

## 7.6 TERRESTRIAL BIOLOGY

The following discussion provides an assessment of terrestrial biological resources in the vicinity of the proposed onshore project components. Information regarding marine biological resources can be found in Section 7.5 - Marine Biology, and Appendix S.14 - Marine Biological Assessment, respectively. Please refer to Appendix S.15 for a more complete description of the terrestrial biological setting of the Clearwater Port Project.

### 7.6.1 Environmental Setting

Biological field surveys were conducted along each pipeline alignment, with survey time focused on areas supporting native vegetation and wildlife habitat. However, access was not provided for much of the Line 324 Loop alignments and vegetation mapping and habitat assessment was conducted based on high resolution color aerial photographs.

In addition, the U.S. Fish and Wildlife Service provided a list of threatened and endangered species (dated December 15, 2004) known to occur in the project area to facilitate preparation of the environmental setting.

#### 7.6.1.1 Vegetation

Based on field surveys by Padre and inspection of aerial photographs, generalized plant communities have been identified along the pipeline alignments (see Appendix S.15 for complete descriptions). Plant communities along the pipeline alignments are highly variable and the quality of habitat varies considerably. Many areas traversed by the pipeline alignments are within or immediately adjacent to roadways or agricultural fields, and have been heavily influenced by human activities, which have resulted in the replacement of native plant communities with concrete and/or non-native plant species. However, several areas along the pipeline alignments are less disturbed and are dominated by native vegetation.

**Mandalay to Center Road Pipeline.** This pipeline alignment begins at the Mandalay landfall site, where the pipeline arrives on shore adjacent to the Southern California Gas Company (SCGC) Gas Receiving and Metering Station (located within the Reliant Energy Mandalay Generating Station). Most areas traversed by this pipeline alignment are within or immediately adjacent to roadways or agricultural fields. However, all three alternatives would traverse a small stand of dune scrub just east of Harbor Boulevard. Appendix S.15 provides vegetation maps for the three alternative pipeline alignments considered.

Northern Alternative. The majority of the northern alternative is located along disturbed roadways, development, ruderal, and agricultural areas. However, along several portions of the alignment there is natural vegetation and windrows including blue gum eucalyptus (approximately 2.4 acres). The pipeline alignment lies within the existing flood control access road along the Santa Clara River, from Victoria Avenue to U.S. 101. The River supports a dynamic mosaic of riparian plant communities including mulefat scrub, willow scrub and willow riparian forest. South of U.S. 101, riparian vegetation is located immediately adjacent to the

access road and is comprised of willow riparian forest dominated by red willow (*Salix laevigata*), giant reed (*Arundo donax*) and arroyo willow. Areas near the Victoria Avenue bridge support nearly pure stands of giant reed, an invasive exotic species. There are no watercourse crossings on this pipeline alignment.

Middle Alternative. The middle alternative is almost solely located on disturbed and agricultural areas. The only natural community that the pipeline traverses is southern dune scrub at the beginning portion of the alignment. Windrows are also present on this alignment which may include blue gum eucalyptus (approximately 1.4 acres). There are no watercourse crossings on this pipeline alignment.

Southern Alternative. Of the three alternatives, the southern would traverse the most disturbed and/or agricultural land. The only natural community that the pipeline traverses is southern dune scrub at the beginning portion of the alignment. No windrows would be disturbed as part of this proposed alignment. There are also no watercourse crossings on this pipeline alignment.

**Line 324 Loop Pipeline.** The proposed Line 324 Loop would extend from the SCGC Center Road Station in Somis, California to SCGC Saugus Valve Station in Santa Clarita, California. One primary pipeline alignment and two alternatives have been developed for the Line 324 Loop. Given the length of the Line 324 Loop, the largest quantity of undisturbed natural vegetation can be found along this pipeline; however the vegetation type, quality and quantity are all highly variable for each alignment considered. It should be noted that whenever possible, the pipeline will be located within or adjacent to roadways to minimize disturbance. Agricultural land is generally preferred for pipeline placement as compared to natural undisturbed vegetation.

Generally, all three alignments considered transverse annual grassland, oak woodland, oak savanna, mixed chaparral, and coastal sage scrub. Portions of all three pipeline alignments follow the existing SCGC Line 324 right-of-way (R/W), which will be further detailed below. Portions of the SCGC and railroad R/W contain lesser quality habitat due to the continuous monitoring and maintenance of the existing pipeline and railroad. Appendix S.15, Figure 1 contains vegetation maps of the preferred and alternative alignments for the proposed Line 324 Loop Pipeline.

Primary Alignment. This is the shortest alignment of the three potential alignments for the 324 Loop at 37 miles long. Approximately 28.5 miles of the alignment are within the original SCGC R/W. Much of the primary alignment either parallels or passes through the Santa Susana Mountain range. This alignment traverses the most natural vegetation of the three alignments. Natural vegetation types inclusive to this alignment are coastal sage scrub, chamise chaparral, mixed chaparral, southern willow riparian scrub, oak savannah, oak woodland and scalebroom scrub. Thirteen watercourses and one riparian area will be crossed by the primary alignment; this includes crossing the Santa Clara River twice.

Alternative 1 (blue-red-blue). Alternative 1 follows the same alignment as the primary alignment for 19.5 of its 40 total miles. 15.5 miles of the alignment are within the original SCGC R/W and 3.5 miles within the railroad R/W. Portions of this alignment follow the Santa Clara River Valley, which pass through the vegetation community types of southern cottonwood-willow riparian forest and southern willow scrub. Windrows are present on this alignment, which include blue gum eucalyptus (approximately 0.4 acres). Fifteen watercourses and one riparian area will be crossed by the Alternative 1 alignment; this includes crossing the Santa Clara River three times as well as Sespe and Piru Creeks once.

Alternative 2 (green-red-blue). Alternative 2 follows the same alignment as 10.5 miles of the primary route and 16 miles of Alternative 1. The total length of Alternative 2 is 43.5 miles. Approximately 6.5 miles of this alignment fall within SCGC R/W and 6.75 miles falls within railroad R/W. Of the three alignments, Alternative 2 traverses through the least amount of natural vegetation. The majority of this alignment follows the Santa Clara River Valley, which includes the community types of southern cottonwood-willow riparian forest and southern willow scrub. Windrows are present on this alignment, which include blue gum eucalyptus (approximately 0.4 acres). Eighteen watercourses would be crossed by the Alternative 2 alignment; this includes crossing the Santa Clara River four times as well as Sespe, Santa Paula, and Piru Creeks once. One of the Santa Clara River pipeline crossings would be attached to an existing bridge to avoid ground disturbance.

**Line 225 Loop.** The Line 225 Loop would extend from the Southern California Gas Company (SCGC) Quigley Valve Station to the SCGC Honor Rancho Valve Station in the City of Santa Clarita, California. There is one primary route and one alternative route proposed for this pipeline. The new pipeline will generally parallel the current SCGC Line 225 Pipeline either within or adjacent to the existing right-of-way (R/W). Many areas traversed by both pipeline alignments are within or immediately adjacent to roadways or in disturbed development and ruderal areas. Appendix S.15, Figure 1 contains vegetation maps of the alignments considered for the Line 225 Loop.

Primary Alignment. This alignment follows the existing SCGC pipeline for approximately 6 of its 8 miles. The primary alignment contains willow scrub, coastal sage scrub (riversidean scrub), and mixed chaparral (with an emphasis on chamise). All watercourse crossings within the Primary Alignment would be attached to an existing bridge. This includes the Santa Clara River, South Fork Santa Clara River, and the San Francisquito Creek crossing locations.

Alternative Alignment. This alignment follows the existing SCGC pipeline for approximately 7.5 of its 8 miles. The primary alignment contains willow scrub, coastal sage scrub, and mixed chaparral (with an emphasis on chamise). The pipeline would cross two watercourses, the South Fork Santa Clara River and the Santa Clara River.

**Line 3008 Extension.** The proposed Line 3008 Pipeline will extend the existing SCGC Line 3008 Pipeline from Newhall Valve Station to Balboa Station. The pipeline will be constructed within public roadway R/W, and along an existing utility corridor. The estimated length of this segment is 4.75 miles. This alignment contains willow scrub, coastal sage scrub

(riversidean scrub), oak woodland (interior live oak), and walnut woodland habitats. There are no watercourse crossings anticipated for this alignment. Appendix S.15, Figure 1 contains vegetation maps of the pipeline alignment considered for the Line 3008 Extension.

### 7.6.1.2 Wildlife Species

The following provides an overview of aquatic and terrestrial wildlife species known to occur within the vicinity of the four pipeline alignments. A variety of wildlife species can be found within the project site, due to the diversity of habitats (shoreline, riparian and upland regions) that project footprint encompasses. Information regarding wildlife species may overlap with the marine biological resources mentioned in Section 7.5.1.8 – Special Status Marine Species. For wildlife species associated with specific habitat types along all proposed alignments, please refer to Appendix S.15.

**Fish.** At least 25 fish species have been reported from the Santa Clara River, including 10 marine species associated with the estuary (Bell, 1978; Fugro-McClelland, 1993). Species that may occur adjacent to the gas pipeline alignment (MP 17.7 to 22.3) include Pacific lamprey (*Lampetra tridentate*), Santa Ana sucker (*Catostomus santaanae*), mosquitofish (*Gambusia affinis*), partially armored 3-spined stickleback (*Gasterosteus aculeatus microcephalus*), rainbow trout/steelhead (*Oncorhynchus mykiss*), arroyo chub (*Gila orcutti*), black bullhead (*Ameiurus melas*), brown bullhead (*Ictalurus nebulosus*), channel catfish (*Ictalurus punctatus*), green sunfish (*Lepomis cyanellus*), large-mouth bass (*Micropterus salmoides*) and fathead minnow (*Pimephales promelas*). Species that may occur in the Santa Clara River north of Newhall, adjacent to the Line 225 Loop include Santa Ana sucker, mosquitofish, un-armored 3-spined stickleback (*Gasterosteus aculeatus williamsoni*), arroyo chub, and fathead minnow.

**Amphibians.** Amphibian species observed or expected along pipeline alignments (including the Santa Clara River) include western toad (*Bufo boreas*), bullfrog (*Rana catesbeiana*), Pacific treefrog (*Hyla regilla*) and black-bellied salamander (*Batrachoseps nigriventris*). Monterey salamander (*Ensatina eschscholtzii*) and arboreal salamander (*Aneides lugubris*) have a high potential to occur in riparian and upland habitat along the lower Santa Clara River corridor. Additional species that may occur in the vicinity of the upper Santa Clara River and San Francisquito Creek, near the Line 225 Loop include arroyo toad (*Bufo californicus*), western spadefoot (*Spea hammondi*) and African clawed frog (*Xenopus laevis*).

**Reptiles.** Lizards observed or expected along the pipeline alignments include side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), western skink (*Eumeces skiltonianus*), southern alligator lizard (*Elgaria multicarinata*), silvery legless lizard (*Anniella pulchra pulchra*), long-nosed leopard lizard (*Gambelia wislizenii wislizenii*), and San Diego horned lizard (*Phrynosoma coronatum blainvillei*), and coastal western whiptail (*Cnemidophorus tigris multiscutatus*) (NDDB, 2006).

Snakes that may occur within areas affected by pipeline installation include San Diego gopher snake (*Pituophis melanoleucus annectans*), western rattlesnake (*Crotalus viridis*), two-striped garter snake (*Thamnophis hammondi*), California kingsnake (*Lampropeltis getulus*



*californiae*), striped whipsnake (*Masticophis lateralis*), San Diego mountain kingsnake (*Lampropeltis zonata pulchra*), San Bernardino ring-necked snake (*Diadophis punctatus modestus*), coast patched-nose snake (*Salvadora hexalepis virgultea*), chaparral whipsnake (*Masticophis lateralis lateralis*), long-nosed snake (*Rhinocheilus lecontei*), and red coachwhip (*Masticophis flagellum piceus*).

The southwestern pond turtle (*Clemmys marmorata pallida*) and is known to occur in the Santa Clara River and likely occurs within the River corridor adjacent to the northern alternative for the Mandalay-Center Road pipeline alignment.

**Birds.** There is a wide variety of birds that occur within areas affected by pipeline installation, due to the diversity of habitats (shoreline, riparian and upland regions) and regional nature of the project. While most of the terrestrial bird species frequent the riparian and upland region, shorebirds and some marine birds frequent the beaches and estuaries overlapping both the marine and terrestrial zones of the project site. Information regarding shorebird special status species is also presented and may overlap with the marine biological resources section (Section 7.5.1.8 Special Status Marine Species).

Some of the common birds found away from shore (beach and riparian areas), and in the upland regions (portions of the 324, 225, and 3008 alignment) of the pipeline are red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), white-tailed kite (*Elanus leucurus*), western scrub-jay (*Aphelocoma coerulescens*), northern flicker (*Colaptes auratus*), oak titmouse (*Baeolophus inornatus*), Bewick's wren (*Thryomanes bewickii*), western bluebird (*Sialia mexicana*), bushtit (*Psaltriparus minimus*), Blue-grey gnatcatcher (*Polioptila caerulea*), Anna's hummingbird (*Calypte anna*), white-crowned sparrow (*Zonotrichia leucophrys*), golden-crowned sparrow (*Zonotrichia atricapilla*), ruby-crowned kinglet (*Regulus calendula*), California thrasher (*Toxostoma redivivum*), California quail (*Callipepla californica*), spotted towhee (*Pipilo erythrophthalmus*), yellow-rumped warbler (*Dendroica coronata*), California towhee (*Pipilo crissalis*), house finch (*Carpodacus mexicanus*), American goldfinch (*Carduelis tristis*), and northern mockingbird (*Mimus polyglottos*).

A total of 242 bird species have been included in the checklist of Birds of McGrath State Beach (including the adjacent nearshore waters, Santa Clara River estuary and Ventura Water Reclamation Plant wildlife ponds). Forty of these species breed in the local area (Channel Coast Natural History Association, 1990). The more common species include western grebe (*Aechmophorus occidentalis*), brown pelican (*Pelecanus occidentalis californicus*), black-crowned night heron (*Nycticorax nycticorax*), mallard (*Anas platyrhynchos*), cinnamon teal (*Anas cyanoptera*), American widgeon (*Anas americana*), American coot (*Fulica americana*), killdeer (*Charadrius vociferous*), willet (*Catoptrophorus semipalmatus*), sanderling (*Calidris alba*), western sandpiper (*Calidris mauri*), ring-billed gull (*Larus delawarensis*), western gull (*Larus occidentalis*), Forster's tern (*Sterna forsteri*), mourning dove (*Zenaidura macroura*), black phoebe (*Sayornis nigricans*), Lincoln's sparrow (*Melospiza lincolni*), barn swallow (*Hirundo rustica*), American crow (*Corvus brachyrhynchos*), red-winged blackbird (*Agelaius phoeniceus*), brewer's blackbird (*Euphagus cyanocephalus*), California least tern (*Sterna antillarum browni*) and the Western snowy plover (*Charadrius alexandrinus nivosus*). Many of these bird species





also occur near the proposed pipeline landing at Mandalay Beach and along the Santa Clara River.

**Mammals.** Mammals observed or expected in the project area (324 Loop, 225 Loop, and 3008 extension) include Virginia opossum (*Didelphis virginiana*), Yuma myotis (*Myotis yumanensis*), Botta's pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), mountain lion (*Felis concolor*), gray fox (*Urocyon cinereoargenteus*), American badger (*Taxidea taxus*), Audubon's cottontail (*Sylvilagus audubonii*), western gray squirrel (*Sciurus griseus*), California ground squirrel (*Spermophilus beecheyi*), California pocket mouse (*Chaetodipus californicus*), western harvest mouse (*Reithrodontomys megalotis*), deer mouse (*Peromyscus maniculatus*), cactus mouse (*Peromyscus eremicus*), California vole (*Microtus californicus*), dusky-footed woodrat (*Neotoma fuscipes*), San Diego desert woodrat (*Neotoma lepida intermedia*), black-tailed deer (*Odocoileus hemionus*) long-tailed weasel (*Mustela frenata*), striped skunk (*Mephitis mephitis*), California myotis (*Myotis californicus*), ornate shrew (*Sorex ornatus*) and broad-footed mole (*Scapanus latimanus*).

Mammals expected at the pipeline landing at Mandalay Beach and the disturbed areas nearby include Virginia opossum, Botta's pocket gopher, deer mouse, house mouse (*Mus musculus*), striped skunk, long-tailed weasel, California ground squirrel, Audubon's cottontail, Black-tailed jackrabbit (*Lepus californicus benetti*), red fox (*Vulpes vulpes*) and feral cat (*Felis domesticus*) (Biosystems Analysis, 1993; Impact Sciences, 1995). The black-tailed jackrabbit was formerly common in southern California from the coast to the desert but now is scattered in remnant populations. This species is known to occur in the Ormond Beach area (Impact Sciences 1995) and has also been reported from the Riverpark project site 1.6 miles north of Line 225 (Impact Sciences, 2004).

### 7.6.1.3 Wildlife Movement Corridors

Wildlife migration corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Migration corridors may be local such as between foraging and nesting or denning areas, or they may be regional in nature. Migration corridors are not unidirectional access routes; however, reference is usually made to source and receiver areas in discussions of wildlife movement networks. "Habitat linkages" are migration corridors that contain contiguous strips of native vegetation between source and receiver areas. Habitat linkages provide cover and forage sufficient for temporary habitation by a variety of ground-dwelling animal species. Wildlife migration corridors are essential to the regional ecology of an area as they provide avenues of genetic exchange and allow animals to access alternative territories as fluctuating dispersal pressures dictate.

The Santa Clara River and associated tributaries may play an important role as migration corridors for wildlife species moving between large habitat blocks of the San Gabriel Mountains, the Santa Ynez Mountains, smaller coastal hills and the McGrath Lake/Ormond Beach/Mugu lagoon wetland complex. These migration corridors are especially critical through

urban areas (such as Santa Clarita, Fillmore, Santa Paula, Ventura, and Oxnard) where human activities may impair the movement of species between habitat areas. McGrath Lake, Mugu Lagoon and the wetlands at Ormond Beach serve as important habitat for bird species during migration through the Pacific Flyway. Many bird species use these areas as an annual stopover location for several days of rest and feeding prior to continuing migration to their seasonal destination.

#### 7.6.1.4 Sensitive Communities

For the purposes of this analysis, sensitive natural communities included those that are considered rare by the California Department of Fish and Game (CDFG) Natural Diversity Data Base (NDDDB), considered sensitive by other trustee agencies or the scientific community. The NDDDB has inventoried natural communities and ranked them according to their rarity and potential for loss. Rare natural communities found within the project area and their conservation status are provided below in Table 7.6-1.

**Table 7.6-1. Sensitive Natural Communities of the Pipeline Alignments**

Community	NDDB Ranking	Nearest Pipeline Segment
Southern cottonwood-willow riparian forest	G3, S3.2	Northern Mandalay to Center Road alignment (near lower Santa Clara River)
Oak woodland (valley and coast live oak riparian)	G4, S4	Line 324 primary alignment
Southern arroyo willow riparian forest	G2, S2.1	Found in Mandalay to Center Rd, Line 324 Loop, and Line 225 Loop
Southern riparian scrub	G3, S3.2	Found in Mandalay to Center Rd, Line 324 Loop, and Line 225 Loop
Southern willow scrub	G3, S2.1	Northern Mandalay to Center Road alignment (near Santa Clara River), all Mandalay to Center Road alignments (across Harbor Blvd from Reliant powerplant)
Sand-verbena-beach-bur-sage	G1, S1.1	All Mandalay to Center Road alignments (across Harbor Blvd from Reliant powerplant)
California walnut woodland	G2, S2.1	Line 3008 extension (near Balboa station)
Southern foredune	G2, S2.1	All Mandalay to Center Road alignments (adjacent to the Reliant powerplant)
<b>NDDB Rankings</b>		
G1	Less than 2,000 acres of this habitat exist worldwide, and the habitat is considered very threatened	
G2	2,000 to 10,000 acres of this habitat exist worldwide, and the habitat is considered very threatened.	
G3	Between 10,000 and 50,000 acres of this community remain worldwide, and the community is considered threatened.	
G4	Greater than 50,000 acres worldwide, apparently secure	
S1.1	Less than 2,000 acres of this habitat exist Statewide, and the habitat is considered very threatened	
S2.1	Between 2,000 to 10,000 acres of this habitat exist Statewide, and the habitat is considered very threatened.	
S3.2	Between 10,000 to 50,000 acres of this community remain statewide, and the community is considered threatened.	
S4	Greater than 50,000 acres Statewide, apparently secure	

### 7.6.1.5 Special-Status Plant Species

Special-status plant species are either listed as endangered or threatened under the Federal or California Endangered Species Acts, or rare under the California Native Plant Protection Act, or considered to be rare (but not formally listed) by resource agencies, professional organizations (California Native Plant Society), and the scientific community. For the purposes of this project, special-status plant species are defined in Table 7.6-2.

**Table 7.6-2. Definitions of Special-Status Plant Species**

Special-Status Plant Species
<ul style="list-style-type: none"> <li>➤ Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.12 for listed plants and various notices in the Federal Register for proposed species).</li> <li>➤ Plants that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (Federal Register Vol. 67, No. 114, pp. 40657-40679, June 13, 2002).</li> <li>➤ Plants that meet the definitions of rare or endangered species under the CEQA (<i>State CEQA Guidelines</i>, Section 15380).</li> <li>➤ Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Lists 1B and 2 in CNPS, 2001).</li> <li>➤ Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4 in CNPS, 2001).</li> <li>➤ Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 CCR 670.5).</li> <li>➤ Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.).</li> <li>➤ Plants considered sensitive by other Federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), State and local agencies or jurisdictions.</li> <li>➤ Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range</li> <li>➤ Native tree species protected under local ordinance (Ventura and Los Angeles counties)</li> </ul>

Spring botanical surveys were completed for the Mandalay-Center Road and eastern portion of the Line 225 Loop pipeline alignments. Due to seasonal and access constraints, spring botanical surveys were not conducted for the Line 324 Loop and Line 3008 Extension alignments. Literature research and field surveys conducted for this impact analysis indicates that seven plant species listed as endangered or threatened may occur in the vicinity of project components. In addition, 19 non-listed special-status plant species occur in the vicinity of project components. Table 7.6-3 provides a discussion of the current regulatory status and nearest known location of each species, relative to project components. Figures 7.6-1A-D illustrates the recorded occurrences (CNDDDB) of special status vegetation species along all pipeline alignments. A discussion of threatened and endangered plant species identified is provided below.

**California Orcutt grass (*Orcuttia californica*).** This plant is listed as Federal Endangered, State Endangered, and CNPS List 1B. It is an annual herbaceous species occurring in vernal pool habitat types. It blooms from April to August and occurs between 50 and 2,200 feet elevation. It is known from fewer than 20 occurrences and is threatened by agriculture, development, and non-native plants. There is one recorded occurrence within one mile of the pipeline alignment. The project site does not support vernal pool habitat, therefore it is not likely to occur on the project site.



**Table 7.6-3. Special-Status Plant Species Reported from the Vicinity of the Pipeline Alignments**

Common name	Status <sup>2</sup>	Mandalay to Center Road			324 Loop			225 Loop		3008 Extension
		Northern Alternative	Middle Alternative	Southern Alternative	Primary	Alternative 1	Alternative 2	Primary	Alternative	Primary
San Fernando valley spineflower	SE, FC, List 1B	1	1	1	4	3	3	1	1	2
Ventura marsh milk vetch	SE, FE, List 1B	1	1	1	1	1	1	1	1	1
Slender-horned spineflower	SE, FE, List 1B	1	1	1	3	3	3	1	1	3
Spreading navarretia	FT, List 1B	1	1	1	4	3	3	1	1	2
California Orcutt grass	SE, FE, List 1B	1	1	1	2	2	2	1	1	2
Nevin's barberry	SE, FE, List 1B	1	1	1	3	3	3	1	1	3
Salt marsh bird's beak	SE, FE, List 1B	1	1	1	1	1	1	1	1	1
Abram's oxytheca	List 1B	1	1	1	2	2	2	1	1	2
Dune larkspur	List 1B	1	1	1	3	3	3	1	1	3
Greata's aster	List 1B	1	1	1	3	3	3	1	1	3
Plummer's mariposa lily	List 1B	1	1	1	4	3	3	1	1	3
Rayless ragwort	List 2	1	1	1	3	3	3	1	1	3
Round-leaved filaree	List 2	1	1	1	3	3	3	1	1	3
Slender mariposa lily	List 1B	1	1	1	4	4	4	4	4	4
Coulter's goldfields	List 1B	1	1	1	2	2	2	1	1	2
Blochman's dudleya	List 1B	1	1	1	3	3	3	1	1	3
Red sand verbena	List 4	1	1	1	1	1	1	1	1	1

Table 7.6-3. (Continued)

Common name	Status*	Mandalay to Center Road			324 Loop			225 Loop		3008 Extension
		Northern Alternative	Middle Alternative	Southern Alternative	Primary	Alternative 1	Alternative 2	Primary	Alternative	Primary
Orcutt's pincushion	List 1B	1	1	1	1	1	1	1	1	1
Short-jointed beavertail cactus	List 1B	1	1	1	3	3	3	1	1	3
Catalina mariposa lily	List 4	1	1	1	3	3	3	1	1	3
Spiny rush	List 4	1	1	1	3	3	3	1	1	3
Lewis' evening primrose	List 3	1	1	1	3	3	3	5	5	3
Southern California black walnut	List 4	1	1	1	4	4	4	1	1	5
Pierson's morning glory	List 4	1	1	1	4	4	4	4	4	4
Parish's big sagebrush	TPO	1	1	1	4	3	3	2	2	2
Late-flowered mariposa lily	List 1B	1	1	1	4	3	3	2	2	2
Western sycamore	TPO	1	1	1	3	3	3	1	1	3
Valley oak	TPO	1	1	1	4	4	4	5	5	4
Coast live oak	TPO	1	1	1	5	5	5	5	5	5

Likelihood of Occurrence Codes:

- 1 Low/none - outside known distribution, no suitable habitat, or not found during spring field surveys
- 2 Low - within known distribution, no suitable habitat present
- 3 Moderate - within known distribution, suitable habitat present
- 4 High - reported from immediate vicinity, suitable habitat present
- 5 Present - observed during field surveys

\*Status

- FE Federal Endangered (USFWS)
- FT Federal Threatened (USFWS)
- FC Federal Candidate for Listing (USFWS)
- List 1B Plants rare, threatened, or endangered in California and elsewhere (CNPS)
- List 3 Plants about which we need more information-a review list (CNPS)
- List 4 Plants of limited distribution (CNPS)
- SE State Endangered (CDFG)
- SR State Rare (CDFG)
- TPO Protected under Ventura County or Los Angeles County ordinance

**Nevin's barberry (*Berberis nevinii*).** This plant is listed as Federal Endangered, State Endangered, and CNPS List 1B. It is an evergreen shrub species occurring in chaparral, woodland, and coastal scrub habitats in sandy or gravelly soils. It blooms from March to April and occurs between 1,000 and 3,000 feet elevation. There are no recorded occurrences within one mile of the pipeline alignment. This species may occur along the eastern portion of the Line 324 Loop and the Line 225 Loop alignments. However, it was not observed during the spring botanical survey of the Line 225 Loop alignment.

**Ventura marsh milk vetch (*Astragalus pycnostachyus* var. *lanosissimus*).** This plant is listed as Federal Proposed Endangered, State Endangered, and CNPS List 1B species. It is a perennial herbaceous species occurring in coastal dunes and coastal salt marsh habitat types. It blooms from June to October and occurs between 1 and 100 feet elevation. It was recently discovered in Oxnard and is only known from that one occurrence. There are no recorded occurrences within one mile of the pipeline alignments. This species was not observed during field surveys of suitable habitat (Mandalay-Center Road alignment), and is considered absent from the pipeline alignments.

**Slender-horned spineflower (*Dodecahema leptoceras*).** This plant is listed as Federal Endangered, State Endangered, and CNPS List 1B. It is an annual herbaceous species occurring in chaparral, woodland, and coastal scrub habitat types in sandy soils. It blooms from April to June and occurs between 650 and 2,500 feet elevation. It is threatened by development, sand and gravel mining, vehicles, and nonnative plants. There are no recorded occurrences within one mile of the pipeline alignment. This species may occur along the eastern portion of the Line 324 Loop and the Line 225 Loop alignments. However, it was not observed during the spring botanical survey of the Line 225 Loop alignment.

**Salt marsh bird's beak (*Cordylanthus maritimus* ssp. *maritimus*).** This plant is listed as Federal Endangered, State Endangered, and CNPS List 1B. It is an annual herbaceous species occurring in coastal dune and coastal salt marsh habitat types. It blooms from May to October and occurs between 0 and 100 feet elevation. It is threatened by vehicles and loss of salt marsh habitat. There are no recorded occurrences within one mile of the pipeline alignment. Due to lack of suitable habitat and negative findings during field surveys, salt marsh birds beak is considered absent from the pipeline alignments.

**San Fernando Valley spineflower (*Chorizanthe parryi* var. *Fernandina*).** This plant is listed as a Federal candidate for listing, a State Endangered species, and CNPS List 1B. It is an annual herb that prefers coastal or desert scrub. It blooms from April to June and occurs between 450 and 3,500 feet in elevation. This species was rediscovered in 1999. It is threatened by urbanization, with most of its historical habitat converted to urban land uses. San Fernando Valley spineflower has been reported in five general areas within the Newhall Ranch Specific Plan Area (Impact Sciences, 2006), and at a Magic Mountain expansion site near the Line 324 Loop alignment, and may occur along this alignment.

**Spreading navarretia (*Navarretia fossalis*).** This plant is listed as Federal Threatened and CNPS List 1B. It is an annual herb occurring chenopod scrub, marshes, swamps, playas,

and vernal pools. It blooms from April through June and occurs between 90 and 3,900 feet elevation. This species is threatened by urbanization, agriculture, road construction, grazing, flood control, and vehicles. Spreading navarretia is known from the Mint Canyon area, about 4 miles northeast of the Line 225 Loop, and from the Salt Creek Area (Dudek, 2006), approximately 0.7 miles south of the Line 324 preferred alignment. This species was not observed during spring botanical surveys of the Line 225 Loop and is considered absent from the pipeline alignments.

### 7.6.1.6 Special Status Wildlife Species

The following discussion provides an assessment of special-status wildlife species in the vicinity of the proposed onshore project site which includes the shoreline, riparian and upland regions. Information regarding special-status wildlife species is also presented and may overlap with the marine biological resources mentioned in Section 7.5.1.8 – Special Status Marine Species, and Appendix O.4 - Marine Wildlife Contingency Plan, respectively.

For the purposes of this project, special-status wildlife species are defined in Table 7.6-4. Literature research and field surveys conducted for this impact analysis indicates that 14 wildlife species listed as endangered or threatened may occur in the vicinity of project components. In addition, 36 non-listed special-status wildlife species occur in the vicinity of project components. Information regarding regulatory status and known location of these species relative to project components is provided in Table 7.6-5. Figures 7.6-1A-D illustrates the recorded occurrences (CNDDDB) of special status wildlife species along all pipeline alignments. Additional discussion of threatened and endangered wildlife species is provided below.

**Table 7.6-4. Definitions of Special-Status Wildlife Species**

Special-Status Animal Species
<ul style="list-style-type: none"> <li>➤ Animals listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species).</li> <li>➤ Animals that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (Federal Register Vol. 67, No. 114, pp. 40657-40679, June 13, 2002).</li> <li>➤ Animals that meet the definitions of rare or endangered species under the CEQA (<i>State CEQA Guidelines</i>, Section 15380).</li> <li>➤ Animals listed or proposed for listing by the State of California as threatened and endangered under the California Endangered Species Act (14 CCR 670.5).</li> <li>➤ Animal species of special concern to the CDFG (Remsen, 1978 for birds; Williams, 1986 for mammals).</li> <li>➤ Animal species that are fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).</li> </ul>

**Table 7.6-5. Special-Status Wildlife Species Reported from the Vicinity of the Pipeline Alignments**

Common name	Status <sup>2</sup>	Mandalay to Center Road			Line 324 Loop			Line 225 Loop		Line 3008 Extension
		Northern alternative	Middle alternative	Southern alternative	Primary	Alternative 1	Alternative 2	Primary	Alternative	Primary
<b>Invertebrates</b>										
Globose dune beetle	SA	2	2	2	1	1	1	1	1	1
Wandering skipper	SA	2	2	2	1	1	1	1	1	1
Monarch butterfly	SA	2	2	2	1	1	1	1	1	1
California brackish water snail	SA	2	2	2	1	1	1	1	1	1
Vernal pool fairy shrimp	FT	2	2	2	2	2	2	2	2	2
<b>Fish</b>										
Unarmored 3-spined stickleback	SE, FE	1	1	1	4	4	4	4	4	1
Santa Ana sucker	FT, CSC	4	1	1	4	4	4	4	4	1
Southern steelhead	FE, CSC	4	1	1	4	4	4	1	1	1
Tidewater goby	FE, CSC	4	1	1	1	1	1	1	1	1
Arroyo chub	CSC	4	1	1	4	5	5	4	4	1
<b>Amphibians</b>										
Southwestern arroyo toad	FE, CSC	1	1	1	4	4	4	4	4	1
Western spadefoot toad	CSC	1	1	1	4	4	4	2	2	2



Table 7.6-5. (Continued)

Common name	Status*	Mandalay to Center Road			Line 324 Loop			Line 225 Loop		Line 3008 Extension
		Northern alternative	Middle alternative	Southern alternative	Primary	Alternative 1	Alternative 2	Primary	Alternative	Primary
<b>Reptiles</b>										
Southwestern pond turtle	CSC	4	2	2	4	4	4	2	2	2
San Diego horned lizard	CSC	4	2	2	4	4	4	4	4	4
Coastal western whiptail	SA	2	2	2	4	3	3	3	3	3
Silvery legless lizard	CSC	4	4	4	3	3	3	3	3	3
San Diego mountain kingsnake	CSC	2	2	2	3	3	3	3	3	3
Coastal rosy boa	SA	1	1	1	3	3	3	3	3	3
San Bernardino ringneck snake	SA	1	1	1	3	3	3	3	3	3
Coast patch-nosed snake	CSC	1	1	1	3	3	3	3	3	3
Two-striped garter snake	CSC	4	2	2	3	4	4	2	2	2
<b>Birds</b>										
Light-footed clapper rail	SE, FE, P	2	2	2	1	1	1	1	1	1
California least tern	SE, FE, P (nesting)	2	2	2	1	1	1	1	1	1
Long-billed curlew	CSC	2	2	2	2	2	2	2	2	2
Western snowy plover	FT, CSC	2	2	2	1	1	1	1	1	1
Belding's savannah sparrow	SE	2	2	2	1	1	1	1	1	1

Table 7.6-5. (Continued)

Common name	Status <sup>2</sup>	Mandalay to Center Road			Line 324 Loop			Line 225 Loop		Line 3008 Extension
		Northern alternative	Middle alternative	Southern alternative	Primary	Alternative 1	Alternative 2	Primary	Alternative	Primary
California coastal gnatcatcher	FT, CSC	1	1	1	3	3	3	3	3	3
Least Bell's vireo	FE, SE	4	2	2	4	4	4	4	4	2
Cooper's hawk	CSC	2	2	2	4	4	4	4	4	3
Prairie falcon	CSC	4	2	2	5	4	4	4	4	4
Peregrine falcon	SE, P	2	2	2	3	3	5	3	3	3
White-tailed kite	SA, P	4	2	2	4	4	4	3	3	3
California spotted owl	CSC	2	2	2	4	4	4	3	3	3
Burrowing owl	CSC	2	2	2	5	4	4	3	3	3
Short-eared owl	CSC (nesting)	1	1	1	4	3	3	3	3	3
Long-eared owl	CSC (nesting)	2	1	1	4	3	3	3	3	3
Lawrence's goldfinch	BCC	1	1	1	4	3	3	3	3	3
Vermillion flycatcher	CSC (nesting)	2	1	1	4	3	3	3	3	3
Yellow warbler	CSC	3	2	2	3	4	4	3	3	2
Yellow-breasted chat	CSC	3	2	2	3	4	4	3	3	2
Western yellow-billed cuckoo	FC, BCC, SE	2	1	1	4	3	3	3	3	3

Table 7.6-5. (Continued)

Common name	Status*	Mandalay to Center Road			Line 324 Loop			Line 225 Loop		Line 3008 Extension
		Northern alternative	Middle alternative	Southern alternative	Primary	Alternative 1	Alternative 2	Primary	Alternative	Primary
Loggerhead shrike	CSC	2	2	2	4	4	4	4	4	4
California horned lark	CSC	2	2	2	4	4	4	4	4	4
Southern California rufous-crowned sparrow	CSC	2	2	2	4	4	4	4	4	4
Golden eagle	CSC, P	2	2	2	3	3	3	3	3	3
Northern harrier	CSC	2	2	2	5	4	4	3	3	3
California condor	FE, SE, P	2	2	2	4	4	4	3	3	3
Southwestern willow flycatcher	FE, SE	3	2	2	3	3	3	3	3	2
Great blue heron	SA (nesting)	3	2	2	2	4	4	2	2	2
Summer tanager	CSC	4	2	2	3	3	3	3	3	3
Bell's sage sparrow	CSC	2	2	2	3	3	3	3	3	3
Oak titmouse	SA	3	2	2	3	3	3	3	3	3
Tri-colored blackbird	CSC	3	2	2	2	3	3	2	2	2
<b>Mammals</b>										
Southern California saltmarsh shrew	CSC	2	2	2	1	1	1	1	1	1
San Diego desert woodrat	CSC	2	2	2	4	4	4	4	4	3
San Diego black-tailed jackrabbit	CSC	2	2	2	4	4	4	4	4	3
American badger	CSC	2	2	2	3	3	3	3	3	3

**Table 7.6-5. (Continued)**

Common name	Status*	Mandalay to Center Road			Line 324 Loop			Line 225 Loop		Line 3008 Extension
		Northern alternative	Middle alternative	Southern alternative	Primary	Alternative 1	Alternative 2	Primary	Alternative	Primary
Greater western mastiff bat	CSC	3	2	2	3	3	3	3	3	3
Pallid bat	CSC	3	2	2	4	3	3	3	3	3
Pocketed free-tailed bat	CSC	3	2	2	4	3	3	3	3	3
Spotted bat	CSC	2	2	2	4	4	4	4	4	3

Likelihood of Occurrence Codes:

- 1 Low/none - no recent reports from region, no suitable habitat near alignment
- 2 Low - reported from region, but no suitable habitat near alignment
- 3 Moderate - reported from region, suitable habitat near alignment
- 4 High - reported within 10 miles and suitable habitat near alignment
- 5 Present - observed during field surveys

\*Status

- FE Federal Endangered (USFWS)
- FT Federal Threatened (USFWS)
- FC Federal Candidate (USFWS)
- SA Special animal (CDFG)
- SE State Endangered (CDFG)
- CSC California Species of Special Concern (CDFG)
- P Protected under the California Fish and Game Code (CDFG)
- BCC Bird of Conservation Concern (USFWS)

Below is a list of the special status wildlife species that have been recorded within one mile of the pipeline alignments. For the likelihood of occurrence please refer to Table 7.6-5.

**Mandalay to Center Road (Figure 7.6-1A)**

- The northern alternative - western snowy plover, silvery legless lizard, California least tern, western yellow-billed cuckoo, San Diego horned lizard and least Bell's vireo have been recorded within one mile of the pipeline alignment.
- The middle alternative - western snowy plover, silvery legless lizard, California least tern, and horned lark have been recorded within one mile of the pipeline alignment.
- The southern alternative - western snowy plover, silvery legless lizard, California least tern, and horned lark have been recorded within one mile of the pipeline alignment.

**324 Loop (Figure 7.6-1B)**

- Primary alignment - San Diego horned lizard, western spadefoot, two-striped garter snake, coastal western whiptail, southwestern pond turtle, loggerhead shrike, short-eared owl, long-eared owl, southern California rufous-crowned sparrow, least Bell's vireo, Santa Ana sucker, white-tailed kite, Cooper's hawk, northern harrier, unarmored threespine stickleback, yellow warbler, yellow-breasted chat, badger and arroyo chub have been recorded within one mile of the pipeline alignment.
- Alternative 1 alignment - San Diego horned lizard, two-striped garter snake, least Bell's vireo, Santa Ana sucker, white-tailed kite, Cooper's hawk, unarmored threespine stickleback, yellow warbler, yellow-breasted chat, and arroyo chub have been recorded within one mile of the pipeline alignment.
- Alternative 2 alignment - San Diego horned lizard, two-striped garter snake, southwestern pond turtle, least Bell's vireo, Santa Ana sucker, white-tailed kite, Cooper's hawk, peregrine falcon, unarmored threespine stickleback, yellow warbler, yellow-breasted chat, and arroyo chub have been recorded within one mile of the pipeline alignment.

**225 Loop (Figure 7.6-1C)**

- The primary alignment - San Diego horned lizard, arroyo chub, unarmored threespine stickleback, white-tailed kite, Cooper's hawk, western spadefoot, and arroyo toad have been recorded within one mile of the pipeline alignment.
- The alternative alignment - San Diego horned lizard, arroyo chub, unarmored threespine stickleback, white-tailed kite, Cooper's hawk, western spadefoot, and arroyo toad have been recorded within one mile of the pipeline alignment.



### 3008 Extension (Figure 7.6-1D)

- San Diego desert woodrat and least Bell's vireo have been recorded within one mile of the pipeline alignment.

**Vernal pool fairy shrimp (*Branchinecta lynchi*).** This shrimp is a federally listed endangered species. Vernal pool fairy shrimp occurs through much of the Central Valley and as far south as the Santa Rosa Plateau in Riverside County. This species occurs in two types of vernal pools; pooled water held in small depressions in sandstone outcrops surrounded by foothill grasslands; and ponded water in small swales or depression basins with grassy or muddy bottoms in unplowed grasslands (Eriksen and Belk, 1999). There are no recorded occurrences within one mile of the pipeline alignment.

**Steelhead (*Oncorhynchus mykiss*).** The Southern California steelhead Evolutionarily Significant Unit (ESU) was listed as an endangered species in August 1997 (62 FR 43937). As discussed in the final listing determination, this ESU is considered to be at a high risk of extinction based on the results of the National Marine Fisheries Service (NMFS) West Coast Steelhead Status Review (Busby et al., 1996). Historically, steelhead occurred as far south as northern Baja California. Estimates of pre-1960s abundance for several rivers in this ESU (i.e., Santa Ynez, Ventura, Santa Clara, Malibu Creek) suggest that individual steelhead populations numbered in the thousands of individuals. Published historic annual spawning estimates for the Santa Clara River, for example, ranged from 7,000-9,000 fish. At the time of NMFS' final listing determination in 1997, the total run size for several streams in the ESU (e.g., Santa Ynez, Ventura River, Santa Clara River, Malibu Creek) was estimated to number fewer than 200 individuals each.

Recent information regarding steelhead abundance for the Santa Ynez, Ventura, and Santa Clara Rivers suggests that the abundance estimates made at the time of the final listing determination were probably high. The recent capture of juvenile and adult steelhead in fish traps at the Freeman Diversion indicates steelhead are currently spawning in the Santa Clara River system (likely in Sespe Creek).

**Unarmored 3-spined stickleback (*Gasterosteus aculeatus williamsoni*).** This fish is a federally listed endangered species. It is a small (up to 2.5 inches) laterally compressed fish characterized by three dorsal spines that inhabits slow moving reaches of streams and rivers with dense and abundant vegetation or in stream habitat (algal mats, rocks, and snags) in open waters. The species feeds principally on insects, small crustaceans, and snails. They reproduce throughout the year in areas with adequate aquatic vegetation and gentle flow of water where males establish and vigorously defend territories.

Following spawning, the male defends the nest and the newly hatched fry for about six days. Unarmored 3-spined sticklebacks are believed to live for only one year (USFWS, 1985). The species historically were distributed throughout southern California but are now restricted to the upper Santa Clara River and its tributaries in Los Angeles and Ventura counties, and



Canada Honda and San Antonio Creeks on Vandenberg AFB, Nojoqui Creek in Santa Barbara County, Shay Creek in San Bernardino County, and San Felipe Creek in San Diego County. Unarmored 3-spined stickleback occurs in the Santa Clara River near the proposed Line 225 Loop and Line 324 Loop.

**Santa Ana sucker (*Catostomus santaanae*).** This fish is a federally listed threatened species and a California species of special concern. Usually found in pools and runs of small to medium-sized (less than 7 m wide), shallow streams (creeks and small to medium rivers) with cool unpolluted water. Generally associated with coarse substrates of boulder, rubble, and sand, but sometimes occurs on sand/mud bottom. Breeding occurs from March or April through early July with peak activity in late May-early June (Greenfield et al. 1970). Santa Ana sucker occurs in the Santa Clara River near the Mandalay-Center Road northern alternative, proposed Line 225 Loop and Line 324 Loop.

**Tidewater goby (*Eucyclogobius newberryi*).** This fish is a federally listed endangered fish and California species of special concern that inhabits brackish water habitats along the California coast. It is a small fish rarely exceeding 5.1 cm (2.0 in) in length, and all life stages occur in the upper end of lagoons with salinities ranging from 5 to 20 parts per thousand (ppt). They lack a marine phase, and estuaries with a more permanent ocean connection and higher salinities (20-30 ppt) often do not support tidewater gobies. They occur in coastal streams that create deposition berms that dam the mouths of the estuaries for the majority of the year. The presence of the berms results in lower salinities due to the reduction of exchange flows with the ocean, and increases the amount of suitable spawning and rearing habitat. Tidewater goby occurs in the Santa Clara River estuary near the Mandalay-Center Road northern alternative pipeline alignment.

**Southwestern arroyo toad (*Bufo californicus*).** This amphibian is a federally listed endangered species and a California species of special concern. Often found near rivers with sandy banks, willows, cottonwoods, and sycamores in valley-foothill and desert riparian habitats. Found in loose gravelly areas of streams in drier portions of its range. Breeding season is primarily from March to July, sometimes to September. It was formerly found in rivers with near-perennial flow throughout southern California between San Luis Obispo and San Diego counties. Populations persist in Santa Barbara, Ventura, Los Angeles, Riverside, and San Diego counties. Arroyo toad has been found along the Santa Clara River (near Interstate 5) in the general vicinity of proposed Line 225 Loop and Line 324 Loop alignments (NDDB, 2006).

**California condor (*Gymnogyps californianus*).** This bird is a state and federally listed endangered species. The California condor is North America's largest land bird, with a wingspan exceeding 9 feet. Currently the condors range is restricted to mountain and foothill rangeland and forest habitats in a U-shaped range north from northern Los Angeles County to San Luis Obispo County in the Coast Range and to Tulare County in the western Sierra Nevada. Nesting sites have been mainly on cliffs in the southern part of this range, with foraging areas primarily in the foothills, where the condors feed on carrion, typically cattle and



deer. The breeding season occurs from February through May. This species has been re-introduced to the region and may forage in the vicinity of the Line 324 Loop.

**Western Snowy Plover (*Charadrius alexandrinus nivosus*).** The Western snowy plover is designated as "Federal Threatened", and "California Species of Special Concern". This subspecies of snowy plover occurs on coastal beaches from Washington to Baja California. Locally, Mandalay Beach (Channel Islands harbor to the Santa Clara River mouth) is included as critical habitat for the western snowy plover. Western snowy plover uses the Mandalay Beach for nesting/breeding and foraging. Nesting sites can be found April through August, while foraging is year-round. Snowy plover nests consist of a shallow depression which is either surrounded with driftwood, rocks, or bushes or it may be entirely in the open (Zeiner et. al 1990). Western snowy plovers are known to nest at Mandalay State Beach and McGrath State Beach, with the closest nesting site at the southern end of McGrath Lake. Breeding birds at Mandalay Beach vary from 9 to 70 adults, with wintering birds numbering from approximately 28 to 33 adults. The target species recovery goal is 60 breeding adults at Mandalay Beach (U.S. Fish and Wildlife Service, 2001). During the breeding season, adults generally do not wander far from the nest (Zeiner et. al 1990), and this population may forage within the proposed project area (Padre, 2001). Western snowy plover feed by gleaning insects and amphipods from the dry sand of upper beaches, and may occasionally forage in wet sand for sand crabs. From the Mandalay Receiving Station facility, the Mandalay-Center Road pipeline alignments would avoid suitable habitat for western snowy plovers.

**Belding's savannah sparrow (*Passerculus sandwichensis beldingi*).** This bird is a California listed endangered species. This species occurs primarily in grassland, saline emergent wetland, and wet meadow habitats. Belding's savannah sparrow lives year-round in southern coastal wetlands. Adverse impacts have included filling, dredging, and development of wetlands, loss of regular tidal connection with the ocean, and inconsistent tidal influence on upper marsh habitat. There are no recorded occurrences within one mile of the pipeline alignment. Belding's savannah sparrow nests at McGrath State Beach, with 12 breeding pairs recorded in 1977, zero pairs in 1986 and one pair in 1991 (James and Stadlander, 1991). The upland pipeline alignments do not support coastal salt marsh habitat; therefore, this species is not likely to occur here.

**California least tern (*Sterna antillarum browni*).** This species is designated as "Federal Endangered", "California Endangered" and "California Fully Protected". The California least tern is a migratory species that usually arrives in California breeding territories in late April. This species forages for small epipelagic fish (anchovy, atherinids, and shiner surfperch) within estuaries, lagoons and nearshore waters. Least terns are present at nesting colonies from April through August. Preferred nesting habitat for this species is open or sparsely-vegetated, sandy or gravelly shores, located near shallow-water feeding areas, which are relatively free of human or predatory disturbance. This species abandons nesting areas readily if disturbed. Courtship typically occurs at beaches near the nesting colonies (Zeiner et al., 1990). McGrath Lake supports a breeding colony, and is an important post-breeding stopover for a large number of northern least tern breeding colonies during migration. In 2000, 16 nesting pairs were recorded

at McGrath Lake and produced 3 fledglings. This species may forage within the vicinity of the Project Site near the Mandalay Generating Station.

**Southwestern willow flycatcher (*Empidonax traillii extimus*).** This bird is a state and federally listed endangered species that breeds in riparian deciduous shrub habitat in the United States and Canada, primarily in willows. It is a common spring and fall migrant at lower elevations particularly riparian areas, throughout California and southwestern United States. Typical habitat includes a complex structural configuration of mostly willows, however there habitat can contain arrowweed, buttonbrush and an overstory of cottonwood (Federal Register, 1995a). They have also been reported from small lakes or ponds surrounded by willows with a fringe of meadow or grassland, to willow lined streams, grasslands, or boggy areas. Willow flycatchers forage by gleaning insects from trees, shrubs, and herbaceous vegetation, or hawking larger insects. This species is occasionally observed along the Santa Clara River (Fillmore area) near the Line 324 Loop alignment, but breeding has not been confirmed in recent decades.

**Least Bell's vireo (*Vireo bellii pusillus*).** This bird is a state and federally listed endangered species that only occurs in coastal California. It leaves for its fall migration mid September. This bird nests in the edges of riparian scrub, and dense willow dominated habitat with a thick understory. It can be found approximately 9 to 198 m (30 to 650 ft) from the water's edge, and 1 to 2.5 m (3 to 8 ft) above ground. The least Bell's vireo is an insectivorous bird; gleaning insects off the leaves is its main forage method. The loss of riparian habitat and increased parasitism by the Brown-headed cowbird (*Molothrus ater*) are the two main causes for the decline in population of the least Bell's Vireo. This subspecies arrives at its breeding grounds in southern California around mid-March to early April. Least Bell's vireo nests along the Santa Clara River (Oxnard to Santa Clarita) near the Mandalay-Center Road northern alternative, and the Line 225 Loop alignments and Line 324 Loop alternate alignments.

**Yellow-billed cuckoo (*Coccyzus americanus*).** This bird is a state and federally listed endangered species. The yellow-billed cuckoo is an uncommon to rare summer breeder of valley foothill and desert riparian habitats in California. It nests in dense deciduous riparian thickets or forests with dense, low-level or understory foliage, adjacent to slow-moving rivers, backwaters, or please refer tops. Willow is usually a dominant nesting tree; however the species is also known to nest in orchards. It feeds by gleaning large insects from foliage, but will sometimes preys on frogs or lizards, or feeds on fruit. The species departs California in fall for South America. There is one recorded historic occurrence within one mile of the pipeline alignments. However, this species has not been recorded in the region for decades and is considered absent from the pipeline alignments.

**Coastal California gnatcatcher (*Polioptila californica californica*).** This bird is listed as federally threatened species and is a California Species of Special Concern. This small, non migratory, insectivorous songbird that occurs almost entirely in coastal sage scrub (rarely, it is also found in chaparral) and is threatened by habitat loss and fragmentation occurring in conjunction with urban and agricultural development. The breeding season of the coastal California gnatcatcher extends from late February through July with the peak of nest activity



occurring from mid-March through mid-May. The nearest known occurrence is approximately 7 miles east of the 225 Loop. This species may occur along the Line 225 Loop, Line 324 Loop and Line 3008 Extension alignments.

**Light-footed clapper rail (*Rallus longirostris levipes*).** This bird is a state and federally listed endangered species. Populations of this species breed in marsh vegetation of coastal wetlands from Santa Barbara County to San Diego County and northern Baja California. These populations inhabit cordgrass-pickleweed salt marsh year-round, feeding primarily on crabs, snails, and other intertidal invertebrates. The amount of suitable habitat available to this subspecies across its entire range is about one-third of that which existed historically. The total population of the subspecies, both in its entire range and in its range in California, represents one of the smallest known populations of any bird subspecies on the west coast of North America. Breeding occurs from mid-March through July, with peak activity in early May and late June. This species occurs in Mugu Lagoon, mostly in the western arm of the Lagoon (Onuf, 1987). Since 1983, 1 to 7 pairs of light-footed clapper rail have been found each breeding season in Mugu Lagoon. The pipeline alignments would not traverse salt marsh habitat; therefore, this species is considered absent.

**Peregrine falcon (*Falco peregrinus anatum*).** This species is a California endangered and fully protected species, and federal de-listed endangered species. This species inhabits open wetlands near cliffs, and preys chiefly on birds. Peregrine falcons have also become established in cities; nesting on bridges and tall buildings. Peregrine falcon has been observed by Padre at Santa Paula Airport in 2006, and may occur along the Line 225 and Line 324 Loop alignments.

## 7.6.2 Regulatory Setting

### 7.6.2.1 Federal

**Species Protection.** The federal Endangered Species Act (FESA), administered by the U.S. Fish and Wildlife Service (USFWS) and NOAA Fisheries (formerly the National Marine Fisheries Service), provides protection to species listed as Threatened (FT) or Endangered (FE), or proposed for listing as Threatened (PFT) or Endangered (PFE). The federal government also maintains lists of species that are neither formally listed nor proposed, but may be listed in the future. Federal candidate species (FC) include taxa for which substantial information on biological vulnerability and potential threats exists, and are maintained in order to support the appropriateness of proposing to list the taxa as an endangered or threatened species. Federal species of concern (FSC) comprise those species that should be given consideration during planning for projects.

Section 9 of FESA prohibits the "take" of any member of a listed species. Take is defined as, "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Harass is "...an intentional or negligent act or omission that creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns that include, but are not limited to, breeding,





*feeding, or sheltering". Harm is defined as "...significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering."*

Projects that would result in the take of a federally listed or proposed species are required to consult the USFWS and/or NOAA Fisheries. The objective of consultation is to determine whether the project would jeopardize the continued existence of a listed or proposed species, and to determine what mitigation measures would be required to avoid jeopardy. Consultations are conducted under Sections 7 or 10 of FESA depending on the involvement by the federal government.

Under Section 7, the Services are authorized to issue Incidental Take Permits (ITP) for the take of a listed species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the federal agency. The ITP includes measures to minimize the take. Section 7 requires federal agencies to make a finding on all federal actions, including the approval by an agency of a public or private action, such as the issuance of a federal permit (e.g., Section 10/404 of the Clean Water Act), projects conducted on federal lands, or projects receiving federal funding, on the potential to jeopardize the continued existence of any listed or proposed species potentially impacted by the action.

Depending on the potential impact on listed species, one of three consultation methods is employed. First, if the lead federal agency determines that no "take" will occur, it can voluntarily notify the Services with a "no effect determination" letter and the Services may or may not respond. Second, an "informal consultation" involves submission of a letter to Services by the lead federal agency indicating that a project is "not likely to adversely affect" a listed species. In turn, the Services issue a concurrence letter to the lead agency. Third, a "formal" consultation is conducted between the lead agency and the Services when a "take" of a listed species will occur. This results in the issuance of a Biological Opinion by the Services to the lead agency. The biological opinion identifies "take" limits and terms and conditions that must be adhered to by the lead agency to be in compliance with FESA. In some instances, the Services will issue jeopardy opinions if it is determined the continued existence of a species would be jeopardized. Such a finding will result in the denial of a project or action.

A Biological Assessment is usually required as part of the Section 7 consultation to provide sufficient information for the Services to fully determine the project's potential to affect threatened or endangered species. The Services must make one of three possible findings for each species potentially affected:

- **No effect:** The proposed action will not affect the listed species or critical habitat.
- **Not likely to adversely affect:** Effects of construction on the listed species are expected to be discountable (extremely unlikely to occur), insignificant (minimal impact without take), or beneficial; and

- **Likely to adversely affect:** An adverse effect may occur as a direct or indirect result of the proposed action, and the effect is not discountable, insignificant, or beneficial

Section 10 consultation is conducted when there is no federal involvement in a project except compliance with FESA. If a project or action has no federal nexus and the “take” of a listed species will occur, the non-federal project proponent must coordinate with and request technical assistance from the Services under Section 10 of the FESA. This requires the non-federal entity to prepare a Habitat Conservation Plan that must be approved by the Services in the form of the issuance of a Section 10(a) ITP. This permit authorizes the incidental “take” of a listed species if the take is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. The permit identifies mitigation and monitoring requirements that the permittee must adhere to and “take” limits. As with jeopardy opinions mentioned above, the Services will not issue Section 10(a) permits if they determine the continued existence of a species would be jeopardized by a particular project or action. Depending on take/potential take of listed species, the Services may alternately approve a low-effect HCP in the form of an internal Environmental Action Statement.

The USFWS also administers the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) and the Bald Eagle and Golden Eagle Protection Act (16 USC 668-688). The focus of the MBTA was the “Establishment of a federal prohibition, unless permitted by regulations, to pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention for the protection of migratory birds, or any part, nest or egg of any such bird” (16 USC 703). Implementing regulations at 50 CFR 10 list the migratory birds covered under the MBTA.

The MBTA prevents the removal of trees, shrubs, and other structures containing active nests of migratory bird species that may result in the loss of eggs or nestlings. Adherence to construction windows either before the initiation of breeding activities or after young birds have fledged is an active step to protect migratory birds and comply with the MBTA.

The Bald Eagle and Golden Eagle Protection Act prohibits the taking or possession of bald and golden eagles, their eggs, or their nests without a permit from the USFWS.

**Regulated Waters and Wetlands.** The term wetland is used to describe a particular landscape characterized by inundation or saturation with water for a sufficient duration to result in the alteration of physical, chemical, and biological elements relative to the surrounding landscape. Wetland areas are characterized by prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands provide habitats that are essential to the survival of many threatened or endangered species as well as other wetland dependent species. Wetlands also have value to the public for flood retention, storm abatement, aquifer recharge, water quality improvement, and for aesthetic qualities.

Wetlands also play a role in the maintenance of air and water quality and contribute to the stability of global levels of available nitrogen, atmospheric sulfur, carbon dioxide, and methane (Mitsch and Gosselink, 1986). Wetlands are rapidly declining within California and efforts are being made to maintain and preserve remaining wetlands within California. Historically, Southern California had extensive wetlands with significant freshwater inflow. Approximately 90 percent have been destroyed, leaving few isolated wetlands comprising fragmented wetland habitat.

Regulatory agencies with jurisdiction over wetlands include the U.S. Army Corps of Engineers (Corps) with authority to enforce two Federal regulations involving wetland preservation; the Clean Water Act (Section 404), which regulates the disposal of dredge and fill materials in waters of the U.S., and the Rivers and Harbors Act of 1899 (Section 10), which regulates diking, filling, and placement of structures in navigable waterways. State regulatory agencies with jurisdiction over wetlands include the State Water Quality Control Board that enforces compliance with the Federal Clean Water Act (Section 401) regulating water quality; the California Coastal Commission, which regulates development within the coastal zone as stipulated in the California Coastal Act (Sections 30230, 30231, 30233, and 30240 apply to preservation and protection of wetlands); and the California Department of Fish and Game, which asserts jurisdiction over waters and wetlands with actions that involve alterations to streams or lakes by issuing Streambed Alteration Agreements under Section 1600 of the Fish and Game Code.

Definitions. As defined by the Corps at 33 CFR 328.3(a) (3), “water of the United States” are those that 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; tributaries and impoundments to such waters; all interstate waters including interstate wetlands; and territorial seas. Based on the recent U.S. Supreme Court decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (2001), and guidance from the U.S. Army Corps of Engineers and U.S. Environmental Protection Agency (2001), the Federal government no longer asserts jurisdiction over isolated waters and wetlands under Section 404 of the Clean Water Act based on the “migratory bird rule”. Further guidance on the issue of isolated wetlands and waters is expected [U.S. Army Corps of Engineers, 2001]).

Under Corps and U.S. Environmental Protection Agency (EPA) regulations, wetlands are defined as: *“those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”*

In non-tidal waters, the lateral extent of Corps jurisdiction is determined by the ordinary high water mark (OHWM) which is defined as the: *“...line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.”* (33 CFR 328[e]).

In tidal waters, the Corps' jurisdiction under Section 404 of the Clean Water Act extends to the high tide line (HTL), which, in the absence of actual data, is defined as *"...a line of oil or scum along shore objects, a more or less continuous deposit of fine shells or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide."*

The Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service, is responsible for identifying waters, including wetlands, on agricultural lands and associated non-agricultural lands pursuant to the Food Security Act of 1985 (PL 99-198), the Food, Agricultural, Conservation, and Trade Act of 1990 (PL 101-624), the Federal Agricultural Improvement and Reform Act of 1996, and the 1994 Interagency Memorandum of Agreement (U.S. Department of Agriculture, 1994). Agricultural land is defined by the National Food Security Act Manual (U.S. Department of Agriculture, NRCS, 1996) as *"...land that is intensively used and managed for the production of food and fiber. Examples are cropland, hayland, and pastureland, including native pastures and rangeland, orchards, vineyards, areas which support wetland crops, other lands used to produce or support the production of livestock and small tree farms."* On sites that qualify as agricultural land, the wetland delineations are verified by NRCS, but Section 404 permits are still issued by the Corps.

The U.S. Fish and Wildlife Service and CDFG define wetlands as: *"...lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For the purposes of this classification, wetlands must have one or more of the following attributes: 1) at least periodically, the land supports predominantly hydrophytes; 2) the substrate is predominantly undrained hydric soil; and 3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season each year."*

#### 7.6.2.2 State

**California Coastal Act.** Applicable Sections from the California Coastal Act pertaining to onshore biological resources within the Coastal Zone are listed below:

- Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.
- Section 30233. 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.

- Section 30240. 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. 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.

**Wetland Regulation.** Pursuant to Section 1601 of the California Fish and Game Code, CDFG requires a Lake or Streambed Alteration Agreement (SAA) between CDFG and any state or local governmental agency or public utility before the initiation of any construction project that will: 1) divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake; 2) use materials from a streambed; or 3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake.

The California Fish and Game Commission adopted a modification of the USFWS definition of wetlands on March 9, 1987 as its principal means of wetland identification in conjunction with on-site inspections for implementation of the Fish and Game Commission's policy (Rollins, 1987). Unlike the USFWS, the CDFG definition only requires the presence of one wetland indicator for an area to qualify as a wetland. CDFG does not have a wetland regulatory program, but advises other state agencies on wetland issues.

Pursuant to Section 401 of the Clean Water Act, the Corps cannot issue a federal permit under Section 404 until the State of California first issues a water quality certification or waiver to ensure that a project will comply with state water quality standards. The authority to issue water quality certifications and waivers in the project area is vested with the Regional Water Quality Control Board (RWQCB).

**Species Protection.** The CDFG administers a number of laws and programs designed to protect the state's fish and wildlife resources. Principal of these is the California Endangered Species Act of 1984 (CESA - Fish and Game Code Section 2050), which regulates the listing and take of state endangered (SE) and threatened species (ST). Under Section 2081 of CESA, CDFG may authorize the take of an Endangered and/or Threatened species, or candidate species by a permit or Memorandum of Understanding (MOU) for scientific, educational, or management purposes.

CDFG maintains lists of Candidate-Endangered species (SCE) and Candidate-Threatened species (SCT). These candidate species are afforded the same level of protection as listed species. CDFG also designates Species of Special Concern (CSC) that are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species, but may be added to official lists in the future. The CSC list is intended by CDFG as a management tool for consideration in future land use decisions.

CDFG administers other state laws designed to protect wildlife and plants. Under Section 3511 of the California Fish and Game Code, CDFG designates species that are afforded “fully protected” (FP) status. Under this protection, designated species can only be taken or possessed with a permit. Section 3503.5 of the California Fish and Game Code protects all birds-of-prey (Falconiformes and Strigiformes), their eggs, and their nests.

CDFG manages the California Native Plant Protection Act of 1977 (Fish and Game Code Section 1900, et seq), which was enacted to identify, designate and, protect rare plants. In accordance with CDFG guidelines, California Native Plant Society (CNPS) 1B list plants are considered “rare” under the Act, and are evaluated in California Environmental Quality Act (CEQA) reports.

**Oak Woodland Protection.** California Senate Concurrent Resolution No. 17 (1989) is a Senate resolution concerning the protection of native oak trees and oak woodlands. The resolution, which was concurred upon by the California Assembly, requested that ... “all state agencies having land use planning duties and responsibilities...to assess and determine the effects of their land use decisions or actions within any oak woodlands” and that agencies ... “preserve and protect native oak woodlands to the maximum extent feasible ... or provide for replacement plantings where designated oak species are removed from oak woodlands”.

The California Oak Woodlands Conservation Act (SB 1334) provides a number of mitigation standards required for impacts to oak woodlands considered under CEQA. Mitigation standards include the following:

- Conserve oak woodlands, through the use of conservation easements.
  - (A) Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.
  - (B) The requirement to maintain trees pursuant to this paragraph terminates seven years after the trees are planted.
  - (C) Mitigation pursuant to this paragraph shall not fulfill more than one-half of the mitigation requirements for the project.
  - (D) The requirements imposed pursuant to this paragraph also may be used to restore former oak woodlands.
- Contribute funds to the Oak Woodlands Conservation Fund.

### 7.6.2.3 Local

**Ventura County.** The County’s General Plan Goal 1.5.1 states “Preserve and protect significant geological resources in Ventura County from incompatible land uses and development.” Significant biological resources include endangered, threatened or rare species and their habitats, wetland habitats, coastal habitats, wildlife migration corridors and locally important species/communities.” The County of Ventura General Plan Policy 1.5.2 has specific policies pertaining to endangered, threatened, and rare species that states:



- Discretionary development which could potentially impact biological resources shall be evaluated by a qualified biologist to assess impacts and, if necessary, develop mitigation measures.
- Discretionary development shall be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources. If the impact can not be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.
- The California Department of Fish and Game, the U.S. Fish and Wildlife Service, National Audubon Society and the California Native Plant Society shall be consulted when discretionary development may affect significant biological resources. The national Park Service shall be consulted regarding discretionary development within the Santa Monica Mountains or Oak Park Area.

Wetlands. The Ventura County General Plan Goals, Policies and Programs document defines wetlands as: “...lands transitional between terrestrial and aquatic systems where the water Table is usually at or near the surface or the land is covered by shallow water. The frequency of occurrence of water is sufficient to support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands include marshes, bogs, sloughs, vernal pools, wet meadows, river and stream overflows, mudflats, ponds, springs and please refer tops.”

Tree Protection (Sec. 8107-25). No person shall alter, fell, or remove a Protected Tree except in accordance with the provisions of Section 8107-25 et seq. If tree alteration, felling, or removal is part of a project requiring a discretionary permit, then the tree permit application and approval process may accompany the parent project discretionary permit. If a person applies to alter, fell, or remove a Protected Tree located in an area subject to an area plan or project related conditions (e.g., subdivisions and conditional use permits) which include requirements more stringent than the subject ordinance requirements, the stricter requirements shall prevail in establishing the conditions of approval for a tree permit.

**City of Fillmore.** Applicable policies regarding terrestrial biological resources within the City of Fillmore General Plan Conservation/Open Space Element (1988) are as follows:

- IV-1** Site-specific biological reviews shall be required of development proposals within the Significant Habitat Overlay District. The review shall specifically address sensitive natural habitats, riparian and aquatic habitats, and wildlife migration corridors.
- IV-16** Native vegetation shall be preserved as much as possible during site development. Where site development occurs adjacent to natural communities, fire retardant and native vegetation shall be used in landscaped areas.
- IV-18** All removal of riparian vegetation shall be replaced on a ratio of not less than 3 to 1, or other ratio as approved by the California Department of Fish and Game.



**City of Santa Paula.** Applicable goals and policies regarding terrestrial biological resources within the City of Santa Paula General Plan Conservation and Open Space Element (1998) are as follows:

Goals

**5.1** - Rare and endangered plants and animals and their habitat should be protected as required by Federal and State law.

**5.2** - Development should be compatible with and have minimal adverse impacts upon the environment and natural resources and should not be wasteful of scarce land.

**5.3** - Hazards to natural resources should be controlled or eliminated, including but not limited to: invasive non-native plants and animals, pollution, incompatible activities or land uses.

**5.5** - Riparian habitat should be protected and enhanced.

**5.6** - Native woodlands should be protected and preserved for their aesthetic value and for wildlife habitat.

**5.7** - The urban forest should be protected and enhanced.

**5.8** - The diversity of native plant species and their habitats should be encouraged.

Policies

**5.a.a** - Prevent the misuse and/or degradation of natural resources

**5.b.b** - Oak woodlands shall be protected and preserved for their own value and for wildlife habitat and aesthetic purposes.

**5.c.c** - The urban forest should be maintained and protected.

**5.d.d** - Fish and their habitat in the river and creek must be protected.

**5.e.e** - The diversity of native plant species and their habitats should be protected and invasive, non-native species should be eradicated whenever possible.

**5.f.f** - Rare and endangered plants and animals and their habitat must be protected as required by Federal and State law.

**5.g.g** - Riparian and oaks woodland habitat should be protected and enhanced.

**5.h.h** - Native trees should be protected. For the removal of trees that cannot be avoided, trees shall be replaced at a specific replacement ratio to be defined by the City.

**Los Angeles County.** Under the Los Angeles County Ordinance, a person shall not cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak tree genus, which is 8" or more in diameter four and one-half feet above mean natural grade or in the case of oaks with multiple trunks combined diameter of twelve inches or more of the two largest trunks, without first obtaining a permit.

**City of Santa Clarita.** Applicable goals regarding terrestrial biological resources within the City of Santa Clarita General Plan Conservation and Open Space Element (1999) are as follows:

- **Goal 3** - To protect significant ecological resources and ecosystems, including, but not limited to sensitive flora and fauna habitat areas.

### 7.6.3 Significance Criteria

The following significance thresholds are taken from the California Environmental Quality Act Guidelines and have been adopted for the proposed project:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service;
- Have a substantial adverse effect on non-Corps-defined wetlands or a sensitive natural community identified in local or regional plans, policies, regulation, or by the California Department of Fish and Game, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service;
- Have a substantial adverse effect on Corps-defined 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 site;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan;
- Conflict with any local polices or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- Substantially degrade the quality of the environment, substantially reduce 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.

## 7.6.4 Impact Analysis and Mitigation

### 7.6.4.1 Loss of Vegetation during Pipeline Installation or Operational Activities

Loss of vegetation associated with onshore construction and operation of each primary and alternative alignments are discussed below. Table 7.6-5 provides a summary of vegetation that may be adversely affected during pipeline installation activities. Table 7.6-6 provides a summary of the potential for loss of vegetation due to valve station expansion and/or operation.

**Pig Receiver/Launch Station.** This facility would be located within the existing Reliant Energy Mandalay Generating Station, such that vegetation removal would be limited to ruderal species (Table 7.6-5).

**Mandalay to Center Road Pipeline Alignment.** This alignment begins at the landfall site, where the pipeline arrives onshore adjacent to the Southern California Gas Company (SCGC) Gas Receiving and Metering Station (within Reliant Energy Mandalay Generating Station). The pipeline landfall would be installed using directional-drilling techniques to install the pipeline under the beach and surf zone, extending about 3,500 feet into the ocean. Therefore, impacts to vegetation at Mandalay Beach associated with pipeline installation would be avoided. Both directional-drilling activities and construction and operation of the proposed gas receiving facility would occur within the existing Reliant Energy Mandalay Generating Station, and no vegetation removal would be required.

**Table 7.6-5. Plant Community Occurrence within the Pipeline Installation Disturbance Corridors**

	Disturbed/Developed	Agriculture	Landscaping	Grassland	Windrows	Dune scrub	Coastal sage scrub	Mixed chaparral	Chamise chaparral	Southern Cottonwood riparian	Southern willow riparian scrub	Oak savanna	Oak woodland	California walnut woodland	Scalebroom
<b>Mandalay to Center Road</b>															
Northern alternative	59.9	38.5	5.1	-	2.4	3.1	-	-	-	1.5	3.7	-	-	-	-
Middle alternative	68.0	49.8	3.3	-	1.4	3.1	-	-	-	-	-	-	-	-	-
Southern alternative	78.9	40.5	1.9	-	-	3.1	-	-	-	-	-	-	-	-	-
<b>Line 324 Loop</b>															
Primary route (Blue)	47.5	79.6	-	35.0	-	-	110.3	34.5	3.1	-	-	5.1	22.8	-	0.4
Alternative 1 (Blue-Red-Blue)	81.8	158.6	0.6	35.0	0.4	-	57.2	20.8	-	-	1.1	2.2	-	-	-
Alternative 2 (Green-Red-Blue)	129.2	175.3	3.3	30.8	0.4	-	11.8	20.8	-	-	1.8	2.2	-	-	-
<b>Line 225 Loop</b>															
Primary route	43.3	-	7.3	-	-	-	11.5	4.0	-	-	2.8	-	-	-	-
Alternative route	40.3	-	5.4	-	-	-	12.1	4.0	-	-	2.0	-	-	-	-
<b>Line 3008 Extension</b>															
Primary route	37.0	-	0.9	-	-	-	3.5	-	-	-	0.9	-	2.9	0.8	-

\* All vegetation area is denoted in acres.

**Table 7.6-6. Impacts to Existing Footprint Due to Valve Station Expansion for Onshore Pipeline Alignments**

Station	Alignment Location	Permanent Impact	Vegetation Affected
Receiving station	Mandalay to Center Rd	none	none
Center Rd.	Mandalay to Center Rd	0.60 acres	Agriculture
Saugus	Line 324 Loop	none	none
Honor Rancho	Line 225 Loop	0.4 acres	Disturbed/Ruderal
Quigley	Line 225 Loop	0.5 acres	Disturbed/Ruderal
Balboa	Line 3008 Extension	0.1 acres	Oak/Eucalyptus

East of Harbor Boulevard the pipeline transverses over dune scrub habitat, and pipeline installation would result in the temporary loss of 3.1 acres of this habitat type. Appendix S.15, Figure 1 contains vegetation maps that delineate the habitat types along all pipeline routes within the Mandalay to Center Road alignment. For a complete list of acreage of temporary loss of vegetation for this alignment please refer to Table 7.6-5. The expansion of the Center Road valve station would require the permanent removal of 0.60 acres of agricultural land (Table 7.6-6).

Northern Alternative. The majority of the northern alternative from Mandalay is along disturbed roadways, development, and ruderal areas (refer to Section 7.15 - Agriculture, and Section 7.16 - Land Use) along Victoria Avenue. There are portions of the alignment that contain windrows which may include blue gum eucalyptus (up to 2.4 acres). Trenching may result in root damage and eventual loss of several of these trees. A 6,600-foot portion of southern cottonwood-willow riparian forest and southern willow riparian scrub may also be affected. The pipeline installation may result in the temporary loss of up to 1.5 acres of southern cottonwood-willow riparian forest and 3.7 acres of southern willow riparian scrub. However, this estimate is based on a worst-case scenario in which ground disturbance would occur within the riverbed, which is unlikely. There would be a temporary loss of 5.1 acres of landscaping vegetation. There would be no temporary loss of habitat due to watercourse crossings on this alignment.

Middle Alternative. The middle alternative is almost exclusively located on disturbed and agricultural areas. This alignment includes a portion of the same windrows present on the northern alignment, which may include a temporary loss of approximately 1.4 acres. There would also be a temporary loss of agricultural and disturbed land (refer to Section 7.15 - Agriculture, and Section 7.16 - Land Use). There would be a temporary loss of 3.3 acres of landscaping vegetation. There would be no temporary loss to habitat due to watercourse crossings on this alignment.

Southern Alternative. This alignment is similar to the middle alternative as it is also almost exclusively within agricultural and disturbed lands. There would also be a temporary loss of agricultural and disturbed land (refer to Section 7.15 - Agriculture, and Section 7.16 -

Land Use). There is no expected loss of windrows on this alignment. There would be a temporary loss of 1.9 acres of landscaping vegetation. There would be no temporary loss to habitat due to watercourse crossings on this alignment.

**Line 324 Loop.** The 324 Loop contains a variety of habitat types on all three possible routes. Appendix S.15, Figure 1 contains vegetation maps that delineate the habitat types along all pipeline routes within the 324 Loop. For a complete list of acreage of temporary loss of vegetation for this alignment please refer to Table 7.6-5. There would be no expansion to the Saugus valve station, therefore no long-term impacts are expected (Table 7.6-6).

Primary Alignment. This alignment traverses the most natural vegetation of the three alignments. The temporary loss of vegetation along this alignment includes 110.3 acres of coastal sage scrub, 35.0 acres of grassland, 34.5 acres of mixed chaparral, 5.1 acres of oak savanna, and 22.8 acres of oak woodland. Natural vegetation found along this alignment are chamise chaparral and scalebroom scrub which may have a temporary loss of 3.1 and approximately 0.4 acres, respectively. These acreage estimates are conservative, in the event, the ability to maintain trenching equipment within roads/disturbed areas is not feasible. Along this alignment, sensitive communities like oak woodlands and scalebroom scrub would be avoided whenever possible to avoid any unnecessary impact. The removal of any oak trees would be avoided whenever possible. There would also be a temporary loss of agricultural and disturbed land (refer to Section 7.15 - Agriculture, and Section 7.16 - Land Use). Thirteen watercourses and one riparian drainage area would be crossed by the primary alignment; all watercourses and drainages would be bored, either by a “slick” bore on the smaller watercourses or a “Directional Drill” on the larger watercourses (Table 7.6-8). All watercourses that require a bore would result in no temporary loss of riparian vegetation.

Alternative 1 (blue-red-blue). The temporary loss of vegetation along this alignment includes 57.2 acres of coastal sage scrub, 35.0 acres of grassland, 20.8 acres of mixed chaparral, 2.2 acres of oak savanna, and 1.1 acres of southern willow riparian scrub. This alignment includes a potential temporary loss of windrows (approximately 0.4 acres), which may include blue gum eucalyptus. These acreage estimates are high, in the event, the ability to maintain trenching equipment within roads/disturbed areas is not feasible. There is a temporary loss of 0.6 acres of landscaping vegetation. There would also be a temporary loss of agricultural and disturbed land (refer to Section 7.15 - Agriculture, and Section 7.16 - Land Use). Fifteen watercourses and one riparian area would be crossed by the alternative 1 alignment; all watercourses and drainages would be bored, either by a “slick” bore on the smaller watercourses or a “Directional Drill” on the larger watercourses (Table 7.6-8). All watercourses that require a bore would result in no temporary loss of riparian vegetation.

Alternative 2 (green-red-blue). This alignment affects mostly agricultural and disturbed land (refer to Section 7.15 - Agriculture, and Section 7.16 - Land Use). The temporary loss of vegetation along this alignment includes 11.8 acres of coastal sage scrub, 30.8 acres of grassland, 20.8 acres of mixed chaparral, 2.2 acres of oak savanna, and 1.1 acres of southern willow riparian scrub. The same section of windrows is present on this alignment as alternative 1; which accounts for a temporary loss of 0.4 acres. There would also be a temporary loss of



agricultural and disturbed land (refer to Section 7.15 - Agriculture, and Section 7.16 - Land Use). Eighteen watercourses would be crossed by the alternative 2 alignment; all watercourses and drainages would be bored, either by a “slick” bore on the smaller watercourses or a “Directional Drill” on the larger watercourses (Table 7.6-8). All watercourses that require a bore would result in no temporary loss of riparian vegetation. One crossing of the Santa Clara River would require the pipeline to be attached to an existing bridge, and would involve temporary loss of southern willow riparian scrub.

**Line 225 Loop.** All vegetation types listed for the Line 225 Loop are found along both proposed alignments. Appendix S.15, Figure 1 contains vegetation maps for pipeline routes considered for the Line 225 Loop. For a complete list of acreage of temporary loss of vegetation for this alignment please refer to Table 7.6-5. The expansion of the Honor Rancho and Quigley valve station would require the permanent removal of 0.90 acres of ruderal/disturbed land (Table 7.6-6).

Primary Alignment. The temporary loss of vegetation along this alignment includes 11.5 acres of coastal sage scrub, 4.0 acres of mixed chaparral, and 2.8 acres of southern willow riparian scrub. There would also be a temporary loss of agricultural and disturbed land (refer to Section 7.15 - Agriculture, and Section 7.16 - Land Use). There would be a temporary loss of 7.3 acres of landscaping vegetation. All watercourse crossings within this alignment would be accomplished by attaching the pipe to an existing roadway bridge, and would involve the temporary loss of southern willow riparian scrub. This includes the Santa Clara River, South Fork Santa Clara River, and the San Francisquito Creek.

Alternative Alignment. The temporary loss of vegetation along this alignment includes 12.1 acres of coastal sage scrub, 4.0 acres of mixed chaparral, and 2.0 acres of southern willow riparian scrub. There would also be a temporary loss of agricultural and disturbed land (refer to Section 7.15 - Agriculture, and Section 7.16 - Land Use). There is a temporary loss of 5.4 acres of landscaping vegetation. For a complete list of acreage of temporary loss of vegetation for this alignment please refer to Table 7.6-1. The pipeline crosses two watercourses, the South Fork Santa Clara River and the Santa Clara River. The pipeline crossing of the South Fork Santa Clara River would be accomplished by attaching the pipe to an existing roadway bridge, and would result in the temporary loss of southern willow riparian scrub. Directional drilling would be utilized to cross the Santa Clara River; and would not require any riparian habitat loss (Table 7.6-7).

**Line 3008 Extension.** The temporary loss of vegetation along this alignment includes 3.5 acres of coastal sage scrub, 0.9 acres of southern willow riparian scrub, and 0.8 acres of California walnut woodland (Table 7.6-5). These acreage estimates are high; since the pipeline would be constructed within public road R/W the only habitat loss would be where the equipment requires overlap along the road. There is a temporary loss of 0.9 acres of landscaping vegetation. There would also be a temporary loss of agricultural and disturbed land (refer to Section 7.15 - Agriculture, and Section 7.16 - Land Use). Due to the expansion of the Balboa station, there would be a permanent loss of 0.1 acres of a mix of oak woodland and



landscaping habitat (Table 7.6-6). There would be no loss of habitat due to watercourse crossings on this alignment.

**Project-Incorporated Mitigation to Reduce Impacts:**

- Final alignments would be selected to minimize adverse effects to dune scrub, willow scrub, riparian forest, oak woodland, California walnut woodland and other sensitive communities. A Restoration Plan would be developed and fully implemented to include restoration of pre-project topography, slope stabilization, revegetation, maintenance and monitoring. The Plan would be prepared by a qualified biologist experienced in the appropriate habitat restoration needed. For example, the goal of the plan for the temporary loss of habitat within the dune community would be re-establish a native community and to eradicate hottentot fig (iceplant) to the extent feasible.
- The pipeline alignment would be modified such that excavation does not occur within 15 feet of the trunk of any mature blue gum tree. Alternatively, any blue gum trees removed or suffering extensive root damage due to pipeline installation would be relocated with sapling trees. The number of trees to be planted would be based on the replacement value as established by a tree valuation by a certified arborist.
- All alignments would be located in disturbed areas to highest extent possible.

**7.6.4.2 Impacts to Aquatic and Terrestrial Wildlife During Onshore Construction or Operational Activities**

**Fish.** Project facilities would not impact surface waters and associated fish fauna. Most of the drainages crossed by proposed pipelines are ephemeral and do not support fish. All streams and rivers supporting surface water would be crossed by boring under the streambed and avoid impacts to fish habitat (see Table 7.6-7).

**Amphibians.** Western toad, bullfrog and Pacific treefrog may occur in riparian habitats of the Santa Clara River and tributaries along the pipeline alignments. However, pipeline installation would generally avoid suitable breeding habitats (surface water). Black-bellied salamander, Monterey salamander, Pacific treefrog and other common amphibians may be affected by temporary habitat loss associated with pipeline installation away from major drainages. However, no substantial adverse effects to local populations would result.

**Reptiles.** Adverse effects to reptiles would be concentrated in areas where native vegetation would be removed for pipeline installation, primarily dune scrub on the Mandalay to Center Road alignment, coastal sage scrub and many other habitat types along the 324 Loop, and chamise chaparral along the 225 Loop alignment. Species affected may include side-blotched lizard, western fence lizard, southern alligator lizard, coastal western whiptail, silvery legless lizard, San Diego gopher snake, red coachwhip, and others. Due to the small area affected and temporary nature of the impacts, no substantial adverse effects to these reptile populations is expected. However, being that the silvery legless lizard and coastal western



whiptail are less common, potential impacts are further addressed under the special-status species analysis below. Southwestern pond turtle occurs within the Santa Clara River, and may be present on the River bank adjacent to the Mandalay to Center Road (northern alternative) and Line 324 (alternative) pipeline alignments. However, lack of habitat and bank protection (rock rip-rap) is expected to minimize use of the pipeline alignments by this species. Therefore, no adverse effects on the population are expected.

**Birds.** Directional-drilling activities at the landfall site and construction of the pig receiver/launching station may adversely affect shorebirds and other birds foraging and breeding on the adjacent dunes near Mandalay Beach. This area has among the greatest bird diversity of any site in the County. Due to noise and other human activity, several hundred feet of beach and adjacent dunes would be unavailable for foraging and breeding for several weeks. However, due to the fact that the affected habitat area is small; potentially significant adverse effects would be limited to special-status species (please refer to 7.6.4.7 Potential Impacts to Special Status Wildlife Species During Onshore Construction/or Operational Activities).

Pipeline installation along other alignments may also disrupt foraging and breeding of birds. However, this activity would be mobile (several hundred feet per day) such that any one location would be exposed to noise, dust and human presence for only a few days. Therefore, no substantial adverse effects to local bird populations are expected. Tree removal and ground-clearing activities would be scheduled prior to the initiation of nesting activity (March) or after fledging (August). If this is infeasible, pre-construction surveys would be conducted between February 15 and August 15 in potential nesting habitat to identify nest sites. If an active raptor nest is observed within 350 feet of the project site, CDFG would be contacted and an appropriate protective buffer around the nest tree would be established. Construction activities in the buffer zone would be prohibited until the young have fledged.

Birds may also forage and breed in roadside landscaping and ruderal vegetation along the roadway shoulders of the pipeline alignments. However, loss of these habitats would be minimal; as these species are adapted to disturbance (roadway traffic) and rarely breed in these areas. Therefore, no adverse effects to the bird populations along affected roadways are expected.

**Mammals.** Each of the proposed pipeline alignments are mostly located along disturbed corridors (roadways). As such, affected species are adapted to disturbance, such as California ground squirrel, pocket gopher, opossum, deer mouse and coyote. Native vegetation to be removed near the landfall at Mandalay is limited to dune scrub, which may support coyote, Audubon's cottontail, deer mouse, red fox and feral cat. However, this loss of habitat would be small and temporary, such that no substantial adverse effects to local mammal populations are expected.

Pipeline installation within native habitats (coastal sage scrub, mixed chaparral, oak woodland) for the Line 324, 225, and 3008 pipeline alignments may adversely affect California ground squirrel, pocket gopher, opossum, deer mouse, coyote, Audubon's cottontail, bobcat, black-tailed jackrabbit, gray fox, striped skunk, San Diego desert woodrat and black-tailed deer.

However, the loss of habitat would be temporary and these species are highly mobile; therefore, mortality would be low and no substantial adverse effects to local populations are expected. Given that the black-tailed jackrabbit and San Diego desert woodrat are less common, potential impacts to these mammals is further addressed under special-status species below.

#### **7.6.4.3 Potential Disturbance to Wildlife Movement Corridors During Pipeline Installation Activities**

The Santa Clara River is likely an important wildlife movement corridor. Pipeline installation along the River would be short-term (a few days at any one location), mostly screened by intervening vegetation and would not occur at night, when movement primarily occurs. Therefore, the proposed project is not expected to significantly reduce the value of the Santa Clara River as a wildlife movement corridor.

Although not as important as the Santa Clara River, creeks and barrancas within the project area also provide potential movement corridors. Installation would be rapid and short-term; therefore, this project is not expected to reduce the value of these creek crossings as movement corridors. Furthermore, pipeline crossings of riparian areas would be bored to prevent any obstruction from wildlife species using the riparian habitat as a movement corridor (Table 7.6-7).

#### **7.6.4.4 Potential Disturbance to Sensitive Communities During Pipeline Installation Activities**

The following are considered potentially significant impacts to sensitive communities that would result during pipeline installation activities.

##### **Mandalay to Center Road**

- The northern alternative may require the temporary removal of up to 1.5 acres of southern cottonwood riparian, 3.1 acres of dune scrub, and 3.7 acres of southern willow riparian scrub.
- The middle alternative may require the temporary removal of up to 3.1 acres of dune scrub.
- The southern alternative may require the temporary removal of up to 3.1 acres of dune scrub.

**Table 7.6-7. Method and Impact of Watercourse Crossings During Onshore Pipeline Installation Activities**

Location	Watercourse	Method	Impact			Vegetation affected	
			Entry	Exit	Total (acres)	Entry	Exit
Mandalay to Center Rd	None						
324 Loop (primary)	Milligans Barranca	Slick Bore	200' X 100'	100' X 100'	0.69	Disturbed	Agriculture
	Arroyo Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	Honda Barranca	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Coastal sage scrub
	Boone Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Grassland	Agriculture
	Fox Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Grassland	Grassland
	Balcom Canyon riparian area	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Coastal sage scrub
	Long Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Disturbed	Disturbed
	Happy Camp Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Oak woodland	Oak woodland
	Wiley Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Coastal sage scrub	Coastal sage scrub
	Tapo Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Mixed chaparral	Mixed chaparral
	SC River	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
	SC River	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
	Salt Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Grassland	Agriculture
	Potrero Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Grassland	Coastal sage scrub
	Milligans Barranca	Slick Bore	200' X 100'	100' X 100'	0.69	Disturbed	Agriculture
	Arroyo Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	Honda Barranca	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Coastal sage scrub
	Boone Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Grassland	Agriculture
	Fox Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Grassland	Grassland
	Balcom Canyon riparian area	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Coastal sage scrub

**Table 7.6-7. (Continued)**

Location	Watercourse	Method	Impact			Vegetation affected	
			Entry	Exit	Total (acres)	Entry	Exit
324 Loop (primary) (Continued)	SC River	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
	Sespe Cr.	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
	Pole Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	Hopper Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Disturbed	Agriculture
	Piru Cr.	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
	SC River	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
	Tapo Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	SC River	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
	Salt Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Grassland	Agriculture
	Potrero Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Grassland	Coastal sage scrub
324 Loop (alternative) (Green-Red-Blue)	SC River	Hang	40 ft			Willow riparian scrub	
	Ellsworth Barranca	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	Todd Barranca	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	Haines Barranca	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	Adams Barranca	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	Santa Paula Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Disturbed	Disturbed
	Orcutt Canyon (Haun) Cr	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	Timber Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	O'leary Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	Sespe Cr.	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
Pole Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture	

**Table 7.6-7. (Continued)**

Location	Watercourse	Method	Impact			Vegetation affected	
			Entry	Exit	Total (acres)	Entry	Exit
324 Loop (alternative) (Green-Red-Blue) (Continued)	Hopper Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Disturbed	Agriculture
	Piru Cr.	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
	SC River	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
	Tapo Canyon Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Agriculture	Agriculture
	SC River	HDD	400' X 200'	100' X 100'	2.06	Agriculture	Agriculture
	Salt Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Grassland	Agriculture
	Potrero Cr.	Slick Bore	200' X 100'	100' X 100'	0.69	Grassland	Coastal sage scrub
225 Loop (primary route)	S. Fork SC River	Hang	40 ft			Willow riparian scrub	
	SC River	Hang	40 ft			Willow riparian scrub	
	San Francisquito Cr	Hang	40 ft			Willow riparian scrub	
225 Loop (alternative route)	S. Fork SC River	Hang	40 ft			Willow riparian scrub	
	SC River	HDD	400' X 200'	100' X 100'	2.06	Disturbed	Disturbed
3008 Extension	None						

### **Line 324 Loop**

- The primary alignment may require the temporary removal of 0.4 acres of scalebroom scrub, 22.8 acres of oak woodland [valley oak woodland, southern coast live oak woodland, and mixed oak (valley and coast live oak)] and 5.1 acres of oak savanna.
- The alternative 1 alignment may require the temporary removal of 1.1 acres of southern willow riparian scrub and 2.2 acres of oak savanna.
- The alternative 2 alignment may require the temporary removal of 1.8 acres of southern willow riparian scrub and 2.2 acres of oak savanna.

### **Line 225 Loop**

- The primary alignment may require the temporary removal of 2.8 acres of southern willow riparian scrub.
- The alternative alignment may require the temporary removal of 2.0 acres of southern willow riparian scrub.

### **Line 3008 Extension**

- May require the temporary removal of 0.9 acres of willow scrub and 0.8 acres of California walnut woodland.

### **Project-Incorporated Mitigation to Reduce Impacts:**

To minimize impacts to native trees as a result of project construction, the following measures would be implemented:

- To the extent feasible, the pipeline alignment would be adjusted to avoid and minimize the removal of native oak trees. The pipeline installation footprint has been assumed to be 100 feet wide, which is conservative and will be reduced in selected areas to avoid trees and other biological resources. Trees that are not within the construction zone, or for which removal is not necessary due to safety issues, shall be avoided.
- Prior to project construction, surveys will be conducted to identify trees within the construction area that will be removed for pipeline installation. All native trees greater than 6 inches in diameter at breast height (dbh), as measured 4.5 feet above grade, will be tallied, tagged, measured, and health and vigor evaluated. Mitigation will not be required for non-native trees, nor native trees less than 6 inches dbh.
- All native trees to remain in place and located within 25 feet of ground disturbances shall be temporarily fenced with orange plastic construction (exclusion) fencing throughout all construction activities. The exclusion fencing shall be installed 6 feet



- outside the dripline of each specimen tree, and shall be staked a minimum of every 6 feet. The fencing is intended to prevent equipment operations in the proximity of protected trees that may compact soil, crush roots, or collide with the tree trunk and/or overhanging branches.
- No construction equipment shall be parked, stored, or operated within 6 feet of any specimen tree dripline.
  - In accordance with the California State Senate Concurrent Resolution 17, each oak tree removed and/or damaged (e.g., more than 25 percent of root zone disturbed) will be relocated in kind at a replacement-to-loss ratio of 3:1 for each native oak tree measuring greater than 6 inches in at dbh. Implementation of this mitigation measure will require the planting of acorns (three per planting hole) or installation of one-gallon container stock.
  - Seeds (acorns) and/or container-grown plants shall be obtained from within the project area, when feasible, or, alternatively, from contract-growers using locally occurring native plants. Advance notice shall be given to the suppliers or growers to ensure that the required species are ready at the proposed planting time. To enhance survival rates, tree plantings should be from liners or cuttings. Plant material in containers larger than one-gallon cans should be avoided, if possible.
  - A Restoration and Revegetation Plan for the project will be prepared. The Plan will detail site preparation, planting techniques, watering schedules, maintenance procedures, and success criteria for installed plantings. The Plan shall include a monitoring program, and will require weekly inspection of plantings for the first month; followed by monthly monitoring for three months; and then quarterly monitoring for the next 12 months unless success criteria are met earlier. After the first year, plantings will be monitored on an annual basis for a period of four years. Monitoring will continue until performance standards are met.
  - Because on-site mitigation may be precluded along the proposed alignment due to restricted rights-of-way and other factors, some of the mitigation may be conducted off-site at a City-owned park or other public property.
  - In addition to tree plantings, the Restoration and Revegetation Plan will describe measures to minimize soil loss and to stabilize exposed soils immediately after construction. The plan elements will be graphically depicted on final construction plans, including the location and extent of the dripline for all trees, type and location of any fencing, and equipment storage and staging areas outside of dripline areas.
  - Plants selected for revegetation will be appropriate for the project area and will not include any noxious or invasive weeds.

#### 7.6.4.5 Impacts to Wetlands During Onshore Pipeline Construction

The Santa Clara River supports waters of the U.S. and Corps-defined wetlands, at least in areas where wetland vegetation persists and soils have not been recently disturbed. There are 18 designated waters of the U.S. that are crossed by the pipeline alignments, both primary and alternative routes. Although stream crossings of pipelines would be conducted using directional drilling/boring techniques, agricultural drains and minor tributary swales not evident on topographic maps may be crossed using trenching techniques. Pipeline installation may result in temporary disturbance of wetlands in these minor drainages.

##### **Project-Incorporated Mitigation to Reduce Impacts:**

- The pipeline alignment would be modified as needed to minimize impacts to the wetlands in affected drainages. Silt fencing would be installed between the drainage and the trench spoils to ensure no materials are deposited in the drainage. Pre-construction topographic contours would be restored to the extent feasible to prevent long-term loss of wetlands.

#### 7.6.4.6 Potential Impacts to Special-Status Plant Species During Onshore Construction and/or Operational Activities

Focused surveys are needed to fully verify the presence or absence of the species within the area potentially affected by pipeline installation. The following discussion provides a list of the special status plant species that have been recorded and may be potentially impacted during onshore construction and/or operational activities within one mile of the pipeline alignments. Due to the status and the extreme rarity of the Ventura marsh milk vetch, San Fernando spineflower, slender-horned spineflower, and California orcutt grass, any adverse effect would be considered significant. For the likelihood of occurrence of these species please refer to Table 7.6-3.

**Mandalay to Center Road (Figure 7.6-1A).** A botanical survey was conducted in 2004 along the pipeline alignment adjacent to Harbor Boulevard (shared among all 3 alternatives) and no special-status plant species (including Ventura marsh milk vetch) were found. This is the only portion of the pipeline alignments expected to support special-status plant species. Therefore, no impacts to special-status plant species are expected. However, follow-up botanical surveys are recommended prior to construction to ensure the absence of these species.

**Line 324 Loop (Figure 7.6-1B).** Botanical surveys have not been conducted along most of these alignments due to seasonal and access constraints. Special-status plant species are most likely to be found in the Newhall area, where a single alignment is under consideration. However, protected trees (primarily coast live oak and sycamore) may also be encountered at many other locations along the alignments, especially along intermittent drainages. Potential species of concern include valley oak, coast live oak, sycamore, southern California black walnut, San Fernando Valley spineflower, slender-horned spineflower, short-jointed beavertail cactus, Pierson's morning glory, spreading navarretia, Parish's big sagebrush, late-flowered

Mariposa lily, Plummer's mariposa lily, and slender mariposa lily. Impacts to special-status plant species cannot be determined at this time. Comprehensive botanical surveys would be required prior to construction to identify and avoid special-status species.

**Line 225 Loop (Figure 7.6-1C).** A spring botanical survey was conducted in March 2005 along the pipeline alignments east of San Fernando Road and at the Magic Mountain Parkway river crossing and two special-status species were found; coast live oak and Lewis' evening primrose. These species would be adversely affected by pipeline installation. Pipeline alignments north of the Santa Clara River are unlikely to support additional special-status species but should be surveyed prior to construction.

**Line 3008 Extension (Figure 7.6-1D).** Spring botanical surveys have not been conducted along this alignment due to seasonal constraints. Potential species of concern include valley oak, coast live oak, sycamore, southern California black walnut, San Fernando Valley spineflower, slender-horned spineflower, short-jointed beavertail cactus, Pierson's morning glory, slender mariposa lily and Catalina mariposa lily.

**Project-Incorporated Mitigation to Reduce Impacts:**

- Focused surveys would be required to fully verify the presence and distribution of special-status plant species within the area potentially affected by pipeline installation. Should special-status plant species be found within the proposed disturbance footprint, the final pipeline alignment would be designed to avoid direct and indirect adverse effects, including removal, burial through slope destabilization and increased public access.

**7.6.4.7 Potential Impacts to Special-Status Wildlife Species During Onshore Construction and/or Operational Activities**

Directional-drilling activities at the landfall site and construction of the pig receiver/launching station may adversely affect special-status bird species foraging or breeding at the beach, adjacent to the work area, including California least tern, California brown pelican, and western snowy plover. Although construction work would be limited to the existing Mandalay Generating Station facility and all drilling will be conducted with a Horizontal Directional Drill; noise, lighting and human presence may disrupt nesting/breeding at this site.

As discussed in section 7.6.1.6 Special Status Species, the beach portions of the project site may be frequented by western snowy plover and California least tern for foraging and nesting/breeding purposes. According to discussions with U.S. Fish and Wildlife Service, California Department of Fish and Game and Audubon Society, project activities conducted in the winter months (September through February) would not be expected to have a major impact on the nesting, roosting, or foraging of any endangered or migratory bird species (e.g., western snowy plover, California least tern) found in the area as the winter is not a common nesting period (Padre, 2001). However, if project activities carry over into the spring or summer, there is a higher potential to impact birds in the area. In addition, the presence of project activities

during or immediately prior to the nesting season could preclude the use of the project site for foraging purposes by shorebirds (including western snowy plovers and California least terns).

To the extent feasible construction of the proposed pipeline landfall will occur outside of the active nesting periods of the western snowy plover and California least tern. In the event activities occur during potential active nesting, period, pre-activity surveys of the beach area will be conducted to determine if these species are present. Areas of active use by sensitive species will be avoided until nesting has been completed.

Work associated with construction of the onshore receiving facilities will be located within the fence line of the already existing Mandalay Power Generation Facility and will therefore not directly impact, roosting or foraging activities on the adjacent nearshore, beach and dune habitat areas. Therefore no impacts will result from these activities. Offshore work associated with nearshore installation of the gas pipeline and interconnection with the HDD shoreline crossing will occur approximately 1000 feet from the shore. These activities will be extremely short term. Adjacent areas are available for displaced individuals, therefore no impacts will occur to these species.

Pipeline installation along the Santa Clara River on the Mandalay to Center Road (northern alternative) alignment may disrupt foraging and breeding of special-status birds within these riparian habitats, including least Bell's vireo, Cooper's hawk, yellow warbler and yellow-breasted chat. However, this activity would be mobile (several hundred feet per day) and screened by existing vegetation. Therefore, no adverse effects to special-status bird populations of the Santa Clara River are expected.

Of notable concern is the presence of at least seven (7) woodrat nests located at the base of elderberry trees either within, or in close proximity to the proposed pipeline alignment on the Line 225 Loop. It was unclear whether these nests were occupied and which species of woodrat had built these nests. San Diego desert woodrat, a California species of special concern, is known from the region and the proposed project alignment supports suitable habitat for this species. Therefore, focused trapping surveys are recommended to determine which species is utilizing these nests. Mitigation measures such as capture and relocation, and/or careful dismantling of nests located within the project alignment prior to construction may be required to prevent any significant impacts to this species.

San Diego horned lizard, silvery legless lizard, coastal western whiptail, coastal rosy boa, coast-patch nosed snake, southern California rufous-crowned sparrow, white-tailed kite, prairie falcon, Cooper's hawk, western burrowing owl, loggerhead shrike, California horned lark, long-eared owl, San Diego desert woodrat, San Diego black-tailed jackrabbit, American badger and other special-status species may occur along the Line 324, 225, and 3008 pipeline alignments. The temporary loss of coastal sage scrub, mixed chaparral, chamise chaparral, oak woodland, and oak savannah during pipeline installation represents loss of habitat for these species. However, impacts to these habitats types are temporary and would result in only temporary displacement of these species, if they are present in the area.

**Project-Incorporated Mitigation to Reduce Impacts:**

- The chosen alignment would be selected to avoid adverse effects to coastal western whiptail, silvery legless lizard, and other reptile species. Alternatively, these species would be removed from the pipeline alignment by:
  - Raking the top few inches of sand/soil on sunny mornings, preferably following a cool evening that results in condensation (dew);
  - Raking would focus on areas under and around shrubs and other dense vegetation;
  - All reptiles found during raking would be captured and immediately released in suitable habitat in the immediate area;
  - Immediately prior to trenching, equipment buckets would be used to “thump” the ground to entice reptiles to leave the area; and
  - Raking would be repeated immediately following “thumping”.
- To reduce impacts to Special-Status shorebirds a 4,235 Horizontal Directional Drill (HDD) shore crossing from the Clearwater Receiving Station at the Reliant Energy Mandalay Generating Station into the ocean will be used to connect the offshore segment of the pipeline to the onshore segment. The offshore segment tie-in will be located in about 35-50 feet of water, approximately 3,500 feet from the shoreline. The total length of the drill is approximately 4,235 feet from entry to exit. All operations will utilize the already established Reliant Energy Mandalay Receiving Station property where year around activity occurs. This procedure has been proposed to avoid disturbance of the beach’s sensitive habitat. For a complete description of the HDD procedures, please refer to Attachment E.1-5 – Horizontal Directional Drilling Procedures.
- Pig receiver/launcher facility construction activities and pipeline installation west of Harbor Boulevard would be prohibited during the least tern/snowy plover breeding season (March 1 through August 31). *Alternatively*, if construction work must be conducted during the breeding season, field surveys would be conducted regularly throughout the breeding season by qualified biologists to identify active nests of these species. Should an active nest be identified, all construction work within 500 feet of the nest would be cancelled until the nest has been abandoned or the young have fledged, as confirmed by the biologist. Construction activities would be monitored to ensure no work occurs within 500 feet.
- Pre-construction field surveys will be conducted on all alignments to determine the presence and distribution of San Diego horned lizard, silvery legless lizard, coastal western whiptail, coastal rosy boa, coast-patch nosed snake, southern California rufous-crowned sparrow, white-tailed kite, prairie falcon, Cooper’s hawk, western burrowing owl, loggerhead shrike, California horned lark, long-eared owl, San Diego desert woodrat, San Diego black-tailed jackrabbit, American badger and other

special-status wildlife species. The alignment would be selected to minimize habitat loss by limiting ground disturbance to previously disturbed areas to the extent feasible, and would also include the following precautionary measures:

- Raking areas under and around shrubs and other dense vegetation to detect and relocate special-status reptiles (through capture or herding);
- Delaying pipeline installation within 200 feet of active nests of special-status bird species, until young have fledged or the nest is abandoned; and
- Avoiding breeding sites of San Diego desert woodrat, San Diego black-tailed jackrabbit, American badger, and other special status wildlife species.

### 7.6.5 Summary of Biological Impacts and Mitigation

Potential Impact	Resulting from Project Component	Project Incorporated Mitigation Measures
<b>LOSS OF VEGETATION DURING PIPELINE INSTALLATION OR OPERATIONAL ACTIVITIES</b>		
Loss of sensitive habitats (dune scrub, willow scrub, etc.)	All pipeline alignments	Final alignments would be selected to minimize adverse effects to dune scrub, willow scrub, riparian forest, oak woodland, California walnut woodland and other sensitive communities. A Restoration Plan would be developed and fully implemented to include restoration of pre-project topography, slope stabilization, revegetation, maintenance and monitoring. The Plan would be prepared by a qualified biologist experienced in the appropriate habitat restoration needed. For example, the goal of the plan for the temporary loss of habitat within the dune community would be re-establish a native community and to eradicate hottentot fig (iceplant) to the extent feasible.
Loss of blue gum windrow habitat	All pipeline alignments	The pipeline alignment would be modified such that excavation does not occur within 15 feet of the trunk of any mature blue gum tree (SR 118). Alternatively, any blue gum trees removed or suffering extensive root damage due to pipeline installation would be relocated with sapling trees. The number of trees to be planted would be based on the replacement value as established by a tree valuation by a certified arborist.
		All alignments will be located in disturbed areas to the highest extent possible.
<b>IMPACTS TO AQUATIC AND TERRESTRIAL WILDLIFE DURING ONSHORE CONSTRUCTION OR OPERATIONAL ACTIVITIES</b>		
Loss and/or habitat disturbance of least tern and snowy plover	Mandalay to Center Road alignments (northern, middle, and southern)	Pig receiver/launcher facility construction activities and pipeline installation west of Harbor Boulevard would be prohibited during the least tern/snowy plover breeding season (March 1 through August 31). Alternatively, if construction work must be conducted during the breeding season, field surveys would be conducted regularly throughout the breeding season by qualified biologists to identify active nests of these species. Should an active nest be identified, all construction work within 500 feet of the nest would be cancelled until the nest has been abandoned or the young have fledged, as confirmed by the biologist. Construction activities would be monitored by a biologist to ensure no work occurs within 500 feet.
<b>POTENTIAL DISTURBANCE TO WILDLIFE MOVEMENT CORRIDORS DURING PIPELINE INSTALLATION ACTIVITIES</b>		



Potential Impact	Resulting from Project Component	Project Incorporated Mitigation Measures
No significant impacts identified.		
<b>POTENTIAL DISTURBANCE TO SENSITIVE COMMUNITIES DURING PIPELINE INSTALLATION ACTIVITIES</b>		
Temporary removal of species as outlined within Section 7.6.4	All pipeline alignments	<p>To minimize impacts to native trees as a result of project construction, the following measures will be implemented:</p> <p>To the extent feasible, the pipeline alignment will be adjusted to avoid and minimize the removal of native oak trees. The construction zone is approximately 100 feet wide to accommodate alignment adjustments. Trees that are not within the construction zone, or for which removal is not necessary due to safety issues, shall be avoided.</p> <p>Prior to project construction, surveys will be conducted to identify trees within the construction area that will be removed for pipeline installation. All native trees greater than 6 inches in diameter at breast height (dbh), as measured 4.5 feet above grade, will be tallied, tagged, measured, and health and vigor evaluated. Mitigation will not be required for non-native trees, nor native trees less than 6 inches dbh.</p> <p>All native trees to remain in place and located within 25 feet of ground disturbances shall be temporarily fenced with orange plastic construction (exclusion) fencing throughout all construction activities. The exclusion fencing shall be installed six feet outside the dripline of each specimen tree, and shall be staked a minimum of every six feet. The fencing is intended to prevent equipment operations in the proximity of protected trees that may compact soil, crush roots, or collide with the tree trunk and/or overhanging branches.</p> <p>No construction equipment shall be parked, stored, or operated within six feet of any specimen tree dripline.</p> <p>In accordance with the California State Senate Concurrent Resolution 17, each oak tree removed and/or damaged (e.g., more than 25 percent of root zone disturbed) will be relocated in kind at a replacement-to-loss ratio of 3:1 for each native oak tree measuring greater than 6 inches in at dbh. Implementation of this mitigation measure will require the planting of acorns (three per planting hole) or installation of one-gallon container stock.</p> <p>Seeds (acorns) and/or container-grown plants shall be obtained from within the project area, when feasible, or, alternatively, from contract-growers using locally occurring native plants. Advance notice shall be given to the suppliers or growers to ensure that the required species are ready at the proposed planting time. To enhance survival rates, tree plantings should be from liners or cuttings. Plant material in containers larger than one-gallon cans should be avoided, if possible.</p> <p>A Restoration and Revegetation Plan for the project will be prepared. The Plan will detail site preparation, planting techniques, watering schedules, maintenance procedures, and success criteria for installed plantings. The Plan shall include a monitoring program, and will require weekly inspection of plantings for the first month; followed by monthly monitoring for three months; and then quarterly monitoring for the next 12 months unless success criteria are met earlier. After the first year, plantings will be monitored on an annual basis for a period of four years. Monitoring will continue until performance standards are met.</p> <p>Because on-site mitigation may be precluded along the proposed alignment due to restricted rights-of-way and other factors, some of the mitigation may be</p>



Potential Impact	Resulting from Project Component	Project Incorporated Mitigation Measures
		<p>conducted off-site at a City-owned park or other public property.</p> <p>In addition to tree plantings, the Restoration and Revegetation Plan will describe measures to minimize soil loss and to stabilize exposed soils immediately after construction. The plan elements will be graphically depicted on final construction plans, including the location and extent of the dripline for all trees, type and location of any fencing, and equipment storage and staging areas outside of dripline areas.</p> <p>Plants selected for revegetation will be appropriate for the project area and will not include any noxious or invasive weeds.</p>
<b>IMPACTS TO WETLANDS DURING ONSHORE PIPELINE CONSTRUCTION</b>		
Loss of potential wetlands	All pipeline alignments	The pipeline alignment would be modified as needed to minimize impacts to the wetlands in affected drainages. Silt fencing would be installed between the drainage and the trench spoils to ensure no materials are deposited in the drainage. Pre-construction topographic contours would be restored to the extent feasible to prevent long-term loss of wetlands.
<b>POTENTIAL IMPACTS TO SPECIAL-STATUS PLANT SPECIES DURING ONSHORE CONSTRUCTION AND/OR OPERATIONAL ACTIVITIES</b>		
Potential impacts to San Fernando Valley spineflower, slender-horned spineflower, short-jointed beavertail cactus, Pierson's morning glory, spreading navarretia, Parish's big sagebrush, late-flowered Mariposa lily, Plummer's mariposa lily, and slender mariposa and other species	Onshore Pipeline Installation	Focused surveys would be conducted to fully verify the presence and distribution of special-status plant species within the area potentially affected by pipeline installation. Should special-status plant species be found within the proposed disturbance footprint, the final pipeline alignment would be designed to avoid direct and indirect adverse effects, including removal, burial through slope destabilization and increased public access.
<b>POTENTIAL IMPACTS TO SPECIAL-STATUS WILDLIFE SPECIES DURING ONSHORE CONSTRUCTION AND/OR OPERATIONAL ACTIVITIES</b>		
Loss and/or habitat disturbance of coastal western whiptail and silvery legless	Mandalay to Center Road pipeline alignments (northern,	<p>The alignment with the least amount of impact would be selected to avoid adverse effects to coastal western whiptail and silvery legless lizard. <i>Alternatively</i>, these species would be removed from the pipeline alignment by:</p> <p>Raking the top few inches of sand/soil on sunny mornings, preferably following a cool evening that results in condensation (dew);</p>

Potential Impact	Resulting from Project Component	Project Incorporated Mitigation Measures
lizard	middle, and southern)	<p>Raking would focus on areas under and around shrubs and other dense vegetation;</p> <p>All reptiles found during raking would be captured and immediately released in suitable habitat in the immediate area;</p> <p>Immediately prior to trenching, equipment buckets would be used to “thump” the ground to entice reptiles to leave the area; and</p> <p>Raking would be repeated immediately following “thumping”.</p>
Potential loss of habitat for San Diego horned lizard, silvery legless lizard, coastal western whiptail, coastal rosy boa, coast-patch nosed snake, southern California rufous-crowned sparrow, white-tailed kite, prairie falcon, Cooper’s hawk, western burrowing owl, loggerhead shrike, California horned lark, long-eared owl, San Diego desert woodrat, San Diego black-tailed jackrabbit, American badger	Line 324 Loop, Line 225 Loop, and Line 3008 Extension pipeline alignments	<p>Field surveys will be conducted along the 324 Loop, 225 Loop, and 3008 extension pipeline alignments to determine the presence and distribution of San Diego horned lizard, silvery legless lizard, coastal western whiptail, coastal rosy boa, coast-patch nosed snake, southern California rufous-crowned sparrow, white-tailed kite, prairie falcon, Cooper’s hawk, western burrowing owl, loggerhead shrike, California horned lark, long-eared owl, San Diego desert woodrat, San Diego black-tailed jackrabbit, American badger and other special-status wildlife species. The alignment would be selected to minimize habitat loss, by limiting ground disturbance to previously disturbed areas to the extent feasible, and:</p> <p>Raking areas under and around shrubs and other dense vegetation to detect and relocate special-status reptiles (through capture or herding);</p> <p>Delaying pipeline installation within 200 feet of active nests of special-status bird species, until young have fledged or the nest is abandoned; and</p> <p>Avoiding breeding sites of San Diego desert woodrat, San Diego black-tailed jackrabbit, and American badger.</p>
Loss and/or habitat disturbance of least tern and snowy plover	Mandalay to Center Road alignments (northern, middle, and southern)	<p>Pig receiver/launcher facility construction activities and pipeline installation west of Harbor Boulevard would be prohibited during the least tern/snowy plover breeding season (March 1 through August 31). Alternatively, if construction work must be conducted during the breeding season, field surveys would be conducted regularly throughout the breeding season by qualified biologists to identify active nests of these species. Should an active nest be identified, all construction work within 500 feet of the nest would be cancelled until the nest has been abandoned or the young have fledged, as confirmed by the biologist. Construction activities would be monitored by a biologist to ensure no work occurs within 500 feet.</p>



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