1o (Avoidance and Minimization Measures for California Red-legged Frog and California tiger Tiger Salamander)**, and **4.14-2 (Site-Specific Construction Lighting Measures)**. These measures would require designation of a Lead Biologist to oversee compliance with protective measures for biological resources, construction worker training, implementation of general avoidance and minimization measures, and implementation of species-specific avoidance and minimization measures.

Monterey Pipeline. The proposed 5.4-mile-long, 36-inch-diameter pipeline would extend from its connection to the Transmission Main and Transfer Pipeline at the intersection of Del Monte Boulevard/Auto Center Parkway in Seaside to its terminus at the Eardley Pump Station in Pacific Grove. Pipeline installation would take approximately 12 months and is anticipated to occur during the daytime hours unless nighttime work is required to meet the project schedule. The segment of the Monterey Pipeline alignment located between the Transmission Main/Transfer Pipeline and the intersection of Del Monte Boulevard and Figueroa Street traverses various altered vegetation communities, including non-native grassland, patches of eucalyptus, patches of coast live oak woodland, central dune scrub, and developed areas. This section of pipeline also traverses riparian woodland and scrub associated with Laguna del Rey. West of Figueroa Street, the remainder of the pipeline would be aligned through urbanized areas in the cities of Monterey and Pacific Grove.

Construction activities associated with the Monterey Pipeline have the potential to result in substantial direct and/or indirect adverse effects on special-status plant species and their habitat. **Table 4.6-1** presents the occurrence potential for special-status plant species along the Monterey Pipeline alignment; **Table 4.6-4** indicates those species that could be significantly impacted by the

pipeline installation activities. These include Hooker's manzanita, sand-loving wallflower, and Monterey Coast paintbrush, all of which have been observed along the proposed Monterey Pipeline alignment (Denise Duffy & Associates, 2013). Native stands of Monterey pine exist along the segment of pipeline located within the Presidio of Monterey (Denise Duffy & Associates, 2010b). A number of special-status plants have a moderate to high potential to occur on sandy soils in central dune scrub and in the understory of coast live oak woodland. The potential adverse effects that project construction activities could have on special-status plants are discussed above under "*Overview of Potential Construction Effects on Plants"*. The impact to special-status plant species would be significant.

Coast buckwheat, a host plant for Smith's blue butterfly, was observed within non-native grassland at the northern end of the Monterey Pipeline alignment (ESA, 2013). If Smith's blue butterfly eggs, larvae, or adults are present on the coast buckwheat plants within the construction work area, Smith's blue butterflies, and their habitat, could be directly or indirectly impacted as described above under "*Overview of Potential Construction Effects on Wildlife*". This would be a significant impact.

Riparian woodland and scrub associated with Laguna del Rey could provide suitable habitat for western pond turtle and tricolored blackbird. Black legless lizard, silvery legless lizard, and coast horned lizard have a low to moderate potential to occur in coast live oak woodland and central dune scrub. Raptors and other special-status birds may nest and special-status bats may roost in trees along the pipeline alignment. Pallid bat has a low to moderate potential to roost in crevices under the Highway 1 overpass. If black legless lizard, silvery legless lizard, or coast horned lizard are present in central dune scrub or oak woodland along the pipeline alignment; western pond turtles are present or tricolored blackbirds are nesting along the Laguna del Rey riparian corridor; raptors or other special-status nesting passerines are present within or adjacent to the construction disturbance area; or special-status bats are roosting within or adjacent to the pipeline alignment, construction activities associated with the Monterey Pipeline could result in substantial direct and/or indirect adverse effects on these special-status wildlife species. (See the discussion above under "*Overview of Potential Construction Effects on Wildlife*" for more information on direct and indirect impacts to special-status wildlife.) This impact would be significant.

Impacts to central dune scrub and coast live oak woodland along the Monterey Pipeline alignment, which are habitats for one or more of the special-status plant and wildlife species listed above (including special-status plants, Smith's blue butterfly, black legless lizard, silvery legless lizards, and coast horned lizard) are addressed in Impact 4.6-2. Impacts to riparian woodland and scrub along the Monterey Pipeline alignment, which provides habitat for western pond turtle, is also addressed in Impact 4.6-2.

Installation of the Monterey Pipeline would result in significant impacts to special-status plant and wildlife species as described above. However, with implementation of the following mitigation measures, the impacts to special-status species would be reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and**

Minimization Measures for Special-status Plants), **4.6-1f (Avoidance and Minimization Measures for Smiths's Blue Butterfly)**, **4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1m (Avoidance and Minimization Measures for Native Stands of Monterey Pine)**, **4.6-1n (Habitat Mitigation and Monitoring Plan),** and **4.14-2 (Site-Specific Construction Lighting Plan)**. These measures would require designation of a Lead Biologist to oversee compliance with protective measures for biological resources, construction worker training, implementation of general avoidance and minimization measures, and implementation of species-specific avoidance and minimization measures.

ASR-5 and ASR-6 Wells, ASR Settling Basin, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline

The proposed improvements to the Seaside Groundwater Basin ASR System are described in Chapter 3, Project Description, Section 3.4.4. The improvements, all of which would be constructed along the east side of General Jim Moore Boulevard in the former Fort Ord military base, include the ASR-5 and ASR-6 Wells, two ASR Conveyance Pipelines, the ASR Pump-to-Waste Pipeline, and the ASR Settling Basin. The ASR Pump Station, another component of the ASR system, would be constructed at the Terminal Reservoir site; impacts from the ASR Pump Station are addressed in the Terminal Reservoir/ASR Pump Station discussion below. Each ASR injection/extraction well would be housed in a permanent 900-square foot concrete pump house. Chain-link fencing would encompass an approximately 0.4-acre and 0.5-acre area around the ASR-5 and ASR-6 Wells, respectively. Water produced during development of the wells would be conveyed to a 1.4-acre natural depression located east of the intersection of San Pablo Avenue and General Jim Moore Boulevard and percolated into the ground. The proposed ASR Pump-to-Waste System would include a permanent 4,800-square-foot ASR Settling Basin located between the ASR-5 and ASR-6 Well sites, and an ASR Pump-to-Waste Pipeline that would extend between the new injection/extraction wells and the existing pump-to-waste system for the Phase I and II ASR facilities located at the intersection of General Jim Moore Boulevard and Coe Avenue. Construction of the proposed improvements to the ASR system (including the ASR Pump Station and Terminal Reservoir, which are discussed further below) would occur over approximately 18 months. Construction activities would be conducted during daytime hours, except for 8 weeks of 24-hour construction at the Fitch Park military housing area associated with drilling, development, and completion of the ASR-5 and ASR-6 Wells.

The parallel 0.9-mile ASR Conveyance Pipelines would extend along the east side of General Jim Moore Boulevard between CalAm's existing distribution system at the Coe Avenue/General Jim Moore Boulevard intersection and the proposed ASR-5 and ASR-6 Wells at the Fitch Park military housing area. The ASR Conveyance Pipelines would be constructed over approximately 3 months. The 0.9-mile-long ASR Pump-to-Waste Pipeline would be constructed along this same alignment and would also be constructed in approximately 3 months. Construction of these pipelines would occur during daytime hours.

Soils in and around this portion of the former Fort Ord military base are sandy. Non-native grassland, coast live oak woodland, and central maritime chaparral are the primary vegetation communities present within the ASR facilities construction area. Non-native grassland and coast live oak woodland occur north of Coe Avenue. A small patch of coastal sage scrub exists at the southern end of the ASR Conveyance Pipelines and ASR Pump-to-Waste Pipeline alignment. Central maritime chaparral exists south of Coe Avenue and encompasses the 1.4-acre depression that would be used to percolate the water produced during development of the ASR-5 and ASR-6 Wells. As indicated in **Table 4.6-1**, special-status plant species that are known or have a moderate to high potential to occur in the non-native grassland, coastal sage scrub, central maritime chaparral, and oak woodland areas include Kellogg's horkelia, Monterey spineflower, sand gilia, Yadon's rein orchid, Hooker's manzanita, Monterey Coast paintbrush, Monterey ceanothus, Eastwood's goldenbush, south coast branching phacelia, Michael's rein orchid, and others listed in **Table 4.6-1**. Installation of the ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and the ASR Settling Basin could result in direct or indirect impacts to special-status plant species as described above under "*Overview of Potential Construction Effects on Plants"* (see **Table 4.6-4** for a complete list of special-status species that could be significantly impacted by construction of the proposed ASR facilities).

Special-status wildlife with a moderate to high potential to occur at the ASR facilities sites includes silvery legless lizard, coast horned lizard, red-tailed hawk, and Monterey dusky-footed woodrat. See **Table 4.6-1** for a complete list of special-status wildlife species and their potential to occur at the ASR facilities sites. If black legless lizard, silvery legless lizard, coast horned lizard, Monterey dusky-footed woodrat, Monterey shrew, or American badger are present in coastal sage scrub, central maritime chaparral, or oak woodland within the construction area, or if raptors or other special-status nesting passerines or roosting special-status bats are present within or in close proximity to the construction area, those species could be directly or indirectly impacted by construction as described above under "*Overview of Potential Construction Effects on Wildlife*."

Impacts to coast live oak woodland, maritime chaparral, and coast sage scrub, which are habitats for one or more of the special-status species listed above (including special-status plants, black legless lizard, silvery legless lizards, coast horned lizard, Monterey dusky-footed woodrat, Monterey shrew, and American badger) at this facility, is addressed in Impact 4.6-2. Substantial adverse effects on special-status species during construction of the ASR facilities, as described above, would result in a significant impact. Implementation of the following mitigation measures would reduce impacts to special-status species at this site to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1j (Avoidance and Minimization Measures for American Badger)**, **4.6-1k (Avoidance and Minimization Measures for Monterey Dusky-Footed Woodrat)**, **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1n (Habitat Mitigation and Monitoring**

Plan), and **4.14-2 (Site-Specific Construction Lighting Measures)**. These measures would address impacts to special-status species by requiring general and specific measures to avoid and minimize impacts to special-status species, including special-status plants, black legless lizard, silvery legless lizard, coast horned lizard, nesting birds, special-status bats, and Monterey dusky-footed woodrat.

Terminal Reservoir/ASR Pump Station

The Terminal Reservoir would be comprised of two 33-foot-high, 130-foot-diamater aboveground concrete tanks. The ASR Pump Station would be enclosed in an approximately 2,000-squre-foot concrete pump house. The concrete tanks and the ASR Pump Station would be constructed on a 1.8-acre concrete pad. Security fencing would enclose a 7-acre area around the Terminal Reservoir/ASR Pump Station. Construction of the Terminal Reservoir/ASR Pump Station is expected to take approximately 18 months to complete, with construction activities occurring only during daytime hours.

Central maritime chaparral occurs throughout the largely undisturbed Terminal Reservoir/ASR Pump Station site. Some areas within the site have been disturbed by development of access roads, and other uses related its former use a military reservation but overall, habitat quality appears relatively high.

Many special-status plants species have been observed and/or have a moderate to high potential to occur within the Terminal Reservoir/ASR Pump Station site. A full list of the special-status plant species that could be significantly impacted by construction of the Terminal Reservoir/ASR Pump Station is provided in **Table 4.6-4**. If special-status plants including sandmat manzanita, robust spineflower, Monterey Coast paintbrush, Monterey ceanothus, south coast branching phacelia, Michael's rein orchid,Carmel Valley bush-mallow, and other listed in **Table 4.6-4** are present within or immediately adjacent to the construction area, they could be directly or indirectly impacted as described above under "*Overview of Potential Construction Effects on Plants*", a significant impact.

California red-legged from and California tiger salamander could occur at these sites during upland dispersal. Black legless lizard, silvery legless lizard, and coast horned lizard have potential to occur within maritime chaparral. Monterey dusky-footed woodrat nests have been observed onsite and American badger may also occur onsite in chaparral. Raptors such as American kestrel may nest within the site and others such as red-tailed hawk may forage onsite. The site is likely to support numerous nesting bird species including western burrowing owl. Special-status bats may roost within trees onsite. If California red-legged frog, California tiger salamander, black legless lizard, silvery legless lizard, coast horned lizard, Monterey dusky-footed woodrat, and/or Monterey shrew occur within the Terminal Reservoir/ASR Pump Station site, or raptors, other special-status nesting passerines, or roosting bats are present within or adjacent to the construction work area, these species could be directly or indirectly impacted as described above under "*Overview of Potential Construction Effects on Wildlife*," a significant impact.

Construction-related impacts to maritime chaparral at the Terminal Reservoir/ASR Pump Station site, which is habitat for California red-legged frog, California tiger salamander, black legless

lizard, silvery legless lizards, coast horned lizard, dusky-footed woodrat, Monterey shrew, American badger, and several special-status plant species, are addressed in Impact 4.6-2.

Implementation of the following mitigation measures would ensure that impacts to special-status species at this site are reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard)**, **4.6-1h (Avoidance and Minimization Measures for Western Burrowing Owl)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1j (Avoidance and Minimization Measures for American Badger)**, **4.6-1k (Avoidance and Minimization Measures for Monterey Dusky-Footed Woodrat)**, **4.6-1l (Avoidance and Minimization for Special-status Bats)**, **4.6-1m (Avoidance and Minimization Measures for Native Stands of Monterey Pine)**,**4.6-1n (Habitat Mitigation and Monitoring Plan)**, and **4.6-1o (Avoidance and Minimization Measures for California Red-legged Frog and California tiger Tiger Salamander)**. These measures would require designation of a Lead Biologist to oversee compliance with protective measures for biological resources, construction worker training, implementation of general avoidance and minimization measures, and implementation of species-specific avoidance and minimization measures.

Valley Greens Pump Station

The proposed Valley Greens Pump Station is described in Section 3.4.3.8 of Chapter 3, Project Description. The pump station would be enclosed within a 500-square-foot single-story building and a 100-square-foot electrical control building would be constructed outside of the pump station building. Construction would occur during the daytime hours and would take approximately 2 months.

Special-status species that could be significantly impacted during construction of the Valley Greens Pump Station are listed in **Table 4.6-4**. Both Valley Greens Pump Station site options are located in developed and/or disturbed areas; these areas do not provide suitable habitat for most special-status species. However, California red-legged frog are known from the vicinity of both site options. Although they would not be expected to occur at site Option 2 since it is surrounded by development, they could occur in the ruderal margins of site Option 1 during upland dispersal. If California red-legged frog are present at site Option 1, construction of the Valley Greens Pump Station could impact these individuals as described above under "*Overview of Potential Construction Effects on Wildlife*," a significant impact. Additionally, raptors, such as red-tailed hawk or red-shouldered hawk, and birds protected under the MTBA and California Fish and Game Code may nest in trees that border the boundary of both site options. Special-status bats may also roost in trees within or adjacent to the construction area. Construction of the pump station would permanently impact currently developed and ruderal areas, whether it is constructed at either location, and would not result in the loss of habitat for special-status species. If raptors, other special-status nesting passerines, or roosting special-status bats are present within the

construction area, construction could directly or indirectly impact these species as described above under "*Overview of Potential Construction Effects on Wildlife*," which would be a significant impact.

Additionally, native stands of Monterey pine may occur within or adjacent to the site boundary. If present, these species could be directly or indirectly impacted by construction as described above under "*Overview of Potential Construction Effects on Plants*," which would be a significant impact.

However, implementation of the following mitigation measures would ensure that impacts to special-status species at this site are reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1m (Avoidance and Minimization Measures for Native Stands of Monterey Pine)**, **4.6-1n (Habitat Mitigation and Monitoring Plan)**, and **4.6-1o (Avoidance and Minimization Measures for California Red-legged frog and California tiger Tiger Salamander)**. These measures would require designation of a Lead Biologist to oversee compliance with protective measures for biological resources, construction worker training, implementation of general avoidance and minimization measures, and implementation of species-specific avoidance and minimization measures.

Ryan Ranch–Bishop Interconnection Improvements

The proposed Ryan Ranch–Bishop Interconnection Improvements are described in Section 3.4.3.9 of Chapter 3, Project Description. The 1.1-mile-long, 8-inch-diameter Ryan Ranch–Bishop Interconnection Improvements pipeline would extend between an existing interconnection at Highway 68 and Ragsdale Avenue and a new connection to the Bishop system located at the intersection of Wilson Road and Citation Court. Construction of the Ryan Ranch–Bishop Interconnection Improvements would occur during daytime hours and would take approximately 1 month to complete.

The proposed Ryan Ranch–Bishop Interconnection Improvements would be located within a business park area with existing stands of coast live oak woodland and non-native grassland interspersed throughout the developed areas. In general, construction disturbance would be limited to the road right-of-ways; however, there is an area of non-native grassland adjacent to the roadway where disturbance would occur.

Special-status species that could be significantly impacted during construction of the Ryan Ranch–Bishop Interconnection Improvements are indicated in **Table 4.6-4**. Although construction-related disturbance would be largely limited to the paved roadways, some special-status plant species could occur in coast live oak woodland adjacent to the construction area or non-native grassland within or adjacent to the construction area, including Hickman's onion, Toro manzanita, Michael's rein orchid, and native stands of Monterey pine. If these special-status plant species, or others listed in **Table 4.6-4**, occur within or immediately adjacent to the construction disturbance

areas, these plants could be significantly impacted by construction as described above under "*Overview of Potential Construction Effects on Plants*."

Although California tiger salamander breeding habitat is absent from the site, California tiger salamander breeding ponds are known within 1 mile of the Ryan Ranch–Bishop Interconnection Improvements (CDFW, 2015); thus, salamander could occur in upland habitat at the site during upland dispersal. California red-legged frog aquatic habitat is absent from site, however, this frog is known to breed within the Carmel River (CDFW, 2015) and could occur in grassland within the construction areas or other suitable upland habitat adjacent to construction area while dispersing. Additionally, Monterey dusky-footed woodrat, Monterey shrew, and/or American badger could occur in suitable habitat within or immediately adjacent to the Ryan Ranch–Bishop Interconnection Improvements site. Special-status nesting birds and bats could also occur within or adjacent to site. If these species, or others listed in **Table 4.6-4** are present, they could be directly or indirectly impacted by construction as described above under "*Overview of Potential Construction Effects on Wildlife*," a significant impact.

Construction-related impacts on special-status plant and animal species during construction of the Ryan Ranch-Bishop Interconnection Improvements would be significant (see **Table 4.6-4** for a complete list of special-status species that would be significantly impacted). However, implementation of the following mitigation measures would reduce impacts to special-status species to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds), 4.6-1j (Avoidance and Minimization Measures for American Badger)**, **4.6-1k (Avoidance and Minimization Measures for Monterey Dusky-Footed Woodrat)**, **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1m (Avoidance and Minimization Measures for Native Stands of Monterey Pine)**, **4.6-1n (Habitat Mitigation and Monitoring Plan)**, and **4.6-1o (Avoidance and Minimization Measures for California Red-legged frog and California Tiger Salamander)**. These measures would require designation of a Lead Biologist to oversee compliance with protective measures for biological resources, construction worker training, implementation of general avoidance and minimization measures, and implementation of species-specific avoidance and minimization measures.

Main System-Hidden Hills Interconnection Improvements

The proposed Main System-Hidden Hills Interconnection Improvements are described in Section 3.4.3.9 of Chapter 3, Project Description. The existing interconnection between the main CalAm distribution system and the Hidden Hills system would be improved by installing approximately 1,200 feet of 6-inch-diameter pipeline along the northern extent of Tierra Grande Drive. Additionally, a new pump would be added to the existing Middle Tierra Grande Booster Station located at the intersection of Tierra Grande Drive and Via Paloma. Construction of the Main System-Hidden Hills Interconnection Improvements would occur during daytime hours and would take approximately 1 month to complete.

The Main System–Hidden Hills Interconnection Improvements site is located in a low-density residential area. Construction disturbance would be limited to the road right-of-way, but coast live oak woodland, planted Monterey pines, and northern coastal scrub occur along the road edges. Additionally, coast live oak woodland occurs at the Middle Tierra Grande Booster Station outside of the existing facilities.

Special-status species that could be significantly impacted during construction of the Main System-Hidden Hills Interconnection Improvements are indicated in **Table 4.6-4**. Although construction-related disturbance would be limited to the paved roadways and existing facilities, some special-status plant species could occur in coast live oak woodland, non-native grassland, or scrub immediately adjacent to the developed areas, including Yadon's rein orchid, Hickman's onion, Toro manzanita, Michael's rein orchid, and native stands of Monterey pine. If these special-status plant species, or others listed in **Table 4.6-4**, occur within or immediately adjacent to the construction disturbance areas, they could be significantly impacted by construction as described above under "*Overview of Potential Construction Effects on Plants*."

Similarly, if California red-legged frog or California tiger salamander are dispersing through suitable habitat immediately adjacent to the work area during construction; if Monterey dusky-footed woodrat, Monterey shrew, or American badger are located in suitable habitat immediately adjacent to the construction area; if raptors or special-status nesting passerines, roosting special-status bats, or other special-status wildlife species listed in **Table 4.6-4**, are present within or adjacent to the construction work area, they could be directly or indirectly impacted by construction as described above under "*Overview of Potential Construction Effects on Wildlife*," which would be a significant impact.

Construction-related impacts on special-status animal species during construction of the Main System-Hidden Hills Interconnection Improvements would be significant (see **Table 4.6-4** for a complete list of special-status species that would be significantly impacted). However, implementation of the following mitigation measures would reduce impacts to special-status species to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds), 4.6-1j (Avoidance and Minimization Measures for American Badger)**, **4.6-1k (Avoidance and Minimization Measures for Monterey Dusky-Footed Woodrat)**, **4.6-1l (Avoidance and Minimization Measures for Special-status Bats)**, **4.6-1m (Avoidance and Minimization Measures for Native Stands of Monterey Pine)**, and **4.6-1n (Habitat Mitigation and Monitoring Plan)**. These measures would require designation of a Lead Biologist to oversee compliance with protective measures for biological resources, construction worker training, implementation of general avoidance and minimization measures, and implementation of species-specific avoidance and minimization measures.

Land Use Plan & Policy Consistency

In addition to the physical impacts described above, as noted in **Table 4.6-2**, MPWSP construction could conflict with applicable land use plans, policies, and ordinances related to the protection of special-status species that were adopted for the purpose of avoiding or mitigating an environmental effect. Specifically, the proposed project could conflict with the City of Marina General Plan Policies 4.112, 4.114, 4.118, 4.119, and 2.10; City of Marina Local Coastal Land Use Plan Policies 25 and 26 and Planning Guideline entitled Rare and Endangered Species: Habitat Protection; City of Monterey Del Monte Beach Land Use Plan Policies 3, 4, and 10; City of Monterey: Monterey Harbor Land Use Plan Policies 3.d, 3.e, and 3.k; Pacific Grove Municipal Code Title 12; Sand City Local Coastal Program Land Use Plan Policy 4.3.22; Sand City Municipal Code Chapter 16.12; City of Seaside Local Coastal Program Land Use Plan Policy NCR-CZ 1.1.C; Seaside Municipal Code Chapter 8.54; Monterey County General Plan Policies OS-4.1, OS-5.1, OS-5.2, OS-5.4, OS-5.16, and OS-5.25; Monterey County North County Land Use Plan Policies 2.3.2.1, 2.3.2.10, 2.3.3.B6, and 2.3.3.C2, and Key Policy 4.3.4; and Ford Ord Reuse Plan Biological Resource Policies A-4, B-1, D-1, and A-9, which were established to avoid or mitigate special-status species impacts. As discussed in the preceding paragraphs, **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1d (Avoidance and Minimization Measures for Western Snowy Plover)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1f (Avoidance and Minimization Measures for Smith's Blue Butterfly)**, **4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard)**, **4.6-1h (Avoidance and Minimization Measures for Western Burrowing Owl)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1j (Avoidance and Minimization Measures for American Badger)**, **4.6-1k (Avoidance and Minimization Measures for Monterey Dusky-Footed Woodrat)**, **4.6-1l (Avoidance and Minimization Measures for Special-stat Bats)**, **4.6-1m (Avoidance and Minimization Measures for Native Stands of Monterey Pine)**, **4.6-1n (Habitat Mitigation and Monitoring Plan)**, **4.6-1o (Avoidance and Minimization Measures for California Red-legged Frog and California tiger Tiger Salamander)**, **4.12-1b (General Noise Controls for Construction Equipment)**, and **4.14-2 (Site-Specific Construction Lighting Measures)** would reduce potential impacts to special-status species by requiring measures to avoid and/or mitigate impacts to individual special-status species and their habitat. Therefore, with these measures implemented, the MPWSP would be brought into conformance with the above-noted policies.

Impact Conclusion

Construction activities associated with all proposed project facilities have the potential to result in significant impacts on special-status species. For all facilities, implementation of the proposed mitigation measures would reduce impacts to special-status species to a less-than-significant level.

Mitigation Measures

Mitigation Measure 4.6-1a applies to all project components.

Mitigation Measure 4.6-1a: Retain a Lead Biologist to Oversee Implementation of Protective Measures.

Prior to initiation of construction, CalAm and/or representatives of CalAm shall retain a qualified Lead Biologist[14] to oversee compliance with avoidance and minimization measures for all special-status species and sensitive habitats. The Lead Biologist shall be onsite, or shall appoint qualified biologists and/or qualified biological monitors to be onsite, during all fencing and ground disturbance activities. The Lead Biologist, qualified biologists, and qualified biological monitors shall be subject to approval by resource agencies with jurisdiction over the special-status species with potential to occur at the project site (and local agencies, if required). Only the Lead Biologist and/or qualified biologists may lead protocol surveys and relocate special-status species, as authorized by the resource agencies with jurisdiction over these species.

In the event that construction-related activities have the potential to accidentally violate the prescribed special-status species and habitat protection measures, the project Lead Biologist, or other appointed qualified biological monitors shall report to construction or operational site supervisors with authority to stop work to prevent any violations. Work shall proceed only after the construction-related hazards to special-status species and habitats are removed and the species is no longer at risk. Violations shall be thoroughly documented as part of compliance monitoring activities.

The Lead Biologist shall ensure that all compliance monitoring activities are documented on a daily basis, and shall prepare a summary monitoring report on a monthly basis to be submitted to regulatory agencies upon their request. The monthly summary monitoring report shall provide information regarding the worker awareness training (see Mitigation Measure 4.6-1b below), surveys, and any observed special-status species, including any accidental injuries or fatalities. The monthly report shall also document the effectiveness and practicality of the prescribed avoidance and minimization measures and recommend modifications to the measures if needed. The Lead Biologist shall supply agency staff with copies of compliance records, including any reports of non-compliance, upon request.

The Lead Biologist shall have in her/his possession a copy of all compliance measures while work is being conducted onsite, and shall ensure that CalAm's onsite representatives and contractors also maintain copies of the compliance measures on the site.

14 The term "qualified biologist" or "qualified Lead Biologist" for surveys is defined as an individual who shall possess, at a minimum, a bachelor's degree in biology, ecology, wildlife biology or closely related field and has demonstrated prior field experience using accepted resource agency techniques for the survey prescribed, and who possesses all appropriate USFWS, NMFS, and CDFW permits. The term "biological monitor" or "qualified biological monitor" is defined as holding similar educational credentials to those of a qualified biologist and who has functioned as an environmental inspector or monitor on at least two construction projects within the preceding two years.

Mitigation Measure 4.6-1b applies to all project components.

Mitigation Measure 4.6-1b: Construction Worker Environmental Awareness Training and Education Program.

Prior to starting work, all construction workers at the project areas shall attend a Construction Worker Environmental Awareness Training and Education Program developed and presented by the Lead Biologist, appointed qualified biologist, and/or qualified biological monitor. The program shall include information on each federal and state-listed species, as well as other special-status wildlife and plant species and sensitive natural communities that may be encountered during construction activities. The training shall include: information on special-status species' life history and legal protections; the definition of "take" under the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA); the measures CalAm and/or its contractors have committed to implementing to protect special-status species and sensitive natural communities; reporting requirements and communication protocols; specific measures that each worker shall employ to avoid "take" of special-status species; and penalties for violation of FESA and/or CESA. Training shall be documented as follows:

a) An acknowledgement form shall be signed by each worker indicating that environmental training has been completed.

b) A sticker shall be placed on hard hats indicating that the workers have completed the environmental training. Construction workers shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker.

c) A copy of the training transcript/training video and/or DVD, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgement forms, shall be submitted to the CPUC.

Mitigation Measure 4.6-1c applies to all project components.

Mitigation Measure 4.6-1c: General Avoidance and Minimization Measures.

CalAm's construction contractor(s) shall implement the following general avoidance and minimization measures to protect special-status species and sensitive natural communities at the facility sites during construction:

a) The construction footprint, staging areas, equipment access routes, and disposal or temporary placement of spoils, shall be delineated with stakes and flagging prior to construction to avoid natural resources where possible. Any construction-related disturbance outside of these boundaries, including driving, parking, temporary access, sampling or testing, or storage of materials, shall be prohibited without explicit approval of the Lead Biologist.

b) New access driveways shall not extend beyond the delineated construction work area boundary. Construction vehicles shall pass and turn around only within the delineated construction work area boundary or local road network. Where new access is required outside of existing roads or the construction work area, the route shall be clearly marked (i.e., flagged and/or staked) prior to being used.

c) Vehicle speeds within the project area shall not exceed 15 miles per hour on roads within the sites.

d) Excavated soils shall be stockpiled in disturbed areas lacking native vegetation. Stockpile areas shall be marked by the Lead Biologist to define the limits where stockpiling can occur.

e) Standard best management practices (such as setbacks and use as silt fence and fiber rolls) shall be employed to prevent loss of habitat due to erosion caused by project related impacts (i.e., grading or clearing for new roads). All detected erosion shall be remedied within two days of discovery.

f) Fueling of construction equipment shall take place within existing paved areas, and at least 50 feet from drainages (including streams, creeks, ditches, culverts, or storm drain inlets) and native habitats. Contractor equipment shall be checked for leaks prior to operation and repaired when leaks are detected. Fuel containers shall be stored within appropriately-sized secondary containment barriers.

g) The introduction of exotic plant species shall be avoided through physical or chemical removal and prevention. Measures to prevent the introduction of exotic plants into the construction site via vehicular sources shall include implementing Trackclean or other method of vehicle cleaning for vehicles coming to the site and leaving the site. Earthmoving equipment shall be cleaned prior to transport to the project area. Weed-free rice straw or other certified weed-free straw shall be used for erosion control. Weed populations introduced into the site during construction shall be eliminated by chemical and/or mechanical means approved by California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS).

h) Use of herbicides as vegetation control measures shall be used only when mechanical means have been deemed ineffective. All uses of such herbicidal compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and state and federal legislation as well as additional project-related restrictions deemed necessary by the CDFW and/or USFWS. No rodenticides shall be used.

i) Prior to the start of construction at any proposed facility site where special-status amphibians, reptiles and mammals have a moderate or high potential to occur, the construction work area boundary shall be fenced with a temporary exclusion fence to prevent special-status wildlife from entering the site during construction (see **Table 4.6-4**, above, for the list of special-status species that could be significantly impacted at each project facility site). The exclusion fencing shall be constructed of metal flashing, plastic sheeting, or other materials that will prohibit California horned lizards, Monterey shrew, and other special-status reptiles, amphibians, and rodents from climbing the fence. The fencing shall be buried a minimum of 6 inches below grade to secure the fence and extend a minimum of 30 inches above grade. The fencing shall be inspected by the Lead Biologist or qualified biological monitor on a daily basis during construction activities to ensure fence integrity. Any needed repairs to the fence shall be performed on the day of their discovery. Fencing shall be installed and maintained during all phases of construction. Final fence design and location shall be determined in consultation with USFWS and CDFW. Exclusion fencing shall be removed once construction activities are complete.

j) If special-status wildlife species are found on the site during project construction, construction activities shall cease in the vicinity of the animal until the animal moves on its own outside of the project area (if possible). The wildlife resource agency(ies) with jurisdiction over the species shall be consulted regarding any additional avoidance, minimization, or mitigation measures that may be necessary if the animal does not move on its own. A report shall be prepared by the Lead Biologist to document the activities of the animal within the site; all fence construction, modification, and repair efforts; and movements of the animal once again outside the exclusion fence. This report shall be submitted to the CPUC and pertinent wildlife agencies with jurisdiction over the wildlife species.

k) Work shall be conducted during daylight hours to the extent practicable. Immediately prior to conducting vegetation removal or grading activities inside fenced exclusion areas, the Lead Biologist or a qualified biologist shall survey within the exclusion area to ensure that no special-status species are present. The Lead Biologist or a qualified biologist shall also monitor vegetation removal or grading activities inside fenced exclusion areas for the presence of special-status species.

l) To prevent the inadvertent entrapment of special-status wildlife during construction, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered with plywood or similar materials at the close of each working day, or escape ramps constructed of earth fill or wooden planks shall be positioned within the excavations to allow special-status wildlife to escape on their own. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If trapped animals are observed, escape ramps or structures shall be installed immediately to allow escape. If listed species are trapped, the USFWS and/or CDFW, as appropriate, shall be contacted to determine the appropriate method for relocation

m) All construction pipes, culverts, or similar structures that are stored at a construction site for one or more overnight periods and with a diameter of 4 inches or more shall be inspected for special-status wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a special-status animal is discovered inside a pipe, that section of pipe shall not be moved until the appropriate resource agency, with jurisdiction over that species, has been consulted to determine the appropriate method for relocation. If necessary, under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity until the animal has escaped.

n) All vertical tubes used in project construction, such as chain link fencing poles or signage mounts, shall be temporarily or permanently capped at the time they are installed to avoid the entrapment and death of special-status birds.

o) Water used for dust abatement shall be minimized to the extent feasible in an effort to avoid the formation of puddles that could attract common ravens and other predators to the construction work areas.

p) No vehicle or equipment parked in the project area shall be moved prior to inspecting the ground beneath the vehicle or equipment for the presence of wildlife. If present, the animal shall be left to move on its own.

q) All vehicles and equipment shall be in proper working condition to ensure that there is no potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Lead Biologist shall be informed of any hazardous

spills within 24 hours of the incident. Hazardous spills shall be immediately cleaned up and the contaminated soil shall be properly disposed of at a licensed facility.

r) A trash abatement program shall be implemented during construction. Trash and food items shall be contained in closed containers and removed from the construction site daily to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs.

s) Workers shall be prohibited from feeding wildlife and bringing pets and firearms to the construction work areas.

t) Intentional killing or collection of wildlife species, including special-status species in the project area and surrounding areas shall be prohibited.

u) All temporarily disturbed areas shall be returned to pre-project conditions or better.

Mitigation Measure 4.6-1d applies to the subsurface slant wells and Source Water Pipeline.

Mitigation Measure 4.6-1d: Protective Measures for Western Snowy Plover.

Construction contractors shall be required to implement the following measures to protect western snowy plover:

1. CalAm shall consult with the USFWS under Section 7 of the FESA and require that its construction contractor(s) implement all avoidance and minimization measures required by USFWS. Construction work at the northernmost subsurface slant well cluster and along the segment of the Source Water Pipeline located west of the CEMEX processing plant shall occur during the western snowy plover non-breeding season (defined as October 1 through February 28) unless otherwise approved by the USFWS.

2. For construction during the breeding season that is approved by USFWS, visual barriers shall be installed around any work area located within line of sight of potential nesting habitat. Visual barriers shall be constructed at an adequate height and width to visually block construction equipment and construction crews from snowy plover nesting habitat. Final designs of the visual barriers shall be coordinated with USFWS. Existing sand dunes may serve as visual barriers.

3. Work at the two southern slant well clusters and along the segment of the Source Water Pipeline east of the CEMEX processing plant and west of Highway 1 shall be conducted during the non-nesting season to the extent practicable. If work cannot be completed during the non-nesting season, the following measures shall be implemented:

    - Within 24 hours of initiation of construction activities, a qualified biologist with western snowy plover survey experience shall conduct pre-construction surveys within 300 feet of all construction work areas to determine if any snowy plover nests are present. If there is a break of 3 days or more in construction activities, a survey shall be conducted before construction begins again.

    - If nests are observed within 300 feet of construction activities, the qualified biologist shall notify and consult with USFWS to determine any additional

avoidance or minimization measures should be implemented prior to initiating construction activities.

4. A qualified biologist shall be present during all project construction activities on a periodic basis, as determined necessary by the Lead Biologist and USFWS, to monitor for potential impacts to western snowy plover. CalAm shall restore all temporarily impacted potential snowy plover habitat following construction. Restoration and mitigation activities shall be described in a Habitat Mitigation and Monitoring Plan consistent with **Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan)**.

5. Wire excluders or similar anti-perching devices shall be installed and maintained on the top of the proposed electrical control panel.

Mitigation Measure 4.6-1e applies to the subsurface slant wells, MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, Terminal Reservoir/ASR Pump Station, Ryan Ranch-Bishop Interconnection Improvements, and Main System-Hidden Hills Interconnection Improvements.

Mitigation Measure 4.6-1e: Avoidance and Minimization Measures for Special-status Plants.

Prior to construction, CalAm or its contractor shall conduct focused botanical survey(s) for special-status plants in all potentially suitable habitat during the appropriate blooming period for each species and in accordance with the guidelines established by California Department of Fish and Game in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG, 2009). Maps depicting the results of these surveys shall be prepared for use in final design. If more than two years elapse between the focused botanical surveys and commencement of ground disturbance activities, a final set of appropriately-timed focused botanical surveys shall be conducted and populations mapped. The results of these final surveys shall be combined with previous survey results to produce habitat maps showing habitat where the special-status plants have been observed during either of the focused botanical surveys conducted for each facility site.

Special-status plant species are widespread throughout the project area, and could occur at the following facility locations: the subsurface slant well site, ASR-5 and ASR-6 Wells sites, MPWSP Desalination Plant site, and Terminal Reservoir/ASR Pump Station site, and along the Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, Ryan Ranch-Bishop Interconnection Improvements, and Main System-Hidden Hills Interconnection Improvements.

a) To the extent feasible, project facilities shall be sited to avoid permanent and temporary impacts on special-status plants and their required constituent habitat elements.

b) Special-status plants located within temporary construction areas shall be fenced or flagged for avoidance (if feasible) prior to construction. The Lead Biologist or the appointed biological monitor shall ensure compliance with off-limits areas. If avoidance is not feasible, seasonal avoidance measures (i.e., limited operating

periods based on timing of annual plant dormancy), combined with topsoil salvage and site restoration, or other avoidance measures to be determined by the Lead Biologist and USFWS and CDFW, as appropriate, should be implemented.

c) For potential impacts to listed plant species, such as Menzies' wallflower, Monterey gilia, Monterey spineflower, and Yadon's rein orchid, CalAm shall comply with the federal and state Endangered Species Acts through consultation with the USFWS and the CDFW, respectively, and implement any resulting requirements.

d) Compensation for temporary or permanent loss of special-status plant occurrences, in the form of land purchase or restoration, shall be provided to the level acceptable to the resource agencies with jurisdiction over those species. Compensatory measures shall be determined on a case-by-case basis in consultation with the resource agencies with jurisdiction over those species. Compensation for loss of special-status plant populations typically involves the purchase and permanent stewardship of known occupied habitat or the restoration and reintroduction of populations in degraded, unoccupied habitat. Restoration or reintroduction may be located on- or offsite.

e) CalAm shall prepare a Habitat Mitigation and Monitoring Plan, as described in **Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan)**, which will describe either on-site or off-site restoration.

Mitigation Measure 4.6-1f applies to the Subsurface Slant Wells, Source Water Pipeline, Transmission Main, and Monterey Pipeline.

Mitigation Measure 4.6-1f: Avoidance and Minimization Measures for Smith's Blue Butterfly.

CalAm or its construction contractor(s) shall implement the following measures to address impacts to Smith's blue butterfly during construction:

a) CalAm shall consult with the USFWS under Section 7 of the FESA and require that its construction contractor(s) implement all avoidance and minimization measures required by USFWS.

b) Floristic botanical surveys of all suitable habitat for coast buckwheat and seacliff buckwheat, both of which are host plants to Smith's blue butterfly, shall be conducted by a qualified biologist during project design and prior to project implementation. Maps depicting the results of these surveys shall be prepared to document the location of the host plants within or adjacent to the project area.

c) Construction of project elements shall be planned to avoid mapped host plants for Smith's blue butterfly whenever feasible.

d) If it is not feasible to avoid disturbance to host plants during project construction, the following shall be implemented:

    a. Prior to the start of construction activities and before conducting preconstruction surveys for Smith's blue butterfly, the Lead Biologist or an appointed qualified biologist shall prepare a relocation plan for Smith's blue butterfly and its host plants. If either is found during the preconstruction surveys described below, the resource would be relocated in accordance with the plan. The relocation plan shall be submitted to USFWS for approval. The relocation plan shall define the

survey area, describe appropriate handling and relocation methods (such as digging up and removing individual plants, duff, and/or soil and moving them to a new location), and identify appropriate relocation sites.

b. A qualified biologist shall survey the work area no more than 30 days before the onset of ground disturbance. If any life stage of the Smith's blue butterfly or its host plants is found within the project area boundary, the Lead Biologist or qualified biologist shall relocate plants, duff, and/or soil, from the site before construction begins per the relocation plan described above.

e) Upon completion of construction activities, CalAm shall restore Smith's blue butterfly habitat temporarily impacted during construction. Compensatory mitigation for permanent impacts shall be provided either onsite or offsite at a minimum ratio of 1:1, or as otherwise negotiated with USFWS. Restoration and mitigation activities shall be described in the Habitat Mitigation and Monitoring Plan prescribed by **Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan)**.

Mitigation Measure 4.6-1g applies to the Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, and Terminal Reservoir/ASR Pump Station.

Mitigation Measure 4.6-1g: Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard.

The Lead Biologist shall appoint a qualified biologist possessing a Scientific Collecting Permit issued by CDFW for black legless lizard, silvery legless lizard, and coast horned lizard to conduct preconstruction surveys for legless lizards and coast horned lizard within 24-hours prior to the initiation of ground disturbing activities or vegetation clearing in suitable habitats such as central dune scrub, coast sage scrub, and central maritime chaparral.

a) Prior to conducting the surveys, the qualified biologist shall prepare a relocation plan that describes the appropriate survey and handling methods for the lizards, and identifies nearby relocation sites where the lizards would be relocated if found during the preconstruction surveys. Surveys should be conducted at relocation sites to determine the existing lizard population size and ensure that the relocation sites will not become overpopulated. Only relocation sites that are not overpopulated and have suitable habitat conditions (e.g., soils, moisture content, vegetation, aspect) shall be used. The relocation plan shall be submitted to CDFW for approval prior to the start of construction activities.

b) Legless lizard surveys shall be conducted by hand raking soil and leaf litter beneath brush. Legless lizards would then be relocated per the relocation plan.

c) Coast horned lizard surveys shall be conducted by walking transects spaced appropriately to allow for 100 percent visual coverage in search of lizards under shrubs, along gravelly-sandy areas, or any other suitable habitat. Any lizards would be relocated per the relocation plan.

Mitigation Measure 4.6-1h applies to the Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline and Terminal Reservoir/ASR Pump Station.

Mitigation Measure 4.6-1h: Avoidance and Minimization Measures for Western Burrowing Owl.

The following measures shall be implemented to avoid and minimize impact on western burrowing owl:

a) Prior to the start of construction activities in or around suitable burrowing owl habitat, the Lead Biologist shall appoint a qualified biologist to conduct protocol surveys for burrowing owl. The survey methodology shall be consistent with the methods outlined in the California Department of Fish and Game (CDFG; which has subsequently changed to California Department of Fish and Wildlife [CDFW]) *Staff Report on Burrowing Owl Mitigation* (March 2012). The surveys shall consist of walking parallel transects spaced 7 to 20 meters (23 to 65 feet) apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls. A copy of the protocol survey results shall be submitted to the CPUC and CDFW upon request. Protocol surveys shall be conducted within the both the breeding and non-breeding season to determine the presence/absence of burrowing owls.

b) A qualified biologist shall conduct preconstruction surveys of the permanent and temporary impact areas in or around suitable burrowing owl habitat to locate active breeding or wintering burrowing owl burrows not more than less than 14 days prior to construction and/or prior to exclusion fencing installation. The methodology for the preconstruction surveys shall be consistent with the methods outlined in the *Staff Report on Burrowing Owl Mitigation*.

c) If no burrowing owls are detected, no additional action is necessary.

d) In areas positive for burrowing owl presence, the Lead Biologist or qualified biological monitor shall be onsite during all construction activities in areas where burrowing owls are determined to be present.

e) If burrowing owls are detected during the nesting and fledging seasons (April 1 to August 15 and August 16 to October 15, respectively), no ground-disturbing activities shall be permitted within the distances specified in **Table 4.6-5** from an active burrow, unless otherwise authorized by CDFW. The specified buffer distance ranges from 656 feet to 1,640 feet, according to the time of year and the level of disturbance. Buffers shall be established in accordance with **Table 4.6-5** and occupied burrows shall not be disturbed during the nesting season unless a qualified biologist approved by CDFW verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Burrowing owls shall not be moved or excluded from burrows during the breeding season (April 1 to October 15).

TABLE 4.6-5
BURROWING OWL BURROW BUFFERS

Location	Time of Year	Level of Disturbance		
		Low	Medium	High
Nesting sites	April 1–August 15	656 feet	1,640 feet	1,640 feet
Nesting sites	August 16–October 15	656 feet	656 feet	1,640 feet
Any occupied burrow	October 16–March 31	164 feet	328 feet	1,640 feet

SOURCE: CDFG Staff Report, 2012.

f) During the non-breeding (winter) season (October 16 to March 31), consistent with **Table 4.6-5**, ground-disturbing work shall maintain a distance ranging from 164 to 1,640 feet from any active burrows, depending on the level of disturbance, to be determined through coordination with CDFW. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be displaced from winter burrows according to recommendations made in the *Staff Report on Burrowing Owl Mitigation*.

g) Burrowing owls should not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed by the Lead Biologist, approved by CDFW, and submitted to the CPUC. At a minimum, the plan shall include the following:

- Confirmation by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding the use of a scope to visually inspect the burrow;
- Specifications regarding the type of scope to be used and the appropriate timing of using a scope to visually inspect burrows to avoid disturbance of individual owls;
- Occupancy factors to look for and what shall guide determination of vacancy and excavation timing;
- Methods for burrow excavation. Excavation using hand tools with refilling to prevent reoccupation is preferable whenever possible;
- Removal of other potential owl burrow surrogates or refugia onsite;
- Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;
- Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use and to avoid take;
- Methods to ensure the impacted site shall continually be made inhospitable to burrowing owls and fossorial[15] mammals (e.g., by allowing vegetation to grow tall, heavy disking, or immediate and continuous grading) until development is complete.

h) Site monitoring shall be conducted prior to, during, and after exclusion of burrowing owls from their burrows sufficient to ensure take is avoided. Prior to exclusion activities, daily monitoring shall be conducted for one week to confirm young owls have fledged if the exclusion occurs immediately after the end of the breeding season.

i) Should burrowing owls be found onsite, compensatory mitigation for loss of breeding and/or wintering habitat shall be implemented onsite or offsite in accordance with burrowing owl *Staff Report on Burrowing Owl Mitigation* guidance and in consultation with CDFW. If compensatory mitigation is necessary, CalAm shall detail the compensatory mitigation in a Burrowing Owl Habitat Mitigation Plan (which shall be incorporated into the Habitat Mitigation and Monitoring Plan described in **Mitigation Measure 4.6-1n**). At a minimum, the following measures shall be implemented:

[15] Adapted to digging or burrowing.

- Temporarily disturbed habitat shall be restored, if feasible, to pre-construction conditions, including soil decompaction and revegetation.
- Permanent impacts to nesting, occupied and satellite burrows, and any other burrowing owl habitat shall be mitigated such that the habitat acreage, number of burrows, and number of burrowing owls impacted are replaced. Compensatory mitigation may include the permanent conservation of lands with similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) as those lands where the permanent loss of habitat would occur. Conservation lands should provide habitat for burrowing owl nesting, foraging, wintering, and/or dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals.

Mitigation Measure 4.6-1i applies to all project components.

Mitigation Measure 4.6-1i: Avoidance and Minimization Measures for Nesting Birds.

This measure applies to all nesting birds protected by the federal Migratory Bird Treaty Act and Section 3503 of the California Fish and Game Code, except for western snowy plover and western burrowing, which are addressed in Mitigation Measure 4.6-1d and 4.6-1h, respectively.

Nesting birds may be present at all of the proposed facility sites. A qualified biologist shall conduct preconstruction avian nesting surveys prior to initiation of construction activities at all facility sites, unless otherwise indicated below.

a) No preconstruction surveys or avoidance measures are required for construction activities that would be completed entirely during the non-nesting season (September 16 to January 31).

b) For all construction activities scheduled to occur during the nesting season (February 1 to September 15), the qualified biologist shall conduct a preconstruction avian nesting survey within 14 days of site clearing and/or ground disturbance. Copies of the survey results shall be submitted to the CPUC.

c) If construction activities at any given facility site begins in the non-breeding season and proceeds continuously into the breeding season, no surveys are required. However, if there is a break of 14 days or more in construction activities during the breeding season, a new nesting bird survey shall be conducted before reinitiating construction.

d) The surveying biologist shall be capable of determining the species and nesting stage without causing intrusive disturbance. The surveys shall cover all potential nesting sites within 500 feet of the project area for raptors and within 300 feet for other birds.

e) If active nests are found, a no-disturbance buffer (at least 300 to 500 feet for raptors and 50 to 100 feet for other birds [or as otherwise determined in consultation with CDFW] shall be created around the active nests). If the nest(s) are found in an area where ground disturbance is scheduled to occur, the project operator shall require that ground disturbance be delayed until after the birds have fledged.

Mitigation Measure 4.6-1j applies to the Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, Terminal Reservoir/ASR Pump Station, Ryan Ranch-Bishop Interconnection Improvements, and Main System-Hidden Hills Interconnection Improvements.

Mitigation Measure 4.6-1j: Avoidance and Minimization Measures for American Badger.

The following measures shall be implemented to avoid and minimize impacts on American badger:

a) A qualified biologist shall conduct preconstruction surveys for American badger dens prior to the start of construction at potentially affected sites. The survey results shall be submitted to the CPUC.

b) Areas of suitable habitat for American badger in the project area include fallow agricultural and grazing land and non-native grasslands. Surveys shall be conducted wherever these vegetation communities exist within 100 feet of the project area boundary. Along pipeline alignments surveys, shall be phased to occur within 14 days prior to disturbance along that portion of the alignment.

c) If no potential American badger dens are found during the preconstruction surveys, no further action is required.

d) If the biologist determines that any potential dens identified during the preconstruction surveys are inactive, the biologist shall excavate the dens by hand with a shovel to prevent use by badgers during construction.

e) If active badger dens are found during the course of preconstruction surveys, the following measures shall be taken to avoid and minimize adverse effects on American badger:

    i. Relocation shall be prohibited during the badger pupping season (typically February 15 to June 1).

    ii. Construction activities shall not occur within 50 feet of active badger dens. The Lead Biologist shall contact CDFW immediately if natal badger dens are detected to determine suitable buffers.

    iii. If the biologist determines that potential dens within the project area, and outside the breeding season, may be active, the biologist shall notify the CDFW. Badgers shall be passively relocated from active dens during the non-breeding season. Passive relocation may include incrementally blocking the den entrance with soil, sticks, and debris for three to five days to discourage use of these dens prior to project disturbance. After the qualified biologist determines that badgers have abandoned any active dens found within the project area, the dens shall be hand-excavated with a shovel to prevent re-use during construction.

Mitigation Measure 4.6-1k applies to the Transfer Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, Terminal Reservoir/ASR Pump Station, Ryan Ranch-Bishop Interconnection Improvements, and Main System-Hidden Hills Interconnection Improvements.

Mitigation Measure 4.6-1k: Avoidance and Minimization Measures for Monterey Dusky-Footed Woodrat.

The following measures shall be implemented to avoid and minimize impacts on Monterey dusky-footed woodrat:

a) A qualified wildlife biologist shall conduct preconstruction surveys for Monterey dusky-footed woodrat. The surveys shall be conducted within 14 days prior to the start of construction and shall identify any woodrat nests located within 50 feet of anticipated construction disturbance areas.

b) If woodrat nests are found during the preconstruction surveys, the wildlife biologist shall conduct additional surveys throughout the duration of construction activities at the potentially affected facility site to identify any newly constructed woodrat nests.

c) If nests are observed outside of the construction area, the qualified biologist shall demarcate a suitable buffer area with orange construction fencing and require that all construction activities and disturbance remain outside of the fencing.

d) Active woodrat nests located within the anticipated construction disturbance areas shall be relocated. To the extent feasible, nests should be relocated outside of the peak breeding season, (peak breeding season is typically February through November). Relocation of woodrats and/or their nests shall be conducted by the Lead Biologist or qualified wildlife biologist as follows:

    i. Clear understory vegetation from around the nest using hand tools.

    ii. After all vegetative cover has been cleared around the nest, the biologist shall gently disturb the nest to encourage the woodrat(s) to abandon the nest and seek cover in adjacent habitat.

    iii. Once the woodrats have left the nest, the biologist shall carefully relocate the nest sticks to suitable habitat outside of the construction disturbance area, piling the sticks at the base of trees or large shrubs if available. If multiple nests are relocated, the stick piles shall be placed at least 25 feet from one another.

    iv. The Lead Biologist shall ensure potential health hazards to the biologists moving nests are addressed to minimize the risk of contracting diseases associated with woodrats and woodrat nests. These include hantavirus, Lyme disease, and plague. The biologists that relocate nests shall take the following precautionary safety measures:

        a. Wear a Cal/OSHA-certified facial respirator to reduce inhalation of potential disease causing organisms.

        b. Wear a white Tyvec protective suit to provide a barrier for ticks and fleas and facilitate their detection and removal.

    If nest relocation cannot be avoided within the peak breeding season, the Lead Biologist shall contact CDFW for further guidance on relocating woodrat nests and shall implement all further CDFW recommendations.

Mitigation Measure 4.6-1l applies to the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline,

Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, Terminal Reservoir/ASR Pump Station, Ryan Ranch-Bishop Interconnection Improvements Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station Options 1 and 2.

Mitigation Measure 4.6-1l: Avoidance and Minimization Measures for Special-status Bats.

A preconstruction survey for special-status bats shall be conducted by a qualified biologist prior to construction activities to characterize potential bat habitat and identify active roost sites. Surveys should be conducted within the 100 feet of construction activities. Should potential roosting habitat or active bat roosts be found in trees and/or structures to be removed under the project, the following measures shall be implemented:

1. Removal of trees and structures shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15; outside of bat maternity roosting season (approximately April 15 – August 31) and outside of months of winter torpor (approximately October 15 – February 28) to the extent feasible.

2. If removal of trees and structures during the periods when bats are active is not feasible and active bat roosts being used for maternity or hibernation purposes are found on or in the immediate vicinity of the project site where tree and structure removal is planned, a no-disturbance buffer of 100 feet shall be established around these roost sites until they are determined to be no longer active by the qualified biologist.

3. The qualified biologist shall be present during tree and structure removal if potential roosting habitat or active bat roosts are present. Trees and structures with active roosts shall be removed only when no rain is occurring or is forecast to occur for 3 days and when daytime temperatures are at least 50°F.

4. Removal of trees with active or potentially active roost sites shall follow a two-step removal process:

    a. On the first day of tree removal and under supervision of the qualified biologist, branches and limbs not containing cavities or fissures in which bats could roost, shall be cut only using chainsaws.

    b. On the following day and under the supervision of the qualified biologist, the remainder of the tree may be removed, either using chainsaws or other equipment (e.g. excavator or backhoe).

5. Removal of structures containing or suspected to contain active bat roosts shall be dismantled under the supervision of the qualified biologist in the evening prior to the emergence of bats. Structures shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost.

Should an active bat roost being used for maternity or hibernation be found within 100 feet of the construction activities in trees and/or structures that will not be removed under the project a no-disturbance buffer of 100 feet shall be established around these roost sites until they are determined to be no longer active by the qualified biologist.

Bat roosts that begin during construction are presumed to be unaffected, and no buffer would be necessary

a) A qualified biologist possessing a CDFW bat collection permit shall conduct preconstruction surveys for roosting bats within 14 days prior to any construction activities located within 250 feet of potential bat roosting habitat. No activities that could disturb active roosts shall proceed prior to the completed surveys.

b) If a bat roost is found during preconstruction surveys, the project schedule shall be modified, and a no-disturbance buffer zone shall be established around the roost. The buffer zone shall be at least 100 feet unless otherwise authorized by CDFW. Bat roosts initiated during construction are presumed to be unaffected, and no buffer is necessary for those roosts. However, the "take" of individuals is prohibited.

c) If there is a maternity colony present within the construction work area, construction shall not commence within the buffer area until after young are flying (typically after August 15 unless otherwise confirmed by the qualified biologist) or before maternity colonies form the following year (i.e. prior to March 1).

Mitigation Measure 4.6-1m applies to the Transfer Pipeline, Monterey Pipeline, Terminal Reservoir/ASR Pump Station, Valley Greens Pump Station (both site options), Ryan Ranch-Bishop Interconnection Improvements, and Main System-Hidden Hills Interconnection Improvements.

Mitigation Measure 4.6-1m: Avoidance and Minimization Measures for Native Stands of Monterey Pine.

A qualified botanist or arborist shall conduct surveys for native stands of Monterey pine prior to completion of final project design documents. Individual Monterey pine trees existing within the construction work area shall be evaluated to determine if they are native occurrences, relics, or otherwise naturally-occurring remnants of the past historic range. Maps depicting the results of these surveys shall be prepared for consideration during final facility design. Native stands of Monterey pine could occur at the identified facility sites and pipeline alignments based on the historical extent of native Monterey pines and biological reconnaissance surveys.

To the extent feasible, project facilities shall be sited and construction activities planned to avoid impacts on native stands of Monterey pine. Any native stands of Monterey pines located within the anticipated construction disturbance area shall be fenced or flagged for avoidance prior to construction, and a biological monitor shall be present to ensure compliance with off-limits areas.

If removal of native stands of Monterey pine cannot be avoided, trees shall be replaced at a 2:1 ratio for trees removed or directly impacted by construction activities. Only local Monterey pine genetic stock shall be used for replanting at the project site. Replacement plantings shall be planted contiguous with other individuals of the same species in areas that are determined to have suitable site conditions. Protective fencing shall be installed around the seedlings to protect against disturbance. Replacement trees shall be maintained and monitored for a period of five years to ensure success. The Habitat Mitigation and Monitoring Plan to be prepared in accordance with **Mitigation Measure 4.6-1n (Habitat Mitigation and Monitoring Plan)** shall detail the monitoring requirements and success criteria.

This mitigation measures applies to native stands of Monterey pines. Independent of whether Monterey pines in the project area are considered native stands, individual trees may be subject to local tree ordinances; see **Mitigation Measure 4.6-5 (Compliance with Local Tree Policies and Ordinances)**.

Mitigation Measure 4.6-1n applies to the subsurface slant wells, MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, Terminal Reservoir/ASR Pump Station, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Stations (both site options).

Mitigation Measure 4.6-1n: Habitat Mitigation and Monitoring Plan

CalAm shall develop and submit a Habitat Mitigation and Monitoring Plan (HMMP) to the appropriate resource agencies (CCC, CDFW, RWQCB, USACE, USFWS, and local agencies that require a habitat mitigation and monitoring plan) for approval. The HMMP shall be implemented at all areas where special-status species habitat or special-status natural communities will be restored or mitigated to compensate for project impacts. The HMMP shall outline measures to be implemented to, depending on the mitigation requirements, restore, improve, or re-establish special-status species habitat, sensitive communities, and critical habitat on the site, and shall include the following elements:

- Planting Plan depicting species, planting locations and spacing
- Site preparation guidelines for replanting, including grading
- Collection and propagation of site-specific plant materials
- Planting methods, including weed barriers and cages, as needed
- Soil amendments
- Irrigation plan, with proposed rates and duration of watering
- Site protection against unauthorized access and vandalism
- Weeding and other maintenance tasks and schedule
- Performance standards by which successful completion of mitigation can be assessed and ensured
- Monitoring methods and schedule
- Reporting requirements
- Adaptive management and corrective actions to achieve the established success criteria
- Description of any compensation in the form of land purchase or restoration

Mitigation Measure 4.6-1o applies to the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Transfer Pipeline, Terminal Reservoir/ASR Pump Station, Valley Greens Pump Station (site Option 1), and Ryan Ranch-Bishop Interconnection Improvements.

Mitigation Measure 4.6-1o: Avoidance and Minimization Measures for California Red-legged Frog and California tiger Tiger Salamander.

A preconstruction survey for California red-legged frog and California tiger salamander shall be conducted by a qualified biologist in suitable habitat where there is a moderate to high potential for these species to occur prior to vegetation removal or grading, as specified below:

- Prior to conducting the surveys, the qualified biologist shall prepare a relocation plan that describes the appropriate survey and handling methods for California red-legged frog and California tiger salamander, and identifies nearby relocation sites where individuals would be relocated if found during the preconstruction surveys. The relocation plan shall be submitted to USFWS and CDFW for approval prior to the start of construction activities.

- Preconstruction surveys shall be conducted within 5 days prior to, and immediately prior to, vegetation removal, grading, or installation of exclusion fence to identify any California red-legged frog, California tiger salamander, and any small mammal burrows.

- Small mammal burrows identified during preconstruction surveys shall be surveyed (through hand-excavation, scoping, or other suitable methods to be determined in consultation with USFWS and CDFW) to identify any California red-legged frog or California tiger salamander. Once the burrow is confirmed to be vacant, the burrow shall be collapsed.

- If California red-legged frog or California tiger salamander are observed within the construction area, a qualified biologist shall relocate the individual according to the relocation plan above and only with authorization from USFWS and CDFW.

- Exclusion fencing shall be installed around construction areas where there is a moderate to high potential for these species to occur as specified in **Mitigation Measure 4.6-1c (General Avoidance and Minimization Measures)**.

- The qualified biologist shall monitor vegetation removal and grading inside the exclusion fence as specified in **Mitigation Measure 4.6-1c (General Avoidance and Minimization Measures)**.

Mitigation Measure 4.12-1b applies to the subsurface slant wells and Source Water Pipeline west of Highway 1.

Mitigation Measure 4.12-1b (General Noise Controls for Construction Equipment)

(See Impact 4.12-1 in Section 4.12, Noise and and Vibration, for description.)

Mitigation Measure 4.14-2 applies to subsurface slant wells, MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin.

Mitigation Measure 4.14-2: Site-Specific Construction Lighting Measures.

(See Impact 4.14-2 in Section 4.14, Aesthetic Resources, for description.)

Impact 4.6-2: Result in substantial adverse effects on riparian habitat, critical habitat, or other sensitive natural communities during construction. (*Less than Significant with Mitigation*)

This impact addresses impacts to sensitive natural communities (including riparian habitat) and designated critical habitat.

Sensitive Natural Communities (Including Riparian Habitat) in the Project Area

Several of the vegetation communities that occur in the project area are considered sensitive natural communities for the purposes of this analysis for one or more of the following reasons: (a) they are considered a sensitive natural community by CDFW;(b) when they occur in the coastal zone, they are considered ESHA by the CCC, or are designated as ESHA in one or more of the applicable Local Coastal Plans (LCPs); and/or (c) they are considered a sensitive community by one or more of the affected local jurisdictions, or are designated as a sensitive community in one or more of the general plans applicable to the project area.

ESHAs are defined by the Coastal Act as "any area in which plant or animal life or their habitats 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." LCPs within the project area utilize the Coastal Act definition for ESHAs and some LCPs include additional guidance to determine ESHA boundaries within their respective LCP area. **Table 4.6-2** in Section 4.6.2.3, Regulatory Framework, above, presents an evaluation of project consistency with the applicable LCP policies that relate to ESHAs. Wetlands and other waters may also be considered ESHA areas and sensitive natural communities; however potential impacts to wetlands or other waters are addressed below under Impact 4.6-3.

The sensitive natural communities listed below occur within, or in the vicinity of, the project area and are considered in this analysis. Section 4.6.1.10, Sensitive Terrestrial Biological Resources in the Project Area, above, describes how these communities are distributed throughout the project area.

- beach
- central maritime chaparral
- central dune scrub
- coast live oak woodland
- coastal sage scrub
- riparian woodland and scrub

Critical Habitat in the Project Area

As discussed above in Section 4.6.1.9, Critical Habitat, several proposed project elements are either within or in close proximity to designated critical habitat for five federally endangered or threatened species: Monterey spineflower, Yadon's rein orchid, south/central California coast steelhead, California red-legged frog, and western snowy plover. See **Figure 4.6-3** for designated critical habitat within and around the project area. Proponents of projects that have the potential to impact critical habitat must consult with USFWS regarding "take" authorization for potential impacts to the federally threatened or endangered species itself. Impacts within critical habitat are generally only considered significant if they adversely affect the primary constituent habitat elements[16] required by the corresponding species. Sensitive communities and critical habitat within or adjacent to project construction areas could be temporarily or permanently impacted during project construction. A discussion of the potential construction-related impacts to sensitive communities and critical habitat associated with each project facility is provided below.

Subsurface Slant Wells

Sensitive Natural Communities. Central dune scrub occurs in and around the subsurface slant well site. As described in Section 4.6.1.4, Vegetation Communities and Habitat Types, central dune scrub in this area is found in moderately disturbed areas where sand mining activities have recently occurred as well as in relatively undisturbed dune vegetation. Beach occurs in the immediate vicinity, but outside of the subsurface slant well site. Construction of the subsurface slant wells would occur in the Coastal Zone and would be subject to the City of Marina Local Coastal Land Use Plan. Central dune scrub at the subsurface slant well site and beach adjacent to the site may be considered primary and secondary habitat under the City of Marina Local Coastal Land Use Plan, and may be considered ESHA by the CCC.

As described in Section 3.4.1 of Chapter 3, Project Description, slant well construction would temporarily disturb approximately 10 acres in the CEMEX mining area, including a portion of the CEMEX access road and central dune scrub. Slant well construction (including drilling, staging, and truck access) would temporarily disturb sensitive central dune scrub through direct removal of vegetation and changes to topography. Construction of the nine permanent subsurface slant wells in the CEMEX mining area is scheduled to occur in 6-month increments over a total of 18 months; however, slant well construction could occur anytime during the 30-month overall construction period. Temporary disturbance to central dune scrub during construction would be a significant impact. Additionally, slant well construction activities could potentially result in adverse effects to the beach located immediately adjacent to (west of) the slant well construction area if construction activities were to inadvertently extend beyond the designated construction area. This would be a significant impact.

16 A primary constituent habitat element is a physical or biological feature essential to the conservation of a species for which its designated or proposed critical habitat is based on, such as space for individual and population growth, and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and habitats that are protected from disturbance or are representative of the species' historic geographic and ecological distribution.

Two permanent aboveground structures would be constructed within central dune scrub: the 8-square-foot electrical control panel and the 48-square-foot electrical control building. These structures would result in the permanent loss of approximately 56 square feet of central dune scrub. The permanent loss of central dune scrub is considered a significant impact. Mitigation measures that would be implemented at the subsurface slant well site to reduce the significant impact to a less-than-significant level are identified below under Critical Habitat.

Critical Habitat. Critical habitat for western snowy plover is located approximately 115 feet west of, and outside of, the proposed subsurface slant well site. The Federal Register listing notice for western snowy plover (77 FR 118) defines the primary constituent elements for the western snowy plover as sandy beaches, dune systems immediately inland of an active beach face, salt flats, mud flats, seasonally exposed gravel bars, artificial salt ponds and adjoining levees, and dredge spoil sites, with:

1. Areas that are below heavily vegetated areas or developed areas and above the daily high tides;

2. Shoreline habitat areas for feeding, with no or very sparse vegetation, that are between the annual low tide or lowwater flow and annual high tide or highwater flow, subject to inundation but not constantly under water, that support small invertebrates, such as crabs, worms, flies, beetles, spiders, sand hoppers, clams, and ostracods, that are essential food sources;

3. Surf- or water-deposited organic debris, such as seaweed (including kelp and eelgrass) or driftwood located on open substrates that supports and attracts small invertebrates described in (2) for food, and provides cover or shelter from predators and weather, and assists in avoidance of detection (crypsis) for nests, chicks, and incubating adults; and

4. Minimal disturbance from the presence of humans, pets, vehicles, or human-attracted predators, which provide relatively undisturbed areas for individual and population growth and for normal behavior.

Subsurface slant well construction would occur outside of western snowy plover critical habitat and would not result in direct impacts to critical habitat. However, construction of the second slant well at the northernmost well cluster (i.e., the other slant well in this cluster is the existing test slant) would occur approximately 115 feet east of critical habitat for western snowy plover. Slant well construction could indirectly impact this critical habitat if worker foot traffic extends beyond the designated construction work area and/or if trash and debris is left behind following construction. Indirect impacts to critical habitat would be significant.

Implementation of the following mitigation measures would reduce impacts to sensitive communities and critical habitat resulting from slant well construction to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures), 4.6-1d (Protective Measures for Western Snowy Plover), 4.6-1n (Habitat Mitigation and Monitoring Plan), 4.6-2a (Consultation with Local Agencies and the California Coastal**

Commission regarding Environmentally Sensitive Habitat Areas), and **4.6-2b (Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities)**. These measures would address impacts to sensitive natural communities and critical habitat by: designating a lead biologist to oversee implementation of protective measures; requiring worker training regarding the sensitive habitats present at the site; requiring general measures such as exclusion fencing to avoid and minimize impacts to sensitive habitats; requiring specific measures to avoid and minimize impacts to western snowy plover habitat; developing and implementing a mitigation and monitoring plan for temporarily and permanently impacted habitats; determining the extent of ESHA and ensuring the project conforms to ESHA policies; and requiring specific measures to avoid, minimize, and potentially compensate for, impacts to sensitive habitats.

MPWSP Desalination Plant

The proposed MPWSP Desalination Plant would be constructed on the upper terrace (approximately 25 acres) of a 46-acre vacant parcel on Charles Benson Road.

Sensitive Natural Communities. Vegetation at the MPWSP Desalination Plant site is ruderal. No sensitive communities were identified at this site during reconnaissance level surveys conducted in preparation of this EIR. The site is outside of the Coastal Zone and would not be subject to the Coastal Act. No impact to sensitive natural communities would result from construction of the MPWSP Desalination Plant. No mitigation is necessary.

Critical Habitat. Critical habitat does not occur within the MWSP Desalination Plant site. However, critical habitat for south/central California coast steelhead occurs along the Salinas River, which is approximately 850 feet north of the MPWSP Desalination Plant. The Federal Register listing notice for south/central California coast steelhead (70 FR 52488 - 52627) defines primary constituent elements for this species as: freshwater spawning sites, freshwater rearing sites, freshwater migration corridors, estuarine areas free of obstruction, and offshore marine areas with water quality and habitat conditions suitable to support this species.

Construction of the MPWSP Desalination Plant would not directly impact south/central California coast steelhead critical habitat. However, soil-disturbing activities at the site could result in soil erosion and the migration of eroded soil and sediment downgradient towards the Salinas River. As discussed under Impact 4.3-1 in Section 4.3, Surface Water Hydrology and Water Quality, project construction activities that disturb more than 1 acre are subject to the NPDES Construction General Permit requirements. Per the requirements, a SWPPP would be prepared by a Qualified SWPPP Developer and a Qualified SWPPP Practitioner would oversee its implementation. The SWPPP, which would include site-specific erosion and stormwater control measures to be implemented during construction of the MPWSP Desalination Plant, would reduce or eliminate the offsite migration of pollutants and sediment. Mandatory compliance with the NPDES Construction General Permit would avoid substantial adverse effects on water quality in critical habitat along the Salinas River. Thus, the impact to critical habitat along the Salinas River would be less than significant and no mitigation is necessary.

Pipelines North of Reservation Road

Source Water Pipeline

The Source Water Pipeline is described in Chapter 3, Project Description, Section 3.4.1.2. Construction of this pipeline would take approximately 6 months.

Sensitive Natural Communities. Central dune scrub, a sensitive natural community, occurs along the Source Water Pipeline alignment. As described in Section 4.6.1.4, Vegetation Communities and Habitat Types, the occurrence of central dune scrub in this area ranges from relatively undisturbed areas dominated by native species, to disturbed areas dominated by a combination of native and non-native invasive species. Central dune scrub occurs along the portions of the Source Water Pipeline area that are located within the Coastal Zone. Central dune scrub within the Coastal Zone may be considered primary or secondary habitat under the City of Marina Local Coastal Land Use Plan, and may be designated as ESHA under the North County Land Use Plan Local Coastal Program and by the CCC.

Earthmoving activities associated with installation of the Source Water Pipeline could result in the temporary loss of central dune scrub (upon completion of construction, the site would be graded and revegetated). Additionally, the movement of construction vehicles and equipment over vegetated areas, as well as inadvertent discharges of pollutants to these areas via stormwater runoff, could result in direct and indirect impacts to central dune scrub located within and immediately adjacent to the construction work areas. Temporary and indirect impacts to central dune scrub would be significant. Mitigation measures that would be implemented to reduce the significant impacts to a less-than-significant level are identified below under Critical Habitat.

Critical Habitat. Critical habitat for western snowy plover is located outside of, and approximately 115 west of, the western terminus of the Source Water Pipeline. The primary constituent elements for snowy plover critical habitat are listed in the impact discussion for the subsurface slant wells, above.

Installation of the Source Water Pipeline would not result in direct impacts to critical habitat. However, pipeline installation activities could indirectly impact the nearby critical habitat for western snowy plover if construction worker foot traffic extends beyond the designated construction area and/or if trash and debris is left behind following construction. Indirect impacts to critical habitat would be significant.

Implementation of the following mitigation measures would reduce impacts to sensitive communities and critical habitat associated with construction of the Source Water Pipeline to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1d (Protective Measures for Western Snowy Plover)**, **4.6-1n (Habitat Mitigation and Monitoring Plan), 4.6-2a (Consultation with Local Agencies and the California Coastal Commission regarding Environmentally Sensitive Habitat Areas)**, and **4.6-2b (Avoid, Minimize, and Compensate for Construction Impacts to Sensitive**

Communities). As summarized above in the impact discussion for the subsurface slant wells, these measures would address impacts to sensitive natural communities and critical habitat by requiring implementation of general and specific protective measures.

Desalinated Water Pipeline

The Desalinated Water Pipeline is described in Chapter 3, Project Description, Section 3.4.3.3. Construction of this pipeline would take approximately 6 months.

Sensitive Natural Communities. Central dune scrub and riparian woodland and scrub, both of which are sensitive communities, occur along the Desalinated Water Pipeline alignment. Central dune scrub in this area is relatively disturbed and is dominated by a combination of native and non-native invasive species. Riparian woodland and scrub forms a riparian corridor along the Locke-Paddon Park pond. The central dune scrub and riparian woodland and scrub that occur along portions of the Desalinated Water Pipeline alignment are within the Coastal Zone. Riparian woodland and scrub and central dune scrub may be considered primary and secondary habitat under the City of Marina Coastal Land Use Plan, and may be designated as ESHA under the North County Land Use Plan Local Coastal Program and by the CCC.

Earthmoving activities associated with installation of the Desalinated Water Pipeline could result in the temporary loss of central dune scrub and riparian woodland and scrub (upon completion of construction, the site would be graded and revegetated to its pre-construction condition). Additionally, the movement of construction vehicles and equipment over vegetated areas, as well as inadvertent releases of pollutants to these areas via stormwater runoff, could result in direct and indirect impacts to central dune scrub and riparian woodland and scrub located within and immediately adjacent to the construction corridor. Temporary and indirect impacts to central dune scrub would be significant.

Implementation of the following mitigation measures would reduce impacts to sensitive communities associated with installation of the Desalinated Water Pipeline to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1n (Habitat Mitigation and Monitoring Plan), 4.6-2a (Consultation with Local Agencies and the California Coastal Commission regarding Environmentally Sensitive Habitat Areas)**, and **4.6-2b (Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities)**. As summarized above in the impact discussion for the subsurface slant wells, these measures would address impacts to sensitive natural communities by requiring implementation of general and specific protective measures.

Critical Habitat. There is no critical habitat within, or adjacent to, the Desalinated Water Pipeline alignment. Therefore, installation of the Desalinated Water Pipeline would have no impact to critical habitat.

Salinas Valley Return Pipeline and Brine Discharge Pipeline

The Salinas Valley Return Pipeline and Brine Discharge Pipeline are described in Sections 3.4.3.10 and 3.4.2.6 of Chapter 3, Project Description, respectively. Each pipeline would take approximately 3 months to install.

Sensitive Natural Communities. The proposed Salinas Valley Return Pipeline and Brine Discharge Pipeline contain developed and landscaped areas and a few patches of non-native grassland. No sensitive communities were identified along these alignments during reconnaissance level surveys conducted in preparation of this EIR. These alignments are outside of the Coastal Zone and would not be subject to the Coastal Act. No impact to sensitive communities would result from construction of the Salinas Valley Return Pipeline and Brine Discharge Pipeline and no mitigation is necessary.

Critical Habitat. There is no critical habitat within the proposed Salinas Valley Return Pipeline and Brine Discharge Pipeline alignments. The Salinas River, which is designated as critical habitat for south/central California coast steelhead, is located approximately 1,200 feet north of the northern terminus of both pipelines. The primary constituent elements for south/central California coast steelhead critical habitat are discussed above in the discussion for the MPWSP Desalination Plant.

Construction of the Salinas Valley Return Pipeline and Brine Discharge Pipeline would not result in significant indirect impacts to south/central California coast steelhead critical habitat. Similar to the discussion above for the MPWSP Desalination Plant, pipeline installation activities would also be subject to the NPDES Construction General Permit requirements and the SWPPP would include erosion and stormwater control measures to be implemented during construction. These measures would help to prevent pollutants and sediment generated during pipeline installation activities from migrating downstream and entering the Salinas River. Mandatory compliance with the NPDES Construction General Permit would avoid substantial adverse effects on water quality in critical habitat along the Salinas River. Thus, the impact to critical habitat along the Salinas River would be less than significant and no mitigation is necessary.

Pipelines and Other Conveyance Facilities South of Reservation Road

Transmission Main

The Transmission Main is described in Chapter 3, Project Description, Section 3.4.3.4, of this EIR. Construction of this pipeline would take approximately 6 months to complete.

Sensitive Natural Communities. Central dune scrub, a sensitive natural community, occurs along the Transmission Main alignment. As described in Section 4.6.1.4 Vegetation Communities and Habitat Types, the occurrence of central dune scrub in this area ranges from areas dominated by non-native species to areas with higher cover of native dune scrub species. The central dune scrub found along the Transmission Main alignment is located within the Coastal Zone and may be considered ESHA under the City of Marina Local Coastal Land Use Plan and Sand City Local Coastal Program, and by the CCC.

Depending on the final pipeline design and alignment, installation of the Transmission Main may temporarily impact central dune scrub through direct removal of vegetation during open-trench excavation activities or from trampling of the vegetation from construction vehicle access. Additionally, central dune scrub adjacent to the construction area could be indirectly impacted if worker foot traffic were to extend beyond the designated construction work area and/or if trash and debris is left behind following construction. Temporary impacts to central dune scrub during construction would be significant. However, with implementation of the mitigation measures prescribed under the heading, Critical Habitat, below, would reduce the impacts to a less-than-significant level. No permanent impacts to central dune scrub would result from installation of the Transmission Main.

Critical Habitat. The majority of the Transmission Main alignment is located east of Monterey spineflower critical habitat, except for an approximately 860-foot-long pipeline segment located within the southern end of Critical Habitat Unit 3. The Federal Register listing notice for Monterey spineflower (73 FR 6) defines the primary constituent elements for this species as, "a vegetation structure arranged in a mosaic with openings between the dominant elements (e.g., scrub, shrub, oak trees, or clumps of herbaceous vegetation) that changes in spatial position as a result of physical processes such as windblown sands and fire and that allows sunlight to reach the surface of the following sandy soils: coastal beaches, dune land, Baywood sand, Ben Lomond sandy loam, Elder sandy loam, Oceano loamy sand, Arnold loamy sand, Santa Ynez fine sandy loam, Arnold- Santa Ynez complex, Metz complex, and Metz loamy sand."

Depending on final pipeline design and alignment, installation of the Transmission Main could temporarily impact approximately 1 acre of Monterey spineflower critical habitat by adversely affecting primary constituent elements such as sandy soil openings between vegetation. Additionally, critical habitat located outside of the designated construction work area could be impacted if construction worker foot traffic extends beyond the work area, and/or if construction related-trash is left behind. The area that could be temporarily impacted during construction is located on the eastern edge of an approximately 880-acre critical habitat unit for Monterey spineflower and represents approximately 0.001 percent of the unit. Regardless, the temporary impacts to Monterey spineflower critical habitat are considered significant. No permanent impacts to critical habitat are anticipated because the construction corridor would be regraded and revegetated to its preconstruction condition after construction.

Implementation of the following mitigation measures would reduce temporary impacts to sensitive communities and critical habitat resulting from installation of the Transmission Main to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants), 4.6-1n (Habitat Mitigation and Monitoring Plan), 4.6-2a (Consultation with Local Agencies and the California Coastal Commission regarding Environmentally Sensitive Habitat Areas)**, and **4.6-2b (Avoid, Minimize and Compensate for Construction Impacts to Sensitive Communities)**. As summarized above in the impact discussion for the subsurface slant wells, these measures

would address temporary impacts to sensitive natural communities and critical habitat by requiring implementation of general and specific protective measures.

Transfer Pipeline

The Transfer Pipeline is discussed in Section 3.4.3.5 of Chapter 3, Project Description. Construction of the Transfer Pipeline would take approximately 6 months to complete.

Sensitive Natural Communities. The segment of the Transfer Pipeline located west of General Jim Moore Boulevard would be installed within the road right-of-way and within developed residential areas. No sensitive communities were observed along this segment during reconnaissance-level surveys conducted for the proposed project. The western terminus of the Transfer Pipeline occurs within the Coastal Zone and would be subject to the City of Seaside Local Coastal Plan. However, the western terminus of the Transfer Pipeline is developed and does not support vegetation communities that may be considered ESHA.

The segment of the Transfer Pipeline located east of General Jim Moore Boulevard, between General Jim Moore Boulevard and the Terminal Reservoir/ASR Pump Station site, passes through central maritime chaparral, a sensitive community. As described in Section 4.6.1.4 Vegetation Communities and Habitat Types, the central maritime chaparral at this site includes a mosaic of disturbed and undisturbed areas with most of the disturbed areas located adjacent to General Jim Moore Boulevard and existing access roads.

Depending on final pipeline design, construction of the Transfer Pipeline could temporarily impact maritime chaparral on the east side of General Jim Moore Boulevard. Additionally, central maritime chaparral adjacent to the construction area could be inadvertently impacted by construction worker foot traffic outside of the construction area or trash or debris left behind following construction. Temporary impacts to maritime chaparral would be considered significant. There are no anticipated permanent impacts to maritime chaparral from installation of the Transfer Pipeline.

Implementation of the following mitigation measures would reduce impacts to sensitive communities at this site to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures), 4.6-1n (Habitat Mitigation and Monitoring Plan),** and **4.6-2b (Avoid, Minimize and Compensate for Construction Impacts to Sensitive Communities)**. As summarized above in the impact discussion for the subsurface slant wells, these measures would address impacts to sensitive natural communities by requiring implementation of general and specific protective measures.

Critical Habitat. No critical habitat occurs within the proposed Transfer Pipeline alignment. The closest critical habitat to this pipeline alignment is Monterey spineflower critical habitat located approximately 750 feet east of the proposed pipeline alignment. Therefore, no impact to critical habitat would result and no mitigation is necessary.

Monterey Pipeline

The Monterey Pipeline is described in Section 3.4.3.7 of Chapter 3, Project Description. Construction of the Monterey Pipeline would take approximately 12 months to complete.

Sensitive Natural Communities. Central dune scrub, coast live oak woodland, and riparian woodland and scrub, all sensitive communities, occur along the Monterey Pipeline alignment. Central dune scrub along this alignment includes two dune restoration areas located in the city of Monterey; coast live oak woodland occurs in Monterey adjacent to the Naval Postgraduate School; and riparian woodland and scrub occurs at Laguna del Rey. These sensitive natural communities are mostly surrounded by developed or urbanized areas and are isolated from larger expanses of natural habitat. Portions of the central dune scrub, coast live oak woodland, and riparian woodland and scrub along the Monterey Pipeline alignment are in the Coastal Zone. Riparian woodland and scrub within the Coastal Zone may be considered ESHA under the Seaside Local Coastal Program and the CCC. Central dune scrub and coast live oak woodland within the Coastal Zone may be considered ESHA under the City of Monterey Del Monte Beach Local Coastal Program and City of Monterey Harbor Local Coastal Program and the CCC.

Depending on final pipeline design, construction of the Monterey Pipeline could temporarily impact central dune scrub, coast live oak woodland, and riparian woodland and scrub. Additionally, these sensitive communities, even if located outside of but adjacent to the construction disturbance area, could be inadvertently impacted by construction worker foot traffic outside of the construction area or by trash and debris left behind following construction. Temporary impacts to these sensitive communities are potentially significant. There are no anticipated permanent impacts to central dune scrub, coast live oak, or riparian woodland and scrub from installation of the Monterey Pipeline.

Implementation of the following mitigation measures would reduce temporary impacts to sensitive communities along the Monterey Pipeline alignment to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (Implement General Avoidance and Minimization Measures)**, **4.6-1n (Habitat Mitigation and Monitoring Plan), 4.6-2a (Consultation with Local Agencies and the California Coastal Commission regarding Environmentally Sensitive Habitat Areas)**, and **4.6-2b (Avoid, Minimize and Compensate for Construction Impacts to Sensitive Communities)**. As summarized above in the impact discussion for the subsurface slant wells, these measures would address impacts to sensitive natural communities by requiring implementation of general and specific protective measures.

Critical Habitat. No critical habitat occurs within the Monterey Pipeline alignment. The closest critical habitat is western snowy plover critical habitat is located at distances ranging between 600 and 2,000 feet west of the Monterey Pipeline alignment. Installation of the pipeline would not impact critical habitat. No impact would result and no mitigation is necessary.

ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin

The proposed ASR facilities and improvements are described in Chapter 3, Project Description, Section 3.4.4. These facilities include the ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin. A discussion of sensitive natural communities and critical habitat at the Terminal Reservoir/ASR Pump Station site is provided separately below.

Sensitive Natural Communities. The sensitive natural communities that occur at the various ASR facility sites are coast live oak woodland, coastal sage scrub, and central maritime chaparral. In the vicinity of these proposed facility sites, these communities occur on sandy soils and are dominated by native species. These proposed facilities would be located outside of the Coastal Zone and would not be subject to the Coastal Act.

Oak woodland occurs at the proposed ASR injection/extraction wells (ASR-5 and ASR-6 Wells) and ASR Settling Basin sites. The ASR-5 and ASR-6 Wells would each be housed in a 900-square-foot concrete pump house. The 4,800-square-foot ASR Setting Basin would be located between ASR-5 Well and ASR-6 Well sites. Implementation of the ASR-5 and ASR-6 Wells and the ASR Settling Basin would likely result in the permanent loss of oak woodland. The permanent loss of oak woodland would be a significant impact. However, implementation of the mitigation measures prescribed below in the discussion of impacts to critical habitat would reduce the impact to a less-than-significant level.

Depending on final pipeline design, installation of the ASR Pump-to-Waste Pipeline and ASR Conveyance Pipelines may temporarily impact oak woodland and coast sage scrub. In addition, the flexible pipeline that would temporarily be placed on top of ground to convey water produced during development of the ASR-5 and ASR-6 Wells may temporarily impact central maritime chaparral. Any sensitive natural communities adjacent to ASR facilities could also be indirectly impacted during construction from accidental foot traffic or equipment use outside of the construction boundary. Temporary impacts to of oak woodland, coast sage scrub, and central maritime chaparral vegetation communities are considered significant.

Implementation of the following mitigation measures would reduce impacts to sensitive communities at the ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin sites to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures) 4.6-1n (Habitat Mitigation and Monitoring Plan),** and **4.6-2b (Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities)**. As summarized above in the impact discussion for the subsurface slant wells, these measures would address impacts to sensitive natural communities by requiring implementation of general and specific protective measures.

Critical Habitat. No critical habitat occurs within the ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin sites. Monterey spineflower

critical habitat occurs approximately 50 feet east of the project area boundary and east of the intersection of San Pablo Avenue and General Jim Moore Boulevard, near the natural depression where the water produced during development of the ASR-5 and ASR-6 Wells would be conveyed to and percolated into the ground. Construction of these ASR facilities would remain outside of critical habitat and would not impact critical habitat. No impact would result and no mitigation is necessary.

Terminal Reservoir/ASR Pump Station

The proposed Terminal Reservoir and ASR Pump Station are described in Chapter 3, Project Description, Sections 3.4.3.6 and 3.4.4.2.

Sensitive Natural Communities. Central maritime chaparral, a sensitive community, occurs throughout the Terminal Reservoir/ASR Pump Station site. At the Terminal Reservoir/ASR Pump Station site this community exists as a mosaic of disturbed and non-disturbed variations, with most of the disturbed areas located near General Jim Moore Boulevard and adjacent to existing access roads within the former Ford Ord military base. The site is outside of the Coastal Zone and would not be subject to the Coastal Act.

Installation of the approximately 1.8-acre concrete pad for the Terminal Reservoir and ASR Pump Station would result in the permanent loss of 1.8 acres of central maritime chaparral and could temporarily impact up to 5.2 acres of additional central maritime chaparral during construction. Additionally, central maritime chaparral located outside of the Terminal Reservoir/ASR Pump Station construction disturbance area could be inadvertently impacted by construction worker foot traffic or trash or debris left behind following construction. The permanent and temporary impacts to central maritime chaparral would be significant. However, with implementation of the mitigation measures prescribed in the discussion of critical habitat, below, impacts to sensitive natural communities during construction of Terminal Reservoir an ASR Pump Station would be reduced to a less-than-significant level.

Critical Habitat. Monterey spineflower critical habitat is not located within the Terminal Reservoir/ASR Pump Station site; however, it is located immediately adjacent to the site. Although construction at the Terminal Reservoir/ASR Pump Station would not directly impact critical habitat, the Monterey spineflower critical habitat abutting the Terminal Reservoir/ASR Pump Station site to the east could be inadvertently impacted by worker traffic or construction related-trash, which would be a significant impact.

Impacts to sensitive natural communities and critical habitat associated with construction of the Terminal Reservoir and ASR Pump Station would be reduced to a less-than-significant level with implementation of the following mitigation measures: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1e (Avoidance and Minimization Measures for Special-status plants), 4.6-1n (Habitat Mitigation and Monitoring Plan),** and **4.6-2b (Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities)**. As

summarized above in the impact discussion for the subsurface slant wells, these measures would address impacts to sensitive natural communities and critical habitat by requiring implementation of general and specific protective measures.

Valley Greens Pump Station

The proposed Valley Greens Pump Station is described in Section 3.4.3.8 of Chapter 3, Project Description. Construction would take approximately two months to complete.

Sensitive Natural Communities. Both site options for the Valley Greens Pump Station are located in developed and/or disturbed areas and do not contain any sensitive natural communities. These sites are outside of the Coastal Zone and would not be subject to the Coastal Act. No impact to sensitive natural communities would result. No mitigation is necessary.

Critical Habitat. Critical habitat for California red-legged frog extends along most of the Carmel River Valley. Valley Greens Pump Station Site Option 1 is located within California red-legged frog critical habitat. Valley Greens Pump Station Site Option 2 is located outside of, and approximately 0.4 mile west, of California red-legged frog critical habitat.

The Federal Register listing notice for California red-legged frog (75 FR 51) defines primary constituent elements for this species as:

1. Aquatic breeding habitat, which is described as standing bodies of fresh water including streams, pools, and other ephemeral or permanent water bodies;

2. Non-breeding aquatic and riparian habitat, which is described as freshwater pond or stream habitats that may not hold water long enough for the species to complete its life cycle, but could provide for shelter, foraging, predator avoidance, and aquatic dispersal of frogs;

3. Upland habitat, which is defined as upland areas adjacent to breeding or non-breeding aquatic habitat including various vegetation types such as grassland, woodland, forest, wetland, or riparian areas that provide shelter, forage, and predator avoidance for frogs. Upland habitat should include boulders, rocks and organic debris, small mammal burrows, or moist leaf letter; and

4. Dispersal habitat, which is defined as accessible upland or riparian habitat within and between occupied or previously occupied sites located within 1 mile of each other. Dispersal habitat does not include moderate- to high-density urban or industrial developments with large expanses of asphalt or concrete, or other areas that do not contain features identified in 1, 2, or 3 above.

The Valley Greens Pump Station at site Option 2 is located at a great enough distance (0.4 mile) from California red-legged frog critical habitat that it would not impact this critical habitat. Construction of the Valley Greens Pump Station at site Option 1 would occur within California red-legged frog critical habitat. However, site Option 1 consists of an existing graveled parking lot with ruderal vegetation bordering the edge of the parking lot and does not contain California red-legged frog primary constituent elements (such as aquatic habitat, small mammal burrows,

etc.). Therefore, no impact to critical habitat would result from construction of the Valley Greens Pump Station at either site. No mitigation is necessary.

Ryan Ranch-Bishop Interconnection Improvements and Main System-Hidden Hills Interconnection Improvements

The proposed Ryan Ranch–Bishop Interconnection Improvements and Main System-Hidden Hills Interconnection Improvements are described in Section 3.4.3.9 of Chapter 3, Project Description.

Sensitive Natural Communities. The majority of the Ryan Ranch-Bishop Interconnection Improvements site is located within road right-of-ways, although a small extent of non-native grassland also occurs within the project area. The Main System-Hidden Hills Interconnection Improvements is located entirely within road right-of-ways. Neither of these sites contains sensitive natural communities. These sites are outside of the Coastal Zone and would not be subject to the Coastal Act. Therefore, no impact to sensitive natural communities would result and no mitigation is necessary.

Critical Habitat. No critical habitat occurs within the Ryan Ranch-Bishop Interconnection Improvements site. The closest critical habitat to this site is Monterey spineflower critical habitat located approximately 0.7 mile to the north and California red-legged frog critical habitat located approximately 0.9 mile to the south. Due to the distance between the anticipated construction disturbance area for the Ryan Ranch-Bishop Interconnection Improvements and the critical habitat, no impact would result from the construction of these improvements, and no mitigation is necessary.

The Main System-Hidden Hills Interconnection Improvements site is located within California red-legged frog critical habitat. However, because all construction activities would occur within paved surfaces that do not contain the primary constituent elements for California red-legged frog described above, there would be no impact on critical habitat from construction at the Main System-Hidden Hills Interconnection Improvements site. No mitigation is necessary.

Land Use Plan & Policy Consistency

In addition to the physical impacts described above, as noted in **Table 4.6-2**, MPWSP construction could conflict with applicable land use plans, policies, and ordinances related to riparian habitat or sensitive natural communities that were adopted for the purpose of avoiding or mitigating an environmental effect. Specifically, the project could conflict with City of Marina General Plan Policies 4.112, 4.114, 4.116, 4.118, 4.119, and 2.10; City of Marina Local Coastal Land Use Plan Policies 8, 19, 25, 26 and Planning Guideline entitled Rare and Endangered Species: Habitat Protection; City of Monterey Del Monte Beach Land Use Plan Policies 1, 2, and 3; City of Monterey: Monterey Harbor Land Use Plan Policy 3.l; Sand City Local Coastal Program Land Use Plan Policies 4.3.19, 4.3.20, 4.3.22, and 4.3.23; City of Seaside Local Coastal Program Land Use Plan Policies NCR-CZ 1.1.C, NCR-CZ 1.2.1A, NCR-CZ 1.2.B, LUD-CZ 3.1A, and LUD-CZ 3.1B; Seaside General Plan Policies COS-4.1 and COS-4.3; Monterey County Greater Monterey Peninsula Area Plan Policy GMP-3.9; Monterey County General Plan Policies OS-5.1, OS-5.2, OS-5.4, OS-5.5, OS-5.6, OS-5.11, OS-5.13, OS-5.16, and OS-5.17;

Monterey County North County Land Use Plan Policies 2.3.2.1, 2.3.2.2, 2.3.2.3, 2.3.2.4, 2.3.2.5, 2.3.2.6, 2.3.2.8, 2.3.2.9, and 2.3.3.C2 and Key Policy 4.3.4; Ford Ord Reuse Plan Biological Resources Policies A-4, and C-1; and California Coastal Act Section 30240, which were established to avoid or mitigate impacts to riparian habitat, critical habitat, and sensitive natural communities. As discussed in the preceding paragraphs, **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1d (Avoidance and Minimization Measures for Western Snowy Plover)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1n (Habitat Mitigation and Monitoring Plan)**, **4.6-2a (Consultation with Local Agencies and the California Coastal Commission regarding Environmentally Sensitive Habitat Areas)**, and **4.6-2b (Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities)** would reduce potential impacts to riparian habitat, critical habitat, and sensitive natural communities by requiring measures to avoid, minimize, or mitigate impacts to these habitats and communities. Therefore, with these measures implemented, the MPWSP would be brought into conformance with the above-noted policies, and the MPWSP (with these mitigation measures) would not be inconsistent with any of the foregoing plans, policies or ordinance.

Impact Conclusion

Construction of the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, and Terminal Reservoir/ASR Pump Station has the potential to result in direct and/or indirect impacts to riparian habitat, sensitive natural communities, and/or critical habitat. Implementation of the proposed mitigation measures would reduce impacts to riparian habitat, sensitive natural communities, and/or critical habitat at these sites to less than significant. Construction of the MPWSP Desalination Plant, Salinas Valley Return Pipeline and Brine Discharge Pipeline, would result in less than significant impacts to riparian habitat, sensitive natural communities, and critical habitat, The Valley Greens Pump Station (both options), and Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements would not impact riparian habitat, sensitive natural communities, or critical habitat. Overall, the impact to riparian habitat, sensitive natural communities, and critical habitat, would be reduced to a less than significant level with implementation of the prescribed mitigation.

Mitigation Measures

Mitigation Measure 4.6-1a applies to the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, and Terminal Reservoir/ASR Pump Station.

> **Mitigation Measure 4.6-1a: Retain a Lead Biologist to Oversee Implementation of Protective Measures.**
>
> (See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1b applies to the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, and Terminal Reservoir/ASR Pump Station.

Mitigation Measure 4.6-1b: Construction Worker Environmental Awareness Training and Education Program.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1c applies to the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, and Terminal Reservoir/ASR Pump Station.

Mitigation Measure 4.6-1c: General Avoidance and Minimization Measures.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1d applies to the subsurface slant wells and Source Water Pipeline.

Mitigation Measure 4.6-1d: Protective Measures for Western Snowy Plover.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1e applies to the Transmission Main and Terminal Reservoir/ASR Pump Station

Mitigation Measure 4.6-1e: Avoidance and Minimization Measures for Special-status Plants.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1n applies to the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, Terminal Reservoir/ASR Pump Station, and ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin.

Mitigation Measure 4.6-1n: Habitat Mitigation and Monitoring Plan.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-2a applies to the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, and Monterey Pipeline.

Mitigation Measure 4.6-2a: Consultation with Local Agencies and the California Coastal Commission regarding Environmentally Sensitive Habitat Areas.

Some parts of the project area occur within the Coastal Zone and development within the Coastal Zone would require a Coastal Development Permit. Prior to the issuance of project permits, CalAm and/or its contractor shall provide evidence to the CPUC that they have submitted a Coastal Development Permit application to the California Coastal Commission and/or local jurisdictions, through an applicable Local Coastal Plan, for a project that

conforms to the principal Coastal Act policy pertaining to ESHA (PRC Section 30240), which provides that " a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas" and "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."

Through the permit application process, CalAm shall coordinate with the CCC or local jurisdiction to determine the extent of ESHA within or adjacent (within 100 feet) to portions of the proposed project within the Coastal Zone and ensure that the project conforms to the ESHA policy as defined above. CalAm will consult with the CCC or local jurisdiction and obtain the necessary permit(s) in order to proceed with the MPWSP. The CCC or local agency would authorize the project if it conforms to ESHA policies, along with other policies of the Coastal Act.

Mitigation Measure 4.6-2b applies to the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, and Terminal Reservoir/ASR Pump Station.

Mitigation Measure 4.6-2b: Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities.

The following measures shall be implemented to reduce direct impacts to sensitive natural communities and the special-status species that utilize these sensitive communities. To the extent feasible, the construction contractor(s) shall implement the following avoidance and minimization measures:

a) Project facilities shall be sited and designed to avoid disturbance of central maritime chaparral, central dune scrub, coast live oak woodland, and riparian woodland and scrub, any areas defined as ESHA, any sensitive communities defined by local jurisdictions, and any other sensitive natural communities, including critical habitat, identified within the project area.

b) Any areas used for staging, laydown, material storage, equipment storage, job trailers, employee parking, or other project-related support activities shall be located away from jurisdictional areas, sensitive communities, and shall be protected from stormwater run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers.

c) All potential contaminants shall be stored on impervious surfaces, plastic ground covers, or in secondary containment to prevent any spills or leakage from contaminating the ground, and shall be located at least 100 feet from adjacent habitat where practicable.

d) Any spillage of pollutants or construction material shall be contained immediately in accordance with the project SWPPP. The contaminated area shall be cleaned and any contaminated materials properly disposed of. The Lead Biologist shall be notified of all spills.

e) Where direct impacts to sensitive natural communities, ESHA, or critical habitat cannot feasibly be avoided, CalAm shall implement the following measures:

i. Any temporarily impacted sensitive natural communities, including critical habitat, shall be restored to previous conditions or better at the end of construction. To the extent feasible, topsoil shall be salvaged during grading and earthmoving activities, stockpiled separately from subsoil, and protected from erosion (e.g., covered or watered). Composting additives shall be used to amend the soil, if needed, and compacted topsoil shall be properly prepared prior to reuse for post-construction restoration of temporarily disturbed areas. A minimum of 12 inches of topsoil shall be salvaged (or if there is less than 12 inches of topsoil initially, as much as practicable). Restoration shall be conducted in conformance with the terms of the Habitat Mitigation and Monitoring Plan (HMMP) prepared under Mitigation Measure 4.6-1n. Compensatory mitigation for permanent impacts to sensitive natural communities shall occur either onsite or offsite, and at a ratio of 1:1 or greater, specified in regulatory permits issued by the CCC, CDFW, or USFWS. All compensatory mitigation shall be conducted in accordance with the terms of the HMMP, as described in Mitigation Measure 4.6-1n. Where applicable, compensatory mitigation shall be developed onsite. Alternatively, subject to approval by the appropriate agencies, offsite mitigation may be developed, or credits purchased through an approved mitigation bank, or approved Habitat Conservation Plan.

Impact 4.6-3: Result in substantial adverse effects on federal wetlands, federal other waters, and/or waters of the State during construction. (*Less than Significant with Mitigation*)

As described in Sections 4.6.2, Regulatory Framework, and 4.6.1.6, Wetlands and Other Waters, waters of the U.S. include both wetlands and "other waters." Wetlands under USACE jurisdiction are defined by the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Waters of the State, per the California Water Code Section 13050 [e], are defined as any surface water or groundwater, including saline waters, within the boundaries of the state and is inclusive of waters of the U.S. In comparison, wetlands under CCC jurisdiction generally include any feature that is considered a water of the U.S. or water of the State, as well as any feature that exhibits one or more of the three wetland parameters defined by the USACE.

A formal wetland delineation has not been conducted for the project. For the purposes of this analysis, the project area was informally evaluated for the presence of waters of the U.S./waters of the State (including wetlands under CCC jurisdiction) through examination of the United States Geological Survey (USGS) topographic quadrangles containing the project area, National Wetland Inventory (NWI) maps, and reconnaissance-level field surveys conducted for the MPWSP in 2012 and 2013 (ESA, 2012; 2013). Approximately four potential wetlands/other waters have been mapped or observed within the project area boundary. The proposed project may have direct effects on these potential waters of the U.S. and/or waters of the State. Direct impacts to those wetlands could include removal of vegetation, soil, or structures and/or the

placement of fill in the wetland/other water, or hydrological modifications (i.e. altering the flow of water in or out of the wetland or water).

Waters of the U.S. and waters of the State occur offsite in close proximity to many project components and could be subject to indirect impacts as a result of project construction. Indirect impacts could occur if construction activities inadvertently extend beyond the designated construction work area, if construction worker foot traffic extends beyond the designated construction work area and into these features, and/or if trash and debris is left in the features following construction. Other indirect impacts include sedimentation as a result of increased soil erosion from grading or trenching activities and degradation of water quality from pollutants (e.g., oil, hydraulic fluid) that are conveyed by surface water runoff from the construction site to offsite waters of the U.S./waters of the State.

The discussion of project-related impacts to waters of the U.S. and/or waters of the State is organized by facility, below.

Subsurface Slant Wells

Construction of the subsurface slant wells is not expected to directly impact any waters of the U.S. or waters of the State as none occur within the subsurface slant well project area. Some potential waters of the U.S. and/or waters of the State are located in the vicinity of the northernmost slant well cluster. The CEMEX dredging pond and Pacific Ocean are located approximately 250 feet from the northernmost well cluster. Additionally, a freshwater wetland is located approximately 600 feet south of the proposed electrical control building. Due to the distances between the construction work area and these potential waters of the U.S./waters of the State, construction activities would not be expected to inadvertently extend beyond the construction work area and impact these features. Moreover, implementation of BMPs in the project-specific SWPPP would require measures to manage soil erosion and protect water quality that would avoid impacts to water quality in these potential wetlands/waters. Therefore, impacts to the CEMEX dredging pond, Pacific Ocean, and freshwater wetland during slant well construction would be less than significant and no mitigation is necessary.

The CEMEX settling ponds are located approximately 30 feet from the northernmost slant well cluster. Indirect impacts to water quality are not expected as the settling ponds are surrounded by berms and are not downgradient of the slant well construction work area. Additionally, mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP, would protect water quality. However, due to proximity, construction worker foot traffic could extend beyond the designated construction work area and into these features, which would be a significant impact.

Implementation of the following mitigation measures would be reduce the potential impact to the CEMEX settling ponds to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures), 4.6-1b (Construction Worker Environmental Awareness Training and Education Program),** and **4.6-1c (General Avoidance and Minimization Measures)**. These measures would require designation of a lead

biologist to oversee implementation of protective measures; construction worker training regarding wetlands and other waters potentially present at the site; and implementation of general protective measures, such as exclusion fencing to avoid and minimize impacts to the ponds.

MPWSP Desalination Plant

No waters of the U.S. or waters of the State exist within the 25-acre[17] MPWSP Desalination Plant site. Therefore, construction of this project component would not result in direct impacts to waters of the U.S. and/or waters of the State. The Salinas River is located about 850 feet to the north of the site and a drainage ditch is located about 250 feet north of the site. Due to the distances between the construction work area and these features, it is unlikely that construction activities would inadvertently extend beyond the construction work area and directly impact these features. Soil disturbing activities at the site could increase soil erosion and the eroded soil could migrate downgradient to the drainage ditch and the Salinas River. However, mandatory compliance with the NPDES Construction General Permit, including implementation of BMPs in the project's SWPPP, would manage soil erosion and protect water quality, thereby avoiding significant impacts to water quality in the drainage ditch and the Salinas River. Therefore, the impact to the Salinas River and the drainage ditch would be less than significant and no mitigation is necessary.

Pipelines North of Reservation Road

Source Water Pipeline. No potential waters of the U.S./waters of the State occur within the Source Water Pipeline alignment and therefore, installation of the pipeline would not result in direct impacts to potential waters of the U.S./waters of the State.

Several waters of the U.S./waters of the State occur in the vicinity of the proposed Source Water Pipeline alignment. The CEMEX dredging pond and Pacific Ocean, potential waters of the U.S./waters of the State, are located approximately 250 feet to the north and west of the western terminus of the proposed Source Water Pipeline alignment, respectively. A third feature mapped as a seasonal wetland by the NWI is located west of Lapis Road, east of Highway 1, and northeast of the CEMEX access road, approximately 250 feet west of the proposed Source Water Pipeline alignment. A fourth feature mapped as a freshwater wetland by the NWI is located south of the CEMEX access road, approximately 600 feet south of the proposed pipeline alignment. Due to the distances between the construction work area and these features, it unlikely that construction activities would inadvertently extend beyond the construction work area and impact these features. Construction-related soil erosion or the inadvertent discharge of toxic construction chemicals could result in significant adverse effects on these off-site features. However, implementation of BMPs in the project's SWPPP would manage soil erosion from the construction work area and protect water quality in these potential wetlands/waters. Therefore, the impact would be less than significant and no mitigation is necessary.

[17] As stated in Section 3.4.2 of Chapter 3, Project Description, all proposed project facilities would be constructed on the upper terrace (25 acres) of the 46-acre parcel.

The CEMEX settling ponds are located approximately 30 feet north of the western terminus of the proposed Source Water Pipeline alignment. Indirect impacts to water quality related to soil erosion and potential releases of toxic construction chemicals are not expected as the settling ponds are surrounded by berms and are not located downgradient of the construction work area. Additionally, mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP, would protect water quality in the ponds and prevent significant impacts to water quality. However, due to proximity, construction worker foot traffic could extend into these features, which would be a significant impact.

Implementation of the following mitigation measures would reduce the significant impact to the CEMEX settling ponds to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures), 4.6-1b (Construction Worker Environmental Awareness Training and Education Program),** and **4.6-1c (General Avoidance and Minimization Measures)**.

Desalinated Water Pipeline. Riparian woodland and scrub at Locke-Paddon Park is a potential water of the U.S./water of the State. Depending on the final Desalinated Water Pipeline alignment, pipeline installation activities could directly impact this feature. Direct impacts would occur if the final pipeline alignment overlapped geographically with the riparian woodland and scrub. Direct impacts to this potential water of the U.S./water of the State would be significant.

Direct impacts to this feature would be reduced to a less-than-significant level with implementation of the following mitigation measures: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures), 4.6-1b (Construction Worker Environmental Awareness Training and Education Program), 4.6-1c (General Avoidance and Minimization Measures),** and **4.6-3 (Avoid, Minimize, and or Mitigate Impacts to Wetlands)**.

Indirect impacts could occur from construction-related soil erosion and related effects on water quality. However, mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP, would avoid significant indirect impacts to water quality and no mitigation measures are required.

Salinas Valley Return Pipeline and Brine Discharge Pipeline. The Salinas Valley Return Pipeline and Brine Discharge Pipeline would have no direct impacts on waters of the U.S./waters of the State as none are located within these pipeline alignments. The Castroville Seawater Intrusion Project (CSIP) pond and two additional industrial ponds at the Monterey Regional Water Pollution Control Agency (MRWPCA) Regional Wastewater Treatment Plant are located adjacent to the eastern terminus of the two pipelines and are mapped as freshwater ponds by the NWI. The MRWPCA operates these three concrete-lined, manmade, industrial ponds as part of their wastewater treatment and recycled water facilities. For this reason, this EIR assumes the ponds are not waters of the U.S. or waters of the State. No direct impact to waters of the U.S. or waters of the State would occur from installation of the Salinas Valley Return Pipeline and Brine Discharge Pipeline.

In addition, mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP, would prevent significant impacts to water quality in any offsite downgradient receiving waters of the U.S./waters of the State. Therefore, the overall impact to waters of the U.S./waters of the State during installation of the Salinas Valley Return Pipeline and Brine Discharge Pipeline would be less than significant.

Pipelines and Other Conveyance Facilities South of Reservation Road

Transmission Main. As noted in Section 4.6.1.6, a small seasonal wetland (approximately 400 square feet) was observed in a roadside depression along the Transmission Main alignment south of Reservation Road between Del Monte Boulevard and Marina Drive (ESA, 2013). The seasonal wetland is dominated by sedge (*Carex* sp.) and non-native annual grasses. This wetland may be considered a water of the U.S. and/or water of the State. Depending on final pipeline alignment and design, installation of the Transmission Main could impact this seasonal wetland through direct removal. Direct impacts to potential waters of the U.S./waters of the State associated with installation of the Transmission Main would be significant. However, implementation of **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures), 4.6-1b (Construction Worker Environmental Awareness Training and Education Program), 4.6-1c (General Avoidance and Minimization Measures),** and **4.6-3 (Avoid, Minimize, and or Mitigate Impacts to Wetlands)** would reduce these direct impacts to a less-than-significant level. Mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP, would prevent significant impacts to water quality in the roadside depression.

Other potential waters of the U.S./ waters of the State are located between 400 feet and 1,500 feet west of the Transmission Main alignment. A railroad berm separates the proposed Transmission Main and the potential waters. The berm serves as a barrier for surface water runoff and would minimize the potential for indirect water quality impacts from construction. Additionally, mandatory compliance with the NPDES Construction General Permit would avoid significant impacts on the water quality. Therefore, construction of the Transmission Main would not be expected to impact these offsite potential waters of the U.S./waters of the State.

Transfer Pipeline. No potential waters of the U.S. or waters of the State were observed within or immediately adjacent to the Transfer Pipeline alignment during reconnaissance-level field surveys conducted for the proposed project and no potential waters were identified by the NWI. Mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP, would avoid adverse impacts on water quality to any offsite downgradient receiving U.S./waters of the State during construction. Therefore, the impact to waters of the U.S./waters of the State during installation of the Transfer Pipeline would be less than significant.

Monterey Pipeline. Riparian woodland and scrub occurs within the Monterey Pipeline alignment in association with Laguna del Rey and is a potential water of the U.S./water of the State. Depending on final project design, construction of the Monterey Pipeline could temporarily directly impact riparian woodland associated with Laguna del Rey through direct removal. Direct impacts to waters of the U.S./waters of the State would be significant. Implementation of

Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures), 4.6-1b (Construction Worker Environmental Awareness Training and Education Program), 4.6-1c (General Avoidance and Minimization Measures), and **4.6-3 (Avoid, Minimize, and or Mitigate Impacts to Wetlands)** would reduce direct impacts to waters of the U.S./waters of the State to a less-than-significant level.

Construction-related soil erosion and inadvertent releases of toxic construction chemicals could indirectly impact water quality in the riparian woodland and scrub. However, mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP, would prevent significant impacts on the water quality.

Offsite waters of the U.S./waters of the State—Laguna Grande, Del Monte Lake, and El Estero Lake—are located within 100 feet from the proposed Monterey Pipeline alignment. Soil disturbing activities at the site could result in soil erosion that could migrate to these features. However, as stated above, mandatory compliance with the NPDES Construction General Permit and implementation of the project SWPPP would avoid adverse impacts on the water quality of these features. Construction activities would not extend beyond the anticipated construction work area and into these features as these features are located on the opposite side of a major road (Del Monte Avenue) from the proposed Monterey Pipeline alignment. Therefore, impacts to these potential offsite waters of the U.S./waters of the State would be less than significant and no mitigation is necessary.

ASR-5 and ASR-6 Wells

The natural depression in the former Fort Ord military base where CalAm proposes to percolate the water produced during development of the ASR-5 and ASR-6 Wells is mapped by the NWI as a freshwater pond. This depression is located within upland central maritime chaparral and is not expected to be wetland. Additionally, because water produced during development of the ASR-1, ASR-2, ASR-3, and ASR-4 Wells[18] was percolated into this same depression in accordance with regulatory requirements, this EIR analysis assumes the depression is not a water of the U.S. or a water of the State.

The proposed discharge of water produced during development of ASR-5 and ASR-6 Wells to the natural depression would be conducted in accordance with the *General Waiver of WDRs for Specific Types of Discharges* (Resolution R3-2008-0010) (General Waiver). Mandatory compliance with the conditions of the General Waiver would prevent significant impacts to water quality. The water would fall under the category of "Water Supply Well Drilling Muds" in the General Waiver. The General Waiver prohibits discharges within 100 feet of stream, bodies of water, and wetlands, as well as within streamside riparian corridors. As stated in the General Waiver, such discharges must be spread over an undisturbed, vegetated area capable of absorbing the water and filtering solids in the discharge, and spread in a manner that prevents a direct discharge to surface waters. The General Waiver prohibits discharges containing oil or grease and

[18] Construction of the ASR-1 and ASR-2 Wells (Phase I of the Seaside Groundwater Basin ASR System) and ASR-3 and ASR-4 Wells (Phase II) was completed in 2007 and 2014, respectively.

requires that the pH of the discharge be between 6.5 and 8.3. Mandatory compliance with the General Waiver would prevent direct impacts to waters of the U.S./waters of the State and significant impacts to water quality. Thus, the disposal of the ASR well development water would not result in substantial adverse effects on waters of the U.S./waters of the State.

With respect to general construction activities associated with the ASR-5 and ASR-6 Wells, mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP, would prevent significant impacts to water quality in any offsite downgradient receiving waters of the U.S./waters of the State. Therefore, the overall impact to waters of the U.S./waters of the State during construction of the ASR-5 and ASR-6 Wells would be less than significant.

ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Setting Basin

There are no potential waters of the U.S./waters of the State along the alignment for the ASR Conveyance Pipelines and ASR Pump-to-Waste Pipeline, or at the ASR Settling Basin site. However, one potential water of the U.S./water of the State occurs west of General Jim Moore Boulevard and south of McClure Way, approximately 650 feet west of the proposed alignment for the ASR Conveyance Pipelines and ASR Pump-to-Waste Pipeline. The project's distance from this feature ensures that construction activities would not impact it. Another potential water of the U.S./water of the State occurs northeast of the intersection of General Jim Moore Boulevard and Coe Avenue, approximately 800 feet east of and upgradient from the proposed ASR Conveyance Pipelines and ASR Pump-to-Waste Pipeline. Because this feature is located at great distance and upgradient, there is no potential for construction-related runoff to discharge into this feature. Furthermore, mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP, would avoid adverse impacts to offsite waters of the U.S./waters of the State. Therefore, impacts to these potential waters of the U.S./waters of the State would be less than significant and no mitigation is necessary.

Terminal Reservoir/ASR Pump Station

A wetland is mapped by the NWI within the proposed 1.8-acre Terminal Reservoir/ASR Pump Station footprint. This wetland is identified by the NWI as a temporary flooded palustrine emergent wetland and may be considered a water of the U.S./water of the State. It is anticipated that construction of the Terminal Reservoir and ASR Pump Station would result in direct removal of this feature, a significant impact.

Implementation of **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures), 4.6-1b (Construction Worker Environmental Awareness Training and Education Program), 4.6-1c (General Avoidance and Minimization Measures),** and **Mitigation Measure 4.6-3 (Avoid, Minimize, and or Mitigate Impacts to Wetlands)** would reduce potential impacts to waters of the U.S./waters of the State to a less-than-significant level. Construction-related soil erosion and inadvertent releases of toxic construction chemicals could adversely affect water quality in the feature. Mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP would avoid indirect impacts on the water quality of the potential wetland/water.

Another potential water of the U.S./water of the State occurs approximately 800 feet east of the Terminal Reservoir/ASR Pump Station site. The project's distance from this feature ensures that construction activities would not impact it. Moreover, mandatory compliance with the NPDES Construction General Permit, including implementation of BMPs in the project's SWPPP would avoid impacts to water quality in the potential wetland/water and distance makes it unlikely that construction activities would inadvertently extend into the wetland/water feature. Therefore, impacts to the off-site potential water of the U.S./water of the State would be less than significant and no mitigation is necessary.

Valley Greens Pump Station

No potential waters of the U.S./waters of the State were observed within either Valley Greens Pump Station site option. Drainages are located at least 500 feet from the sites. The sites distance from these features ensures that construction activities would not impact them. Mandatory compliance with the NPDES Construction General Permit, including implementation of BMPs in the project's SWPPP, would avoid impacts to water quality in the potential wetland/water. Therefore, impacts to the off-site potential waters of the U.S./waters of the State would be less than significant and no mitigation is necessary.

Ryan Ranch-Bishop Interconnection Improvements and Main System-Hidden Hills Interconnection Improvements

No waters of the U.S./waters of the State occur within the Main System-Hidden Hills Interconnection Improvements. A wetland drainage is located approximately 500 feet downslope of the majority of the Main System-Hills Interconnection Improvements site, but appears to run either beneath or adjacent to the Middle Tierra Grande Booster Station (since it was not observed during reconnaissance level surveys of the site in 2013). This wetland feature could be considered a water of the U.S./water of the State. Construction activities at the Middle Tierra Grande Booster Station, which would occur below ground, could result in direct alteration or removal of the existing potential wetland drainage, which would be a significant impact.

The NWI has mapped a wetland drainage that appears to pass through a culvert underneath Lower Ragsdale Drive near the intersection of Lower Ragsdale Drive and Ryan Court within the Ryan Ranch-Bishop Interconnection Improvements site. This drainage may be considered a water of the U.S./waters of the State. Depending on final pipeline alignment and design, installation of the pipeline at this site could result in direct alteration or removal of this feature, which would be a significant impact.

Implementation of **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures), 4.6-1b (Construction Worker Environmental Awareness Training and Education Program), 4.6-1c (General Avoidance and Minimization Measures)**, and **4.6-3 (Avoid, Minimize, and or Mitigate Impacts to Wetlands)** would reduce potential impacts to waters of the U.S./waters of the State to less than significant. These measures would address impacts to waters of the U.S/waters of the State by requiring general and specific measures to avoid and minimize impacts to waters of the U.S/waters of the State. Construction-related soil erosion and inadvertent releases of toxic construction chemicals could adversely

affect water quality in these features. Mandatory compliance with the NPDES Construction General Permit, including implementation of the project SWPPP would avoid adverse impacts on the water quality of the wetland/water features.

Land Use Plan & Policy Consistency

In addition to the physical impacts described above, as noted in **Table 4.6-2**, MPWSP construction could conflict with applicable land use plans, policies, and ordinances related to waters of the U.S./waters of the State that were adopted for the purposes of avoiding or mitigating an environmental effect. Specifically, the project could conflict with the City of Marina General Plan Policies 4.112, 4.114, 4.116, 4.118, 4.119, 4.121, and 2.10; City of Marina Local Coastal Land Use Plan Policies 24 and 26 and Planning Guidelines entitled Rare and Endangered Species: Habitat Protection and Wetlands Protection; City of Monterey Del Monte Beach Land Use Plan Policy 3; Sand City Local Coastal Program Land Use Plan Policy 4.3.22; City of Seaside Local Coastal Program Land Use Plan Policies NCR-CZ 1.1.C, NCR-CZ 1.2.A, NCR-CZ 1.2.B, NCR-CZ 1.3.A, NCR-CZ 1.3.B, LUD-CZ 3.1.A, LUD-CZ 3.1B; Seaside General Plan Policies COS-4.1 and COS-4.2; Monterey County General Plan Policies OS-5.16 and OS-5.18; Monterey County North County Land Use Plan Policy 2.3.2.1, 2.3.2.2, 2.3.2.3, 2.3.2.4, 2.3.2.5, 2.3.2.6, 2.3.2.8, 2.3.3.B4, 2.3.3.B5; Monterey County North County Land Use Plan Key Policy 4.3.4; Fort Ord Reuse Plan Biological Resources Policy A-2; and the California Coastal Act Section 30233, which were established to avoid or mitigate waters of the U.S./waters of the State impacts. As discussed in the preceding paragraphs, **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, and **4.6-3 (Avoid, Minimize, and or Mitigate Impacts to Wetlands)** would reduce potential impacts to waters of the U.S./waters of the State by requiring measures to avoid, minimize, or mitigate impacts to these features. Therefore, with these measures implemented, the MPWSP would be brought into conformance with the above-noted policies, and the MPWSP (with implementation of the proposed mitigation measures) would not be inconsistent with the foregoing plans, policies, and ordinances.

Impact Conclusion

For all project facilities, mandatory compliance with the NPDES Construction General Permit, including implementation of the project-specific SWPPP, would ensure the construction-related impact to water quality in U.S./waters of the State related to increased soil erosion and/or inadvertent releases of toxic construction chemicals is less than significant.

Implementation and construction of the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Monterey Pipeline, Terminal Reservoir/ASR Pump Station, Main System-Hidden Hills Interconnection Improvements, and Ryan Ranch-Bishop Interconnection Improvements, as discussed above, have the potential to significantly impact waters of the U.S./waters of the State as a result of placement of fill, removal of the water/wetland feature, and/or the potential for construction activities or construction worker foot traffic to extend beyond the designated construction work area. For these facilities,

implementation of the proposed mitigation measures would reduce impacts to waters of the U.S./waters of the State to less than significant.

The impact is less than significant for the MPWSP Desalination Plant, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Transfer Pipeline, Valley Greens Pump Station [both site options], ASR Conveyance Pipelines, ASR-5 and ASR-6 Wells, ASR Pump-to-Waste Pipeline, and ASR Setting Basin.

Mitigation Measures

Mitigation Measure 4.6-1a applies to the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Monterey Pipeline, Terminal Reservoir/ASR Pump Station, Main System-Hidden Hills Interconnection Improvements, and Ryan Ranch-Bishop Interconnection Improvements.

Mitigation Measure 4.6-1a: Retain a Lead Biologist to Oversee Implementation of Protective Measures.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1b applies to the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Monterey Pipeline, Terminal Reservoir/ASR Pump Station, Main System-Hidden Hills Interconnection Improvements, and Ryan Ranch-Bishop Interconnection Improvements.

Mitigation Measure 4.6-1b: Construction Worker Environmental Awareness Training and Education Program.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1c applies to the subsurface slant wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main, Monterey Pipeline, Terminal Reservoir/ASR Pump Station, Main System-Hidden Hills Interconnection Improvements, and Ryan Ranch-Bishop Interconnection Improvements.

Mitigation Measure 4.6-1c: General Avoidance and Minimization Measures.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-3 applies to Desalinated Water Pipeline, Transmission Main, Monterey Pipeline, Terminal Reservoir/ASR Pump Station, Main System-Hidden Hills Interconnection Improvement, and Ryan Ranch-Bishop Interconnection Improvement.

Mitigation Measure 4.6-3: Avoid, Minimize, and or Mitigate Impacts to Wetlands.

1. A jurisdictional wetland delineation shall be conducted to determine the extent of waters of the U.S. and waters of the State within the project component footprints and anticipated construction disturbance area.

2. The proposed project shall be designed to avoid and/or minimize direct impacts to wetlands and/or waters under the jurisdiction of the U.S. Army Corps of Engineers,

Regional Water Quality Control Board, California Department of Fish and Wildlife, and/or the California Coastal Commission to the extent feasible.

3. Where disturbance to jurisdictional waters cannot be avoided, compensation shall be provided at a 1:1 or greater ratio as specified in project permits issued by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, and/or the California Coastal Commission. Where applicable, compensation shall be detailed on a project-specific basis and shall include development of a Wetland Mitigation and Monitoring Plan (WMMP), which shall be developed prior to the start of construction and in coordination with permit applications and/or conditions. Offsite mitigation credits may be purchased at an approved mitigation bank; if no banks are available, then alternative mitigation may be achieved through payment of in-lieu fees or development of project specific on-site or off-site mitigation, though these options may require different mitigation ratios. At a minimum, the WMMP shall include:

    a. Baseline information, including a summary of the findings in any other recent wetland delineations applicable to the project disturbance area;

    b. Anticipated habitat enhancements to be achieved through compensatory actions;

    c. Monitoring methods and schedule;

    d. Performance and success criteria for wetland creation and/or enhancement.

    e. Roles and responsibilities for mitigation funding, implementation, maintenance, monitoring, and reporting.

Impact 4.6-4: Conflict with local tree ordinances. (*Less than Significant with Mitigation*)

In general, the types of trees protected by local tree ordinances vary by jurisdiction. **Table 4.6-6**, below, summarizes the local plan, policy, or ordinance that regulates tree removal at each proposed facility site and describes the trees that are protected under the respective plan, policy, or ordinance. The table also includes a description of whether each proposed facility has potential to conflict with a local tree ordinance by removing or impacting a protected tree.

Subsurface Slant Wells

The subsurface slant wells would be located in the CEMEX mining area. The site is comprised of relatively undisturbed central dune scrub, formerly disturbed sand dunes that are slowly being occupied by native and non-native dune scrub vegetation, and unvegetated disturbed sandy soil in actively mined areas. There are no trees within the subsurface slant well site. Therefore, no impact would result and no mitigation is necessary.

Valley Greens Pump Station (Site Option 2)

One tree is located at the Valley Greens Pump Station site option 2. However it is not anticipated that the tree would require removal or that construction would occur within its dripline. Therefore, no impact is anticipated and no mitigation is necessary.

TABLE 4.6-6
APPLICABLE LOCAL PLANS, POLICIES, AND ORDINANCES RELATED TO TREE REMOVAL

Proposed Facility	Jurisdiction	Local Plans, Policies, and Ordinances Related to Tree Removal	Protected Trees	Potential to Conflict with Tree Ordinance
Subsurface Slant Wells	City of Marina (coastal zone)	City of Marina Zoning Ordinance	A tree removal permit is required to be obtained from the city for any tree that shall be removed or relocated.	No Conflict. There are no trees at the subsurface slant well site.
MPWSP Desalination Plant	Monterey County (coastal zone)	Monterey County Zoning Ordinance (North County Land Use Plan Local Coastal Program)	The following trees are protected under this ordinance (tree diameters are measured 2 feet above the ground surface): • oak or madrone trees 6 inches or more in diameter • landmark oak trees (trees 24 inches or more in diameter, trees which are visually significant, historically significant, or exemplary of their species) • any oak tree removed for commercial harvesting purposes	Potential Conflict. As indicated in **Figure 3-5**, 4 to 6 cypress trees along Charles Benson Road would require removal to accommodate the proposed access driveways.
Source Water Pipeline	City of Marina (coastal zone)	City of Marina Zoning Ordinance	See above.	Potential Conflict. Although not anticipated, depending on final design, implementation of this pipeline could require tree removal or construction within the driplines of trees at the CEMEX sand mining facility and/or along Charles Benson Road.
	Monterey County (coastal zone)	Monterey County Zoning Ordinance (North County Land Use Plan Local Coastal Program)	See above.	
	Monterey County (inland)	Monterey County Zoning Ordinance (Greater Monterey Peninsula Area Plan)	The following trees are protected under this ordinance (tree diameters are measured 2 feet above the ground surface): • oak or madrone trees 6 inches or more in diameter in the areas designated as Resource Conservation; Residential; Commercial; Industrial; Industrial, Mineral Extraction; or Agricultural • landmark oak trees (trees 24 inches or more in diameter, trees which are visually significant, historically significant, or exemplary of their species) • any oak tree removed for commercial harvesting purposes	
Desalinated Water Pipeline	Monterey County (coastal zone)	Monterey County Zoning Ordinance (North County Land Use Plan Local Coastal Program)	See above.	Potential Conflict. Although not anticipated, depending on final design, implementation of this pipeline could require tree removal or construction within the driplines of trees along Charles Benson Road or Del Monte Boulevard.
	Monterey County (inland)	Monterey County Zoning Ordinance (Greater Monterey Peninsula Area Plan)	See above.	
	City of Marina (inland and coastal zone)	City of Marina Zoning Ordinance	See above.	

TABLE 4.6-6 (Continued)
APPLICABLE LOCAL PLANS, POLICIES, AND ORDINANCES RELATED TO TREE REMOVAL

Proposed Facility	Jurisdiction	Local Plans, Policies, and Ordinances Related to Tree Removal	Protected Trees	Potential to Conflict with Tree Ordinance
Brine Discharge Pipeline and Salinas Valley Return Pipeline	Monterey County (inland)	Monterey County Zoning Ordinance (Greater Monterey Peninsula Area Plan)	See above.	Potential Conflict. Although not anticipated, depending on final design, implementation of these pipelines could require tree removal or construction within the driplines of trees located along Charles Benson Road and along the MRWPCA Regional WTTP access roads.
Transmission Main	City of Marina (inland and coastal zone)	City of Marina Zoning Ordinance	See above.	Potential Conflict. Although not anticipated, depending on final design, implementation of this pipeline could require tree removal or construction within the driplines of trees located along Charles Benson Road and along Del Monte Boulevard or the TAMC right-of-way.
	Sand City (inland and coastal zone)	Sand City Municipal Code	A significant tree removal permit is required to be obtained from the City for the removal, cutting down, or trimming of more than one-third of the green foliage of, poisoning, or otherwise killing or destroying of any significant tree. A significant tree is defined as any tree which is equal to or greater than 10 inches diameter breast height.	
	City of Seaside (inland)	City of Seaside Municipal Code	A tree permit is required to be obtained from the City for removal or alteration of any tree on private property.	
Transfer Pipeline	City of Seaside (inland)	City of Seaside Municipal Code	See above.	Potential Conflict. Although not anticipated, depending on final design, implementation of this pipeline could require tree removal or construction within the driplines of trees located along La Salle Avenue, Yosemite Street, or Hilby Avenue.
Monterey Pipeline	City of Sand City (coastal zone)	Sand City Municipal Code	See above.	Potential Conflict. Although not anticipated, depending on final design, implementation of this pipeline could require tree removal or construction within the driplines of trees located along Del Monte Boulevard, Franklin Street, or any other street or path
	City of Seaside (inland and coastal zone)	City of Seaside Municipal Code	See above (same as City of Seaside inland).	

TABLE 4.6-6 (Continued)
APPLICABLE LOCAL PLANS, POLICIES, AND ORDINANCES RELATED TO TREE REMOVAL

Proposed Facility	Jurisdiction	Local Plans, Policies, and Ordinances Related to Tree Removal	Protected Trees	Potential to Conflict with Tree Ordinance
	City of Monterey (inland and coastal zone)	City of Monterey Municipal Code	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.	within the proposed Monterey Pipeline alignment.
	Pacific Grove (inland)	City of Pacific Grove Municipal Code	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 of any protected 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. • Monarch Butterfly Habitat Trees. All Trees in or within 100 yards of designated Monarch Sanctuaries. For the purposes of this title, the following sites are designated as Monarch Sanctuaries, serving as official Pacific Grove monarch butterfly over-wintering sites: – Monarch Grove Sanctuary. That portion of land bordered on the east and west by Ridge Road and Grove Acre Avenue, respectively, on the south by Short Street, and on the north by the northerly boundary of assessor's parcel numbers 006-361-30-031, -032, -033, and -034, extended from Grove Acre easterly to Ridge Road. – Washington Park Site. That portion of land bordered on the east and west by Alder Street and Melrose Avenue, respectively, on the north by Pine Avenue, and on the south by the imaginary extension of Junipero Avenue westerly from Alder to Melrose. • Public Trees. All Trees on Public Property six inches or greater in trunk diameter, measured at 54 inches above native grade, and all Street Trees, regardless of size. • Designated Trees. All Trees that are specifically designated to be saved and protected on public or	

TABLE 4.6-6 (Continued)
APPLICABLE LOCAL PLANS, POLICIES, AND ORDINANCES RELATED TO TREE REMOVAL

Proposed Facility	Jurisdiction	Local Plans, Policies, and Ordinances Related to Tree Removal	Protected Trees	Potential to Conflict with Tree Ordinance
			private property during Development and all Trees otherwise identified – during Development or otherwise – for special protection by the property owner.	
Terminal Reservoir and ASR Pump Station	City of Seaside (inland)	City of Seaside Municipal Code	See above.	Potential Conflict. Although not anticipated, depending on final design, installation of the Terminal Reservoir/ASR Pump Station could require tree removal or construction within the driplines of trees located at this site.
ASR-5 and ASR-6 Wells, ASR Settling Basin, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline	City of Seaside (inland)	City of Seaside Municipal Code	See above.	Potential Conflict. Although not anticipated, depending on final design, installation of the ASR-5 and ASR-6 Wells, ASR Settling Basin, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline could require tree removal or construction within the driplines of trees located at these sites.
Ryan Ranch–Bishop Interconnection Improvements	City of Monterey (inland)	City of Monterey Municipal Code	See above.	Potential Conflict. Although not anticipated, depending on final design, installation of the Ryan Ranch-Bishop Interconnection Improvements could require tree removal or construction within the driplines of trees located at this site.
Main System–Hidden Hills Interconnection Improvements	Monterey County (inland)	Monterey County Zoning Ordinance (Carmel Valley Master Plan)	The following trees are protected under this ordinance (tree diameters are measured 2 feet above the ground surface): • oak or madrone trees 6 inches or more in diameter • landmark oak trees (trees 24 inches or more in diameter, trees which are visually significant, historically significant, or exemplary of their species) • any oak tree removed for commercial harvesting purposes	Potential Conflict. Although not anticipated, depending on final design, installation of the Main System-Hidden Hills Interconnection Improvements could require tree removal or construction within the driplines of trees located at this site.

TABLE 4.6-6 (Continued)
APPLICABLE LOCAL PLANS, POLICIES, AND ORDINANCES RELATED TO TREE REMOVAL

Proposed Facility	Jurisdiction	Local Plans, Policies, and Ordinances Related to Tree Removal	Protected Trees	Potential to Conflict with Tree Ordinance
Valley Greens Pump Station Site Option 1	Monterey County (inland)	Monterey County Zoning Ordinance (Carmel Valley Master Plan)	See above.	Potential Conflict. Although not anticipated, depending on final design, installation of the Valley Greens Pump Station Option 1 could require tree removal or construction within the driplines of trees located at the site.
Valley Greens Pump Station Site Option 2	Monterey County (inland)	Monterey County Zoning Ordinance (Carmel Valley Master Plan)	See above.	No Conflict. There is one tree located at the Valley Greens Pump Station Site Option 2, but it is not anticipated that the tree would require removal or that construction would occur within its dripline.

All Other Proposed Project Facilities and Pipelines

To the extent feasible, all other proposed project facilities would be sited so as to minimize tree removal and avoid impacts to trees. Depending on final siting and design of the proposed project facilities, as well as the construction methods and techniques, implementation of the proposed project could necessitate tree removal at various locations throughout the project area. Any trees removed during project construction may conflict with local tree ordinances. This would be a potentially significant impact.

Implementation of **Mitigation Measure 4.6-4 (Compliance with Local Tree Ordinances),** which summarizes the local tree ordinances and permit requirements that would be implemented if trees were removed, would reduce potential impacts from conflict with local tree ordinances to less than significant. This measure would address impacts to local tree ordinances by requiring conformance with local tree policies and ordinances.

Mitigation Measures

Mitigation Measure 4.6-4 applies to MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, Terminal Reservoir/ASR Pump Station, ASR-5 and ASR-6 Wells, ASR Settling Basin, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (site Option 1).

Mitigation Measure 4.6-4: Compliance with Local Tree Ordinances.

1. The project applicant shall perform a comprehensive survey to identify, measure, and map trees subject to local tree removal ordinances (as specified in Table 4.6-6).

2. Any trees that are subject to local tree removal ordinances should be avoided to the extent practicable.

3. If tree removal cannot be avoided by project construction, then the applicant would comply with the applicable local tree policies or ordinances, obtain appropriate tree removal permits from applicable local agencies, and comply with those permits.

4.6.3.5 Operational Impacts and Mitigation Measures

With the exception of the MPWSP Desalination Plant, which would be staffed 24 hours a day, 365 days a year, all other proposed project facilities would be operated remotely most via Supervisory Control and Data Acquisition (SCADA) and/or would only be staffed for short periods of time during routine inspections and periodic maintenance activities.

Ongoing maintenance and periodic repairs would be required at various project facilities. It is assumed that CalAm maintenance staff would conduct routine inspections of the proposed pipelines and make pipelines repairs when needed. Because the location, nature, and extent of disturbance associated with future pipeline repairs cannot be predicted, the potential for adverse

effects to result from future pipeline repairs cannot be evaluated at this time. However, certain pipeline repairs may be subject to future CEQA review. For these reasons, only known, foreseeable, operational impacts are evaluated below.

Impact 4.6-5: Result in a substantial adverse effect on candidate, sensitive, or special-status species during project operations. (*Less than Significant with Mitigation*)

As described in Impact 4.6-1, above, many special-status plants and animals are either known to occur, or have potential to occur at the proposed facility sites as presented in **Table 4.6-1**. With the exception of the MPWSP Desalination Plant, most proposed project facilities would be operated remotely. Similar to existing conditions, CalAm facility operators would visit the sites periodically to conduct inspections and monitor operations.

Project operations at all facilities, except for the subsurface slant wells, and maintenance activities would not result in any known ground disturbance. Maintenance activities at the subsurface slant wells would include ground disturbance, which could result in impacts to special-status species.

Operation of the brine storage basin at the MPWSP Desalination Plant could impact migrating waterfowl. Additionally, operations of some facilities (subsurface slant wells, MPWSP Desalination Plant, ASR Pump Station/Terminal Reservoir, ASR-5 and ASR-6 Wells, Valley Greens Pump Station, and Main System-Hidden Hills Interconnection Improvements) may generate noise and/or include night lighting, which could disturb migrating birds and other special-status wildlife species in the vicinity of the facility. These potential impacts are described in subsections below.

Subsurface Slant Wells

The subsurface slant wells would generally be operated remotely using SCADA systems, workers would not need to access these areas for operations, and there is no proposed night lighting at this facility.

The slant wells would require routine maintenance approximately every 5 years. During maintenance, workers would excavate and expose the wellheads in order to clean the screens. Mechanical brushes would be used to mechanically clean the screen. Each well head and vault would be excavated for 1 to 2 weeks during cleaning and all well heads would be excavated between 9 and 18 weeks. Maintenance activities would likely be conducted between October and February to avoid the nesting season for snowy plover. Maintenance workers would access the slant wells via the existing CEMEX access road.

Slant well maintenance would occur at the three well clusters and would require that the three wellhead vaults be excavated. Several special-status species, as listed in **Table 4.6-1** and discussed in Impact 4.6-1, have potential to occur within central dune scrub within the subsurface slant well maintenance area. These include Monterey spineflower, western snowy plover, Smith's blue butterfly, black legless lizard, and silvery legless lizard.

Western snowy plovers are known to breed and winter in this area and have potential to occur within the slant well site. As described in Impact 4.6-1, above, work conducted during the breeding

season could impact western snowy plover by causing temporary flight of breeding birds and nest abandonment or failure, a potentially significant impact. Additionally, construction work within the vicinity of northernmost well cluster during the breeding season would result in the temporary loss of nesting habitat, a significant impact. The remaining subsurface slant wells would be maintained in the backdunes, away from the beach and foredunes where plovers typically nest, and would not result in the temporary loss of plover breeding habitat.

Work during the non-breeding season would avoid potential impacts to breeding snowy plovers. However, noise or disturbance from maintenance activities could directly or indirectly impact wintering plovers. However, maintenance work would be short-term and temporary and there is abundant habitat elsewhere along the Monterey Bay shoreline to support any wintering western snowy plovers displaced during maintenance. Therefore, impacts to wintering western snowy plover habitat would be less than significant.

Monterey spineflower, Smith's blue butterfly, black legless lizard, silvery legless lizard, and others as listed in **Table 4.6-4** as special-status species that could be adversely impacted during project maintenance of the subsurface slant wells, could be temporarily impacted by maintenance similar to as described under "Overview of Potential Construction Effects on Plants" and "Overview of Potential Construction Effects on Wildlife" in Impact 4.6-1. These impacts would be potentially significant.

Impacts to central dune scrub, which is habitat for several of the special-status plant species listed in **Table 4.6-1**, Smith's blue butterfly, western snowy plover, black legless lizard, silvery legless lizards, and coast horned lizard at the subsurface slant well site are addressed below under Impact 4.6-7.

Implementation of the following mitigation measures would ensure that impacts to sensitive species at this site are reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1d (Protective Measures for Western Snowy Plover), 4.6-1e (Avoidance and Minimization Measures for Special-status Plants), 4.6-1f (Avoidance and Minimization Measures for Smith's Blue Butterfly), 4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard), 4.6-1i (Avoidance and Minimization Measures for Nesting Birds), 4.6-1n (Habitat Mitigation and Monitoring Plan), 4.12-1b (General Noise Controls for Construction Equipment)**, and **4.14-2 (Site-Specific Construction Lighting Measures).** These measures would address impacts to special-status species from maintenance of the subsurface slant wells by designating a lead biologist to oversee implementation of special-status species protective measures; requiring worker training regarding special-status species potentially present; requiring general measures such as exclusion fencing to avoid and minimize impacts to special-status species; requiring specific measures to avoid and minimize impacts to the western snowy plover such as installing a visual construction barrier for work conducted adjacent to breeding habitat during the breeding season; requiring specific measures to avoid and minimize impacts to

special-status plants such as avoiding individual plants to the extent feasible; requiring specific measures to avoid and minimize impacts to Smith's blue butterfly such as avoiding host plants to the extent feasible; requiring specific measures to avoid and minimize impacts to black legless lizard, silvery legless lizard, and coast horned lizard such as relocating individuals to areas outside of the maintenance area; requiring specific measures to avoid and minimize impacts to nesting birds such as limiting maintenance to the non-nesting season when feasible; developing and implementing a mitigation and monitoring plan for temporarily and permanently impacted habitats; and requiring a construction lighting plan detailing measures to minimize light spillover outside of the maintenance area.

Operations of the subsurface slant wells would generate noise from operations of the pumping wells located in each of the three well heads. These well heads would be encased in a concrete vault and would be buried 5 feet below grade, which would attenuate some of the noise from pumping. Since there is significant existing noise from the CEMEX operations, crashing waves at the Pacific Ocean, and Highway 1 in the vicinity of the project site, and noise would be attenuated by being encased in a concrete vault and buried underground, the underground pumping is not expected to impact migratory birds or other special-status wildlife at the site and impacts would be less than significant.

MPWSP Desalination Plant

The 3-million-gallon brine storage basin at the MPWSP Desalination Plant would be approximately 1.5 acres in extent. Research on impacts of hypersaline waterbodies on birds indicates that waterfowl utilizing large highly saline lakes or ponds can become sick or die, particularly if there is not a source of freshwater in the vicinity. These waterbodies varied in size between 140 to approximately 3,200 acres in size (Gordus et al., 2002; Windingstand et al., 1987; USGS, 2004).

In 1985, approximately 150 waterfowl died and 250 were sickened from salt poisoning in White Lake, an approximately 3,200 acre waterbody (Windingstand et al., 1987). Sodium concentrations at that time were over 17 ppt. In 1998 and 1999, approximately 200 dead and sick ruddy ducks were collected from an approximately 140 acre agricultural evaporation basin located in the San Joaquin Valley. Sodium concentrations were approximately 39 ppt in the basin that year (Gordus et al., 2002).

The salinity of the brine is expected to range between 57 and 58 parts per thousand (Flow Science, Inc., 2014). Waterfowl utilizing the brine storage basin over long periods of time could become sick or die from salt toxicosis. The brine storage basin would be much smaller in size compared to the large hypersaline ponds described above and it is unlikely that the brine storage basin would impact the same number of birds as the ponds described above. Additionally, the freshwater pond located within Locke-Paddon Park, approximately 2 miles south of the proposed Brine Storage Basin, is similar in size to the proposed basin and would provide a freshwater alternative to the basin. Although it is unlikely that many birds would become sick or die at the Brine Storage Basin annually, over the life of the project, some migratory waterfowl could become sick or die from use of the brine storage basin, a significant impact.

Implementation of **Mitigation Measure 4.6-5 (Installation and Monitoring of Bird Deterrents at the Brine Storage Basin)** would reduce potential impacts to migratory waterfowl by discouraging them from utilizing the basin. Bird deterrent measures (such as use of a falconer, bird whistles, and fine ropes placed over the pond) are utilized at the adjacent MRWPCA Regional Wastewater Treatment Plant to successfully deter most birds from their ponds (Holden, 2015).

Minimal lighting would be utilized at the MPWSP Desalination Plant and would only be used for safety and security. Lighting would be similar to the existing light sources in the vicinity and would not be expected to change existing night lighting conditions or impact special-status wildlife in the vicinity. Pumps for the RO system would be located within the treatment building and are not expected to generate substantial noise. Some noise would be generated from the emergency diesel-powered generator for approximately 20 to 30 minutes each week. There is some ambient noise from the existing MRWPCA Wastewater Treatment Plant located adjacent to the proposed MPWSP Desalination Plant. The relatively infrequent noise from the generator, coupled with the sites proximity to an existing water treatment facility, is not expected to significantly impact special-status wildlife in the vicinity. Lighting and noise impacts are less than significant.

ASR Pump Station/Terminal Reservoir

Minimal lighting would be installed at the proposed ASR Pump Station/Terminal Reservoir site for safety and security purposes. As the ASR Pump Station/Terminal Reservoir would be located in a relatively undeveloped area that provides potential habitat for migratory birds or bats, the new lighting would introduce a new source of substantial light to the area that could impact migratory birds or bats by causing them to abandon their nests or roosts, which is a significant impact. However, with implementation of **Mitigation Measure 4.14-4 (Outdoor and Security Lighting)**, the impact would be reduced to a less-than-significant level. The measure would reduce nighttime light and glare impacts by requiring use of low-intensity lighting, if feasible, and that lights be shielded or directed downward to prevent light spillage into adjoining areas.

The ASR Pump Station would be enclosed in a concrete pump house, which would attenuate pumping noise, and would not be expected to generate substantial noise that would impact special-status wildlife adjacent to the site. An emergency diesel-powered generator would be operated weekly for approximately 20 to 30 minutes. Although this generator would be located outside the pump house and noise would not be attenuated, the relatively infrequent use of this generator is not expected to significantly impact special-status wildlife in the vicinity. Noise impacts are less than significant.

ASR-5 and ASR-6 Wells

Minimal nighttime lighting may need to be installed at the ASR-5 and ASR-6 Wells for site safety and security. Lighting would be similar to existing light sources adjacent to the site (from the adjacent street lights, golf course, and residences) and would not be expected to significantly add to existing light sources or impact special-status wildlife in the vicinity of this site. Lighting impacts are less than significant.

Each of the ASR-5 and ASR-6 Wells would be equipped with a pump that would generate noise. Each of the pumps would be enclosed in a standard concrete pump house to attenuate pumping noise. The ASR-5 and ASR-6 Well sites are surrounded by residences, a golf course, and General Jim Moore Boulevard that already generates some noise. Noise from the pumps are not expected to impact wildlife as some noise would be attenuated by the concrete pump house and there is already existing noise from traffic and residences adjacent to the site. Noise impacts are less than significant.

Valley Greens Pump Station

Minimal nighttime security lighting would be required at both of the Valley Greens Pump Station site options. Both site options have some existing lighting in their vicinity as they are located immediately adjacent to Carmel Valley Road and other residential and business buildings. Lighting would not be expected to significantly add to existing light in the vicinity of the sites or impact special-status wildlife in the vicinity of the sites. Lighting impacts are less than significant.

Pumping would generate noise and a portable diesel powered generated may be used at the site in the event of a power outage. The pump station would be enclosed in a single-story building that would attenuate some of the pumping noise. Additionally both site options are located immediately adjacent to Carmel Valley Road and existing businesses and residences. Noise from pumping or the occasional use of the generator is not expected to impact wildlife as some noise would be attenuated by the pump house and both sites are already subject to existing noise. Noise impacts are less than significant.

Main System-Hidden Hills Interconnection Improvements

No nighttime lighting would be used at the Main System-Hidden Hills Interconnection Improvements site.

Upgraded pumps would replace existing pumps at the Upper Tierra Grande Booster Station and the Middle Tierra Grande Booster Station. The new replacement pumps would generate more noise than the existing pumps, however then would still be located within existing buildings that would attenuate noise. Both pumps would be located alongside existing roadways and within existing residential developments. Noise from these upgraded pumps would not be expected to significantly increase noise levels or impact wildlife as some noise would be attenuated by the pump houses and the pump sites are already subject to existing noise. Noise impacts are less than significant.

All Other Facilities

Operations and maintenance of the Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, ASR Setting Basin, and Ryan Ranch-Bishop Interconnection Improvements may include periodic maintenance and inspections of facilities and would not result in additional ground disturbance. Operations of these facilities would be off-site or underground and noise generated from these facilities would

not be expected to impact special-status species. Therefore, no impact to special-status species from operations and maintenance at these facilities would result. No mitigation is required.

Land Use Plan & Policy Consistency

In addition to the physical impacts described above, as noted in **Table 4.6-2**, MPWSP operations could conflict with applicable land use plans, policies, and ordinances related to the protection of special-status species that were adopted for the purpose of avoiding or mitigating an environmental effect. Specifically, the project could conflict with the City of Marina General Plan Policies 4.112, 4.114, 4.118, 4.119, and 2.10; City of Marina Local Coastal Land Use Plan Policies 25 and 26 and Planning Guideline entitled Rare and Endangered Species: Habitat Protection, which were established to avoid or mitigate special-status species impacts. As discussed in the preceding paragraphs, **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1d (Protective Measures for Western Snowy Plover)**, **4.6-1e (Avoidance and Minimization Measures for Special-status Plants)**, **4.6-1f (Avoidance and Minimization Measures for Smith's Blue Butterfly)**, **4.6-1g (Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard)**, **4.6-1i (Avoidance and Minimization Measures for Nesting Birds)**, **4.6-1n (Habitat Mitigation and Monitoring Plan), 4.6-5 (Installation and Monitoring of Bird Deterrents at the Brine Storage Basin), 4.12-1b (General Noise Controls for Construction Equipment), 4.14-2 (Site-Specific Construction Lighting Measures)**, and **4.14-4 (Outdoor and Security Lighting)** would reduce potential impacts to special-status species during maintenance activities at the subsurface slant well site, as described above, and during project operations at the MPWSP Desalination Plant and Terminal Reservoir/ASR Pump Station by deterring bird use of the Brine Storage Basin and minimizing night lighting, respectively. Therefore, with these measures implemented, the MPWSP would be brought into conformance with the above-noted policies.

Impact Conclusion

Maintenance of the subsurface slant wells and operations of the MPWSP Desalination Plant and ASR Pump Station/Terminal Reservoir has potential to impact special-status species. Implementation of the proposed mitigation measures would reduce impacts to special-status species to less than significant.

Operations and maintenance of the Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, ASR Setting Basin, ASR-5 and ASR-6 Wells, Valley Greens Pump Station (both site options), Main System-Hidden Hills Interconnection Improvements, and Ryan Ranch-Bishop Interconnection Improvements would not be expected to impact special-status species. Therefore no impact would result. No mitigation is required.

Mitigation Measures

Mitigation Measure 4.6-5 applies only to the MPWSP Desalination Plant.

Mitigation Measure 4.6-5: Installation and Monitoring of Bird Deterrents at the Brine Storage Basin.

Bird deterrents (such as reflective flagging, whistles, or a falconer) should be utilized at the Brine Storage Basin. The type of bird deterrent should be determined by the lead biologist and should be modified if, through monitoring (as describes below), the bird deterrents are either not sufficient at deterring birds from the Brine Storage Basin or pose a risk to wildlife.

Monitoring of the Brine Storage Basin shall include the following:

- ***Monthly Monitoring*:** A qualified biologist and/or qualified biological monitor shall regularly survey the Brine Storage Basin at least once per month starting with the first month of operation of the Brine Storage Basin. The purpose of the surveys shall be to determine if the bird deterrents are effective in excluding birds and to assess whether the deterrents serve as a hazard to birds or wildlife. The monthly surveys shall be conducted in one day for a minimum of two hours following sunrise (i.e., dawn), a minimum of one hour mid-day (i.e., 1100 to 1300), and a minimum of two hours preceding sunset (i.e., dusk) in order to provide an accurate assessment of bird and wildlife use of the ponds during all seasons. Operations staff at the MPWSP Desalination Plant shall also report finding any dead birds or other wildlife at the Brine Storage Basin to the Lead Biologist within one day of the detection of the carcass. The Lead Biologists shall report any bird or other wildlife deaths or entanglements within two days of the discovery to CalAm, CDFW, and USFWS.

- ***Quarterly Monitoring*:** If after 12 consecutive monthly site visits (described above) no bird or wildlife deaths are detected at the Brine Storage Basin by or reported to the Lead Biologist, monitoring can be reduced to quarterly visits.

- ***Biannual Monitoring*:** If after 12 consecutive quarterly site visits (described above) no bird or wildlife deaths are detected by or reported to the Lead Biologist, future surveys may be reduced to two surveys per year, during the spring nesting season and during fall migration.

- ***Modification of Monitoring Program*:** As appropriate, the Lead Biologist shall modify the monitoring program based on information acquired during monitoring, and may also suggest adaptive management measures to remedy any problems that are detected during monitoring or modifications if bird impacts are not observed.

Mitigation Measure 4.6-1a applies to the subsurface slant wells.

Mitigation Measure 4.6-1a: Retain a Lead Biologist to Oversee Implementation of Protective Measures.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1b applies to the subsurface slant wells.

Mitigation Measure 4.6-1b: Construction Worker Environmental Awareness Training and Education Program.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1c applies to the subsurface slant wells.

Mitigation Measure 4.6-1c: General Avoidance and Minimization Measures.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1d applies to the subsurface slant wells.

Mitigation Measure 4.6-1d: Protective Measures for Western Snowy Plover.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1e applies to the subsurface slant wells.

Mitigation Measure 4.6-1e: Avoidance and Minimization Measures for Special-status Plants.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1f applies to the subsurface slant wells.

Mitigation Measure 4.6-1f: Avoidance and Minimization Measures for Smiths's Blue Butterfly.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1g applies to the subsurface slant wells.

Mitigation Measure 4.6-1g: Avoidance and Minimization Measures for Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1i applies to the subsurface slant wells.

Mitigation Measure 4.6-1i: Avoidance and Minimization Measures for Nesting Birds.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1n applies to the subsurface slant wells.

Mitigation Measure 4.6-1n: Habitat Mitigation and Monitoring Plan.

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.12-1b applies to the subsurface slant wells.

Mitigation Measure 4.12-1b: General Noise Controls for Construction Equipment.

(See Impact 4.12-1 in Section 4.12, Noise and Vibration, for description.)

Mitigation Measure 4.14-2 applies to the subsurface slant wells.

Mitigation Measure 4.14-2: Site-Specific Construction Lighting Measures.

(See Impact 4.14-2 in Section 4.14, Aesthetic Resources, for description.)

Mitigation Measure 4.14-4 applies to the ASR Pump Station/Terminal Reservoir

Mitigation Measure 4.14-4: Outdoor and Security Lighting.

(See Impact 4.14-4 in Section 4.14, Aesthetic Resources, for description.)

Impact 4.6-6: Result in substantial adverse effects on riparian habitat, critical habitat, or other sensitive natural communities during project operations. (*Less than Significant with Mitigation*)

As described above under Impact 4.6-2, the following special-status natural communities occur within or in the vicinity of the project area: beach, central maritime chaparral, central dune scrub, coast live oak woodland, coastal sage scrub, and riparian woodland and scrub. Critical habitat is also considered a sensitive natural community for the purposes of this analysis. (Potential operational impacts to wetlands or other waters, which are also considered sensitive natural communities, are addressed below under Impact 4.6-7.)

Project operations would largely be confined to water transport within the new facilities and would not result in any new ground disturbance. Maintenance activities at the subsurface slant wells would include periodic ground disturbance, which may result in impacts to sensitive natural communities. Foreseeable maintenance activities at the remaining proposed facilities would not result in any new ground disturbance and would not result in impacts to special-status species.

Subsurface Slant Wells

Maintenance of the slant wells would be required approximately every 5 years. Maintenance would include excavation to expose the wellhead vaults and cleaning/flushing the well casings. Mechanical brushes would be used to mechanically clean the screen. Each well head and vault would be excavated for 1 to 2 weeks during cleaning and all well heads would be excavated between 9 and 18 weeks. Excavation for maintenance would occur at the three well clusters and may require the temporary removal or disturbance of central dune scrub. As stated above under Impact 4.6-2, the site is in the Coastal Zone and central dune in this area may be considered ESHA under the City of Marina Local Coastal Land Use Plan. Impacts to central dune scrub would be potentially significant. Due to the aerial disturbance associated with slant well maintenance (this impact analysis conservatively assumes 1 acre of disturbance for each well), it is assumed that maintenance activities would be treated similar to construction activities and would require coverage under the NPDES Construction General Permit and preparation and

implementation of a SWPPP. Implementation of the following mitigation measures would ensure that maintenance impacts to sensitive communities, including critical habitat for western snowy plover, at this site are reduced to a less-than-significant level: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1d (Protective Measures for Western Snowy Plover), 4.6-1n (Habitat Mitigation and Monitoring Plan), 4.6-2a (Consultation with Local Agencies and the California Coastal Commission regarding Environmentally Sensitive Habitat Areas)**, and **4.6-2b (Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities)**. These measures would address impacts to sensitive natural communities and critical habitat during maintenance activities and the subsurface slant well site by designating a lead biologist to oversee implementation of sensitive habitat protective measures; requiring worker training regarding sensitive habitats present; requiring general measures such as exclusion fencing to avoid and minimize impacts to sensitive habitats; requiring specific measures to avoid and minimize impacts to western snowy plover habitat; developing and implementing a mitigation and monitoring plan for temporarily and permanently impacted habitats; determining the extent of ESHA and ensuring the project conforms to ESHA policies, and requiring specific measures to avoid, minimize, and potentially compensate for, impacts to sensitive habitats.

All Other Facilities

Operations and maintenance of the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, Terminal Reservoir, ASR Pump Station, ASR-5 and ASR-6 Wells, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, ASR Setting Basin, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (both options) would include periodic maintenance and inspections of existing facilities. Known maintenance efforts and inspections would be limited to already developed areas, which do not support sensitive natural communities or primary constituent elements of critical habitat. No impact to sensitive natural communities or critical habitat from operations and maintenance would result. No mitigation is required.

Land Use Plan & Policy Consistency

In addition to the physical impacts described above, as noted in **Table 4.6-2**, MPWSP operations could conflict with applicable land use plans, policies, and ordinances related to riparian habitat or sensitive natural communities that were adopted for the purpose of avoiding or mitigating an environmental effect. Specifically, the project could conflict with City of Marina General Plan Policies 4.112, 4.114, 4.116, 4.118, and 2.10; City of Marina Local Coastal Land Use Plan Policies 8, 19, 25, 26 and Planning Guideline entitled Rare and Endangered Species: Habitat Protection, which were established to avoid or mitigate riparian habitat and sensitive natural community impacts. As discussed in the preceding paragraphs, **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, **4.6-1c (General Avoidance and Minimization Measures)**, **4.6-1d (Protective Measures for Western**

Snowy Plover), **4.6-1n (Habitat Mitigation and Monitoring Plan)**, **4.6-2a (Consultation with Local Agencies and the California Coastal Commission regarding Environmentally Sensitive Habitat Areas)**, and **4.6-2b (Avoid, Minimize, and Compensate for Direct Construction Impacts to Sensitive Communities)** would reduce potential impacts to sensitive natural communities from maintenance activities at the subsurface slant well site by requiring measures to avoid, minimize, or mitigate impacts to these habitats and communities. Therefore, with these measures implemented, the MPWSP would be brought into conformance with the above-noted policies.

Impact Conclusion

Operations of project facilities would occur underground in new pipelines or within previously disturbed project footprints, which do not support sensitive natural communities or primary constituent elements of critical habitat. Therefore no impact would result. No mitigation is required.

Maintenance of the subsurface slant wells has potential to impact sensitive natural communities and critical habitat. Implementation of the proposed mitigation measures would reduce impacts to sensitive natural communities and critical habitat to less than significant. Foreseeable maintenance at the other facilities would not disturb any new areas and would have less than significant impacts on sensitive natural communities and critical habitat.

Mitigation Measures

Mitigation Measure 4.6-1a applies to the subsurface slant wells.

> **Mitigation Measure 4.6-1a: Retain a Lead Biologist to Oversee Implementation of Protective Measures.**
>
> (See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1b applies to the subsurface slant wells.

> **Mitigation Measure 4.6-1b: Construction Worker Environmental Awareness Training and Education Program.**
>
> (See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1c applies to the subsurface slant wells.

> **Mitigation Measure 4.6-1c: General Avoidance and Minimization Measures.**
>
> (See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1d applies to the subsurface slant wells.

> **Mitigation Measure 4.6-1d: Protective Measures for Western Snowy Plover.**
>
> (See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1n applies to the subsurface slant wells.

Mitigation Measure 4.6-1n: Habitat Mitigation and Monitoring Plan

(See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-2a applies to subsurface slant wells.

Mitigation Measure 4.6-2a: Consultation with Local Agencies and the California Coastal Commission regarding Environmentally Sensitive Habitat Areas

(See Impact 4.6-2, above, for description.)

Mitigation Measure 4.6-2b applies to subsurface slant wells.

Mitigation Measure 4.6-2b: Avoid, Minimize, and Compensate for Construction Impacts to Sensitive Communities

(See Impact 4.6-2, above, for description.)

Impact 4.6-7: Result in substantial adverse effects on federal wetlands, federal other waters, and/or waters of the State during project operations. (*Less than Significant with Mitigation*)

As described in Impact 4.6-3, waters of the U.S./waters of the State under the jurisdiction of the CCC, RWQCB, and/or USACE occur within and adjacent to the project area. Project operations would largely be confined to water transport within the new facilities and would not result in any new ground disturbance. Maintenance activities at the subsurface slant wells would include ground disturbance, which may result in impacts to waters of the U.S./waters of the State within or adjacent to the project area. Foreseeable maintenance activities at the remaining proposed facilities would not result in any new ground disturbance and would not result in impacts to waters of the U.S./waters of the State.

Subsurface Slant Wells

Maintenance of the slant wells require excavation and cleaning of well heads approximately every five years. Workers would excavate the area around the wellhead vaults to expose the wellheads. Mechanical brushes would be lowered into the wells and used to clean the screens. Each wellhead and vault would be excavated and uncovered for 1 to 2 weeks during well cleaning operations. Accounting for all slant wells, the total duration of maintenance activities within the beach area would be between 9 and 18 weeks. Excavation would not occur in potential waters of the U.S./waters of the State.

The CEMEX settling ponds are located approximately 30 feet from the northernmost slant well cluster. Indirect impacts to water quality are not expected as these ponds are surrounded by berms and slope should attenuate any potential project related discharges to this feature. Additionally, mandatory compliance with the NPDES Construction General Permit, including implementation of the project-specific SWPPP, would reduce potential water quality impacts. However, due to

proximity, construction crews could inadvertently impact wetlands by walking or driving through them during maintenance, which would be a significant impact.

Implementation of the following mitigation measures would ensure that potential impacts to adjacent waters of the U.S./waters of the State would be reduced to less-than-significant levels: **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, and **4.6-1c (General Avoidance and Minimization Measures).** These measures would address impacts to waters of the U.S./waters of the State from maintenance of the subsurface slant wells by designating a lead biologist to oversee implementation of wetland/other waters protective measures; requiring worker training regarding wetlands/other waters potentially present; requiring general measures such as exclusion fencing to avoid and minimize impacts to wetlands/other waters.

All Other Facilities

Operations and maintenance of the MPWSP Desalination Plant, Source Water Pipeline, Desalinated Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, Terminal Reservoir, ASR Pump Station, ASR-5 and ASR-6 Wells, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline,ASR Setting Basin, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (both options) would include periodic inspections and repairs when needed. Any foreseeable disturbance associated with facility inspections, maintenance, and operations would be limited to developed areas that do not support waters of the U.S/waters of the State. No impact to waters of the U.S./waters of the State would result from maintenance and operations activities. No mitigation is required.

Land Use Plan & Policy Consistency

In addition to the physical impacts described above, as noted in Table 4.6-2, MPWSP operations could conflict with applicable land use plans, policies, and ordinances related to waters of the U.S./waters of the State that were adopted for the purposes of avoiding or mitigating an environmental effect. Specifically, the project could conflict with the City of Marina General Plan Policies 4.112, 4.114, 4.116, 4.118, and 2.10; City of Marina Local Coastal Land Use Plan Policy 26 and Planning Guidelines entitled Rare and Endangered Species: Habitat Protection **Mitigation Measures 4.6-1a (Retain a Lead Biologist to Oversee Implementation of Protective Measures)**, **4.6-1b (Construction Worker Environmental Awareness Training and Education Program)**, and **4.6-1c (General Avoidance and Minimization Measures)** would reduce potential impacts to waters of the U.S./waters of the State from maintenance of the subsurface slant wells by designating a lead biologist to oversee implementation of wetland/other waters protective measures; requiring worker training regarding wetlands/other waters potentially present; requiring general measures such as exclusion fencing to avoid and minimize impacts to wetlands/other waters.

Therefore, with these measures implemented, the MPWSP would be brought into conformance with the above-noted policies.

Impact Conclusion

Operations of project facilities would occur underground in new pipelines or within previously disturbed project footprints, which do not waters of the U.S./waters of the State. Therefore no impact would result. No mitigation is required.

Maintenance of the subsurface slant wells has potential to impact potential waters of the U.S./waters of the State. Implementation of the proposed mitigation measures would reduce impacts to waters of the U.S/waters of the State to less than significant. Foreseeable maintenance at the other facilities would not disturb any new areas. Therefore no impact would result. No mitigation is required.

Mitigation Measures

Mitigation Measure 4.6-1a applies to the subsurface slant wells.

> **Mitigation Measure 4.6-1a: Retain a Lead Biologist to Oversee Implementation of Protective Measures.**
>
> (See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1b applies to the subsurface slant wells.

> **Mitigation Measure 4.6-1b: Construction Worker Environmental Awareness Training and Education Program.**
>
> (See Impact 4.6-1, above, for description.)

Mitigation Measure 4.6-1c applies to the subsurface slant wells.

> **Mitigation Measure 4.6-1c: General Avoidance and Minimization Measures.**
>
> (See Impact 4.6-1, above, for description.)

Impact 4.6-8 Conflict with the provisions of an adopted Habitat Conservation Plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plan. (*Less than Significant with Mitigation*)

Transfer Pipeline, Terminal Reservoir, and ASR Pump Station

The Terminal Reservoir/ASR Pump Station site and the portion of the Transfer Pipeline alignment located east of General Jim Moore Boulevard are located within the *1997 Installation-Wide Multispecies Habitat Management Plan* (HMP) for the former Fort Ord area. These proposed facilities are located within a Borderland Development Area along a Natural Resource Management Area (NRMA) Interface, which means they are located in designated development areas that border a NRMA. Per the HMP, as these areas are developed, certain management requirements would be implemented, which include invasive species control and the use of

firebreaks. The proposed Transfer Pipeline, Terminal Reservoir, and ASR Pump Station do not include controls for invasive species or firebreaks. Therefore, these facilities would conflict with the HMP, a significant impact.

Implementation of **Mitigation Measure 4.6-8 (Management Requirements within Borderland Development Areas along Natural Resource Management Area Interface)** would ensure that the proposed project does not conflict with the provisions of an adopted Habitat Conservation Plan, natural community conservation plan or other approved local, regional, or state habitat conservation plan and would reduce potential impacts to a less-than-significant level. This measure would reduce impacts by ensuring that measures that are required to be implemented as part of the HMP are implemented for the proposed project.

Preparation of a HCP is currently underway for the former Fort Ord military base (Draft HCP; Fort Ord Reuse Authority, 2012). The Draft HCP is currently undergoing internal review and has not been released to the public. It is expected to be complete in 2016. Once approved, the Draft HCP will supersede the HMP. Similar to the HMP, the Terminal Reservoir/ASR Pump Station Site and Transfer Pipeline east of General Jim Moore Boulevard are located within Borderlands that are Designated Development Areas in the Draft HCP. If the Draft HCP is approved and permitted before the proposed project is implemented, these facilities may be subject to additional mitigation measures required under the approved HCP, which cannot be known at this time.

ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin

The proposed ASR ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin are located within the HMP area. However, these proposed facilities are located within designated development areas that do not border a NRMA. Per the HMP, no resource conservation or resource management requirements are associated with projects in these parcels. Therefore, construction of these facilities would not conflict with adopted habitat conservation plans or natural community conservation plans or other approved local, regional, or state habitat conservation plans. No impact would result.

Similar to the HMP, the proposed ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin are located within Designated Development Areas in the Draft HCP. If the Draft HCP is approved and permitted before the proposed project is implemented, these facilities may be subject to additional mitigation measures required under the approved HCP, which cannot be known at this time.

All Other Proposed Project Facilities

Implementation of the subsurface slant wells, MPWSP Desalination Plant, Source Water Pipeline and Desalination Water Pipeline, Salinas Valley Return Pipeline, Brine Discharge Pipeline, Transmission Main, Monterey Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station (both options) are not located within the HMP or HCP areas and therefore would not conflict with adopted habitat conservation plans or natural community conservation plans or other approved

local, regional, or state habitat conservation plans during construction as none occur at these facility sites. No impact would result.

Land Use Plan & Policy Consistency

As noted in **Table 4.6-2**, above, the proposed project would not conflict with applicable land use plans, policies, and ordinances related to adopted Habitat Conservation Plans, natural community conservation plans or other approved local, regional, or state habitat conservation plan.

Impact Conclusion

The Terminal Reservoir/ASR Pump Station site and proposed Transfer Pipeline alignment east of General Jim Moore Boulevard are located within the approved HMP area and construction and operations of these facilities could conflict with the HMP; which would be a significant impact. Implementation of **Mitigation Measure 4.6-8 (Management Requirements within Borderland Development Areas along Natural Resource Management Area Interface)** would reduce potential impacts to a less-than-significant level. The proposed ASR-5 and ASR-6 Wells, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and ASR Settling Basin are located within the HMP area. However, these proposed facilities are located within designated development areas and construction and operations of these facilities would not conflict with the HMP. The remaining facilities are not located within the HMP area and would not conflict with the HMP.

Mitigation Measures

Mitigation Measure 4.6-8 applies to the Transfer Pipeline, Terminal Reservoir, and ASR Pump Station.

> **Mitigation Measure 4.6-8: Management Requirements within Borderland Development Areas along Natural Resource Management Area Interface.**
>
> Within Borderland Development Areas along Natural Resource Management Areas (NRMA) Interface as defined in the 1997 *Installation-Wide Multispecies Habitat Management Plan* for the former Fort Ord area, CalAm shall implement the following measures (unless otherwise negotiated between CalAm and FORA):
>
> 1. Weed control measures for ice plant, scotch broom, and pampas grass to avoid their spread into the NRMA.
> 2. Parking lots, greenbelts, or other nonflammable or fire-resistant land uses shall be located as a buffer between the NRMA and development to minimize the possibility of fire damage to the NRMA as well as structures on the development parcels.
> 3. Structures shall be sited entirely behind a land use that is developed as a firebreak
> 4. Reduce erosion so as not to affect the NRMA parcel from stormwater runoff. The method to reduce erosion shall be determined by the Lead Biologist.

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