

## ***D. BIOLOGICAL RESOURCES***

The following analysis of biological resources is based upon the “Final Biological Resources Survey Report for the Nipomo Community Services District Waterline Intertie Project” prepared by Padre Associates, Inc. dated June, 2008 and “Addendum to Final Biological Resources Survey Report for the Nipomo Community Services District Waterline Intertie Project” prepared by Padre Associates, Inc. dated October 17, 2008. These analyses are included in their entirety in Technical Appendix F of this document.

### **1. Existing Conditions**

- ***Vegetation***

A total of 102 vascular plant species were identified within the proposed project area based on the results of the botanical field surveys. Overall, identified plant species consisted of 47 (46 percent) native taxa and 55 (54 percent) non-native naturalized taxa. The percentage of non-native taxa is greater than for the State as a whole (17.4 percent), reflecting the relatively high level of disturbance associated with existing land uses primarily agriculture and urban development.

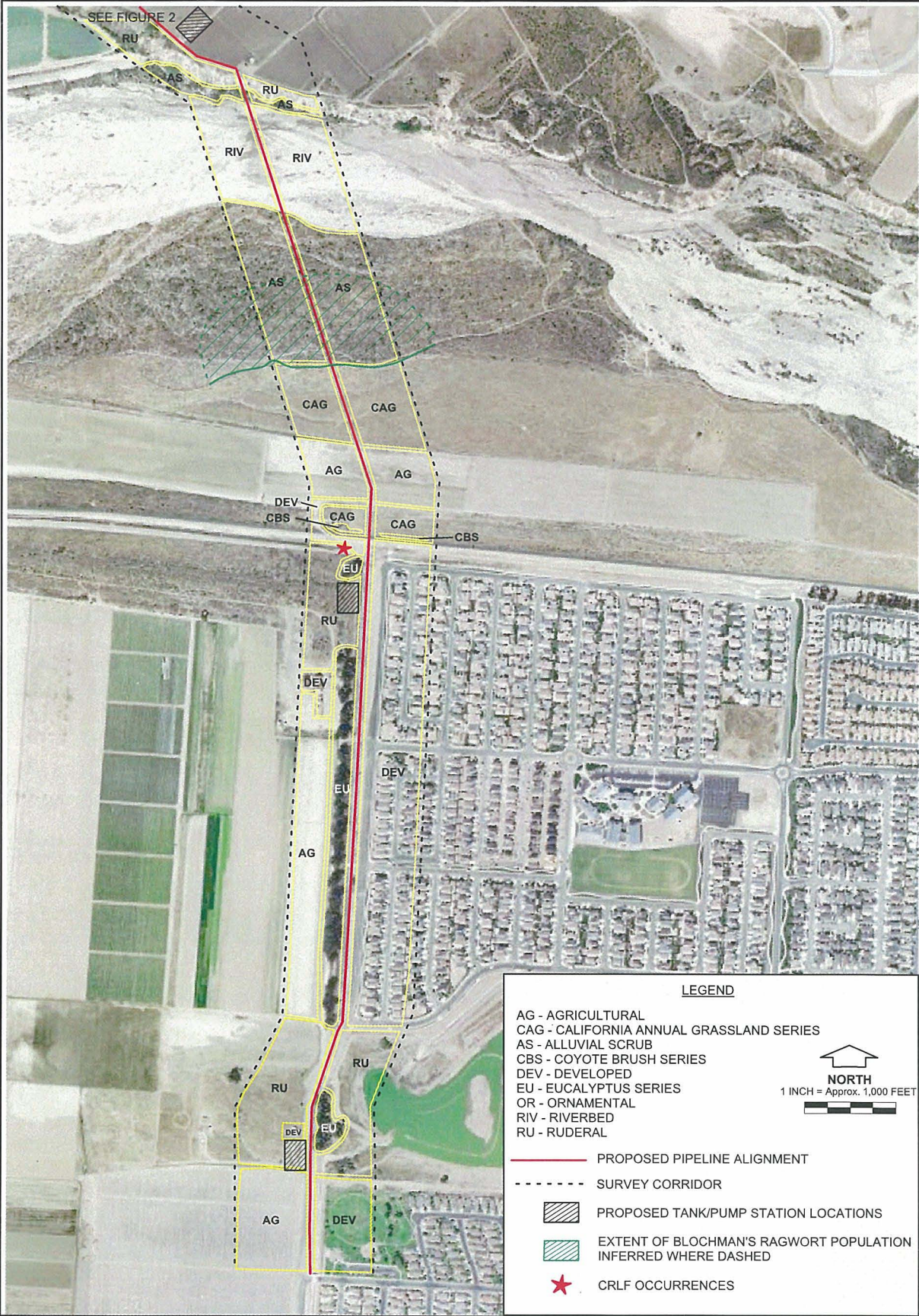
The project area encompasses nine generalized habitat classifications: Coyote Brush Series, Alluvial Scrub, Riverbed, California Annual Grassland Series, Eucalyptus Series, Agricultural, Ornamental, Developed and Ruderal (disturbed) habitats. The general location of these communities within the project area is depicted in Figure 21, Plant Community Map – South, Figure 22, Plant Community Map – Central and Figure 23, Plant Community Map – North. Provided below is a description of each of the plant communities occurring within the project area:

**Coyote Brush Series.** This community is dominated by coyote brush with frequent occurrences of California sagebrush. In addition, ruderal species such as black mustard and veldt grass were intermingled within the coyote brush habitat. This community is present along the Santa Maria River levee and in scattered locations on the Nipomo Mesa.

**Alluvial Scrub.** The alluvial scrub community is dominated by narrow-leaved willow, mule fat and mock heather. Sub-dominant species include California buckwheat and black sage. Deerweed, Blochman’s ragwort, and buck brush also occurred frequently in association within this community. This habitat occurs adjacent to the active river channel.

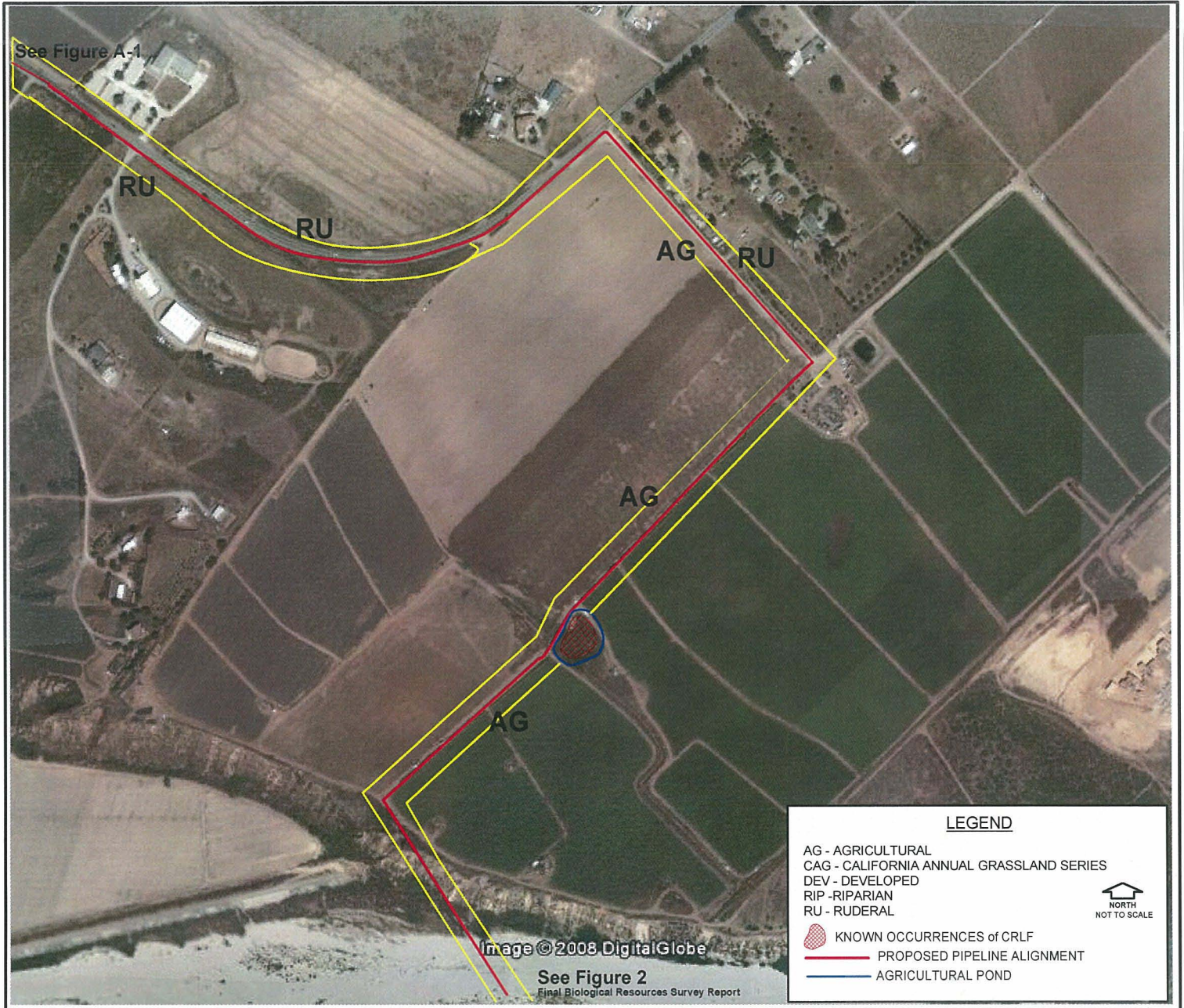
**Riverbed.** The active channel/riverbed of the Santa Maria River is comprised of a series of alluvial channels and associated sandbars. Vegetation within the riverbed consists of scattered occurrences of narrow-leaved willow, coyote brush and mock heather.

**FIGURE 21**  
**Plant Community Map - South**



*NCSD Waterline Intertie*

**FIGURE 22**  
**Plant Community Map - Central**



**FIGURE 23**  
 Plant Community Map - North



**California Annual Grassland Series.** Annual grassland habitat exists along the Santa Maria River levee, along Orchard Avenue near Southland Street and within the river basin adjacent to and intergrading with the alluvial scrub habitat described above. These areas show evidence of previous disturbance from agriculture, grazing, and maintenance activities (i.e., mowing). Consequently, the vegetation is comprised of non-native annual grasses and weedy plant species typical of disturbed grassland areas. Dominant plant species observed within the annual grassland habitat include rip-gut brome, red brome, slender wild oat, hare barley, horehound, black mustard and telegraph weed.

**Eucalyptus Series.** This community is dominated by stands of blue gum eucalyptus. Plants of this genus were imported from Australia and originally planted in groves throughout many areas of coastal California as a potential source of lumber and for their use as windbreaks and visual barriers. In areas where eucalyptus form dense stands, growth of native plants within the immediate vicinity is inhibited due to allelopathic compounds of the bark and leaf litter as is the case within these areas located along Orchard Road, Southland Street, South Frontage Road and Darby Lane.

**Agricultural.** Agricultural areas within the project area are present along Blosser Road, Orchard Avenue and adjacent to the southern Santa Maria River levee. All of the agricultural areas within the project area contained strawberry crops with the exception of one fallow area adjacent to the levee. In addition, several run-off ponds exist within and adjacent to the agricultural areas located on the Nipomo Mesa. The resulting wetland habitat contains many of the ruderal plant species listed below as well as California bulrush and curly dock.

**Ruderal.** Ruderal habitat is a term used to describe those areas that have been disturbed by past land-use practices and/or recent ground disturbance. Within the project area, ruderal habitat also represents those areas which are routinely maintained. Within the project area, ruderal habitat occurs along roadways (i.e., Blosser Road, Orchard Avenue, Southland Street, Darby Lane, South Oakglen Avenue, etc.) and along the Nipomo Mesa bluffs adjacent to agricultural areas. This cover type consists almost entirely of disturbance-adapted weedy species including cheeseweed, radish, redstem filaree, castor bean, black mustard, English plantain and bur-clover. In addition, the artificial drainage feature located adjacent to Blosser Road collects agricultural surface run-off throughout the year and is maintained (i.e. mowed) by the Santa Barbara County Flood Control District (SBCFD). The resulting wetland habitat contains many of the ruderal species listed above as well as curly dock, tall flatsedge and water cress.

**Ornamental.** A variety of trees and shrubs have been planted along Blosser Road and Orchard Road for landscaping purposes. Ornamental plantings observed within the project area include: redwood, myoporum, coast live oak, Monterey cypress, Monterey pine and juniper. In addition, escaped landscape species such as sweet alyssum were also observed along the Blosser Road drainage structure.

**Developed.** Several large developed areas, primarily residential, exist within the project area along Blosser Road, Orchard Avenue, Southland Street, South Frontage Road,

Darby Lane and South Oakglen Avenue. These areas contain many of the ornamental/landscape species and ruderal species listed above.

- *Wildlife*

The principal habitat types that would be potentially impacted by proposed project activities include those plant communities previously discussed: Coyote Brush Series, Alluvial Scrub, Riverbed, California Annual Grassland Series, Eucalyptus Series, Agricultural, Ornamental, Developed, and Ruderal (disturbed) habitat. Typical wildlife species found in association with each of these cover types are discussed below:

- *Invertebrates*

Two macro-invertebrates, the European garden snail and shoulder-band snail, were observed within the project area during field surveys. In addition, eucalyptus windrows also provide potential overwintering habitat for monarch butterfly; however, no monarch butterflies were observed during field surveys.

- *Fish*

During the time of the field surveys (February 2008), the Santa Maria River contained low water flows (i.e., flows a few cubic feet per second). No fish species were observed during the field surveys. In addition, no fish species were observed within the Blosser Road drainage structure or the agricultural run-off ponds located on the Nipomo Mesa.

However, during high flow periods the Santa Maria River has the potential to support a variety of aquatic species. In addition, the Santa Maria River is known to contain arroyo chub and is the northern most extent of the Southern California ESU (Evolutionary Significant Unit) Steelhead trout. The Southern California Steelhead is the primary fish species of concern within the Santa Maria River watershed and is Federally listed as threatened. In-stream habitat within the project area has the potential to support Southern California Steelhead and Arroyo chub during high flow periods. However, no Steelhead trout or Arroyo chub were observed during the field surveys.

- *Amphibians and Reptiles*

Amphibians observed during the field surveys included the Pacific chorus frog and the Federally threatened California red-legged frog (CRLF). Specifically, one adult CRLF and one egg mass were identified within an agricultural run-off pond along Orchard Avenue during the February 29, 2008 field survey. In addition, one adult CRLF was observed within the Blosser Road drainage structure during a CRLF survey conducted in February 2007. In addition, adult CRLF were identified within the agricultural pond on the Nipomo Mesa near the proposed horizontal directional drilling laydown area and in the agricultural pond adjacent to the levee, just west of Blosser Road during the CRLF surveys conducted in 2007. The agricultural ponds and the Blosser Road drainage structure also provide suitable conditions for other semi-aquatic species such as the

Southwestern pond turtle. In addition, ephemeral pools associated with the Santa Maria River channel may provide suitable habitat for the Western spadefoot.

Coyote brush and alluvial scrub habitat provide shade and shelter for several reptilian species. Common reptiles expected to occur within this habitat include Western fence lizard, Western rattlesnake, Common kingsnake, and Coast horned lizard, a California species of special concern. No reptiles were observed during the field surveys.

*- Birds*

Coyote brush and alluvial scrub habitat within the project area provide nesting and foraging habitat for a variety of smaller bird species as well as foraging habitat for raptors. Birds observed or expected to occur in association with the coyote brush and alluvial scrub habitat include, but are not limited to, Scrub jay, Golden crowned sparrow, California towhee, Song sparrow, Bushtit, Bewick's wren, White-crowned sparrow, White-tailed kite and Loggerhead shrike.

Eucalyptus windrows provide a substantial amount of foraging and roosting habitat for various bird species. Birds observed or expected to occur within this habitat include Yellow-rumped warbler, House finch, Great horned owl, Red-shoulder hawk, Barn owl, Red-tailed hawk, American crow and Turkey vulture. Birds observed within the annual grassland habitat include Red-tailed hawk, Northern harrier and Western meadowlark.

Birds occurring within ornamental, agricultural and ruderal/disturbed areas included Brewer's blackbird, European starling, Anna's hummingbird, Northern mocking bird, American robin, Say's phoebe and Horned lark. In addition, several waterfowl species including Mallard, Ruddy duck and American coot were observed within the detention basin along Blosser Road and have the potential to occur within the agricultural stock ponds on the Nipomo Mesa.

No active bird nests were identified within the project area during the field surveys; however, the project area may provide suitable nesting habitat for a variety of migratory birds.

*- Mammals*

Mammalian species observed and/or expected to occur within the project area include Desert cottontail, Black-tailed jackrabbit, Long-tailed weasel, Grey fox, Bobcat, Coyote, Black-tailed deer, California ground squirrel, Western gray squirrel and other small rodents. In addition, a potential American badger den was identified near the intersection of Orchard Avenue and Joshua Street.

A complete listing of the wildlife species observed during field surveys and/or expected to occur within the project area is provided in Technical Appendix F.

- *Special Status Species*

Several species known to occur within, or in the vicinity of the project area, are accorded “special-status” designation because of their recognized rarity or vulnerability to various causes of habitat loss or population decline. Some of these receive specific protection defined in Federal or State endangered species legislation. Others have been designated as “sensitive” on the basis of adopted policies and expertise of State resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities and special districts to meet local conservation objectives. Collectively this term refers to species possessing some level of local, State or Federal agency concern.

- *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, and the scientific community. Based on the literature search and nine-quadrangle CNDDDB query conducted for this project, 34 special-status plant species are known to occur within the region encompassing the project area. A complete list of these “Special Status” Plant Species is included in Technical Appendix F.

Based upon the botanical surveys conducted in 2008, an analysis of the range and habitat preferences of these regional species was conducted to identify those special-status plant species that have the potential to occur within the project area based on existing habitat and site conditions. Based on this analysis, it was determined that eight special-status plant species have the potential, however low, to occur within the project area: Straight-awned spineflower, La Graciosa thistle, Nipomo Mesa lupine, Kellogg’s horkelia, Crisp monardella, San Luis Obispo monardella, Blochman’s ragwort, Nuttall’s milk-vetch and San Bernardino aster. The following discussion presents the ecological and range information for these species:

**Straight-awned spineflower.** An annual herb that blooms from May to July and is typically found in chaparral cismontane woodland and coastal scrub habitats. Straight-awned spineflower is a CNPS List 1B.3 species. It is endemic to Monterey, San Luis Obispo and Santa Barbara Counties and is known from approximately twenty occurrences; eleven of these occurrences in San Luis Obispo. Although coastal scrub habitat occurs within the project area, no Straight-awned spineflower was observed during the field surveys.

**La Graciosa thistle.** La Graciosa thistle is a Federally endangered, State threatened species and a CNPS List 1B.1 species. This species is a perennial herb that blooms May through August and occurs in coastal dunes, brackish marshes or riparian scrub often in association with lake edges, riverbanks and other wetlands. This species is endemic to Monterey, San Luis Obispo, Santa Barbara and Ventura Counties and is known from



approximately twenty occurrences. Although riparian scrub habitat occurs within the project area, no La Graciosa thistle was observed during field surveys.

**Nipomo Mesa lupine.** Nipomo Mesa lupine is an annual herb that typically blooms from December through May and occurs in coastal dune habitat. Nipomo Mesa lupine is a Federally endangered, State threatened species and a CNPS List 1B.1 species. This species is known from only one extended occurrence of five populations on the Nipomo Mesa in San Luis Obispo County. Nipomo Mesa lupine was not observed during field surveys and therefore, is not expected to occur within the project area.

**Kellogg's horkelia.** Kellogg's horkelia is perennial herb that occurs in closed-cone coniferous forest, chaparral, coastal dunes and coastal scrub habitats. It is a CNPS List 1B.1 Species which is typically associated with sandy or gravelly soils and generally blooms from April to September. This species is known to occur in central California from the San Francisco Bay area south to Santa Barbara County. Although coastal scrub habitat occurs within the project area, no Kellogg's horkelia was observed during field surveys.

**Crisp monardella.** Crisp monardella is a rhizomatous herb that typically blooms from April to August. This species generally occurs in coastal dune and coastal scrub habitat and is a CNPS List 1B.2 species that occurs in San Luis Obispo and Santa Barbara Counties. Crisp monardella was not observed during field surveys and therefore, is not expected to occur within the project area.

**San Luis Obispo monardella.** San Luis Obispo monardella is a rhizomatous herb that inhabits coastal dunes and coastal scrub habitat associated with sandy soils. It generally blooms from May to September and is a CNPS List 1B.2 species that occurs in San Luis Obispo and Santa Barbara Counties. San Luis Obispo monardella was not observed during field surveys and therefore, is not expected to occur within the project area.

**Blochman's ragwort.** Blochman's ragwort is a CNPS List 4.2 species that typically occurs in coastal dunes and coastal floodplains. Blochman's ragwort is a subshrub. It is a perennial herb that blooms from May to October and is known to occur in San Luis Obispo and Santa Barbara Counties. A scattered population of this species (less than 100) was identified within the alluvial scrub habitat of the project area located south of the Santa Maria River channel (see Figure 21, Plant Community Map - South).

**Nuttall's milk-vetch.** Nuttall's milkvetch is a perennial herb that occurs in coastal dune and coastal bluff scrub habitat. It is a CNPS List 4.2 which is considered to have limited distribution within central California. Nuttall's milk-vetch was documented near Blosser Road during spring botanical surveys conducted in 2005; however, during focused botanical surveys conducted in May 2008 only another variety of milk-vetch was observed within the project area. Although suitable scrub habitat occurs within the project area, no Nuttall's milk-vetch was observed during the field surveys.

**San Bernardino aster.** San Bernardino aster is a rhizomatous herb that typically occurs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland habitat. It generally blooms from July to November and is known to occur in Southern California with possible hybrids having been collected in San Luis Obispo, Santa Barbara and Ventura Counties. Although coastal scrub habitat occurs within the project area, no San Bernardino aster was observed during the field surveys.

Only one special-status plant species (Blochman's ragwort) was observed within the project area.

*- Special-Status Wildlife Species*

Based on the literature search, nine-quadrangle CNDDDB query and field surveys, 36 special-status wildlife species are known to occur within the region. A complete list of these species is included in Technical Appendix F.

Based upon applicable ecological and range information for those special-status wildlife species documented within the region, it was determined that 21 special status wildlife species have a likelihood of occurrence, however low, to occur within the project area based upon the presence of potentially suitable habitat.

*- Invertebrates*

**Monarch butterfly.** The overwintering habitats for the Monarch butterfly are considered to be of special concern by CDFG. This species is known to roost in winter (usually in dense concentrations) within coastal groves of eucalyptus, cypress or pine trees. Autumnal roosts are abandoned early (November or December) by individuals seeking more favorable conditions, while permanent roosts begin forming in October and persist into February. There are several known monarch butterfly roosting areas located within coastal San Luis Obispo County. The nearest known roosting site within the vicinity of the proposed project is in Preisker Park, which is located approximately one mile east of Blosser Road. Preisker Park is an autumnal site, with a maximum monarch count of 27 in 1999. Several eucalyptus windrows occur within the project area that may provide suitable overwintering habitat. However, no monarch butterflies were observed within the project area and these windrows are small and fragmented and much less suitable for Monarchs, as compared to Preisker Park. Therefore, it is unlikely the Monarch butterfly overwinters within the project alignments, but may utilize portions of the project area for temporary roosting.

*- Fish*

**Arroyo chub.** The Arroyo chub is a California species of special concern that occurs in slow-moving or backwater sections of warm to cold streams with mud or sand substrates. Arroyo chubs are native to the Los Angeles, San Gabriel, San Luis Rey, Santa Ana and Santa Margarita Rivers and to Malibu and San Juan Creeks. They have been successfully

introduced into the Santa Ynez, Santa Maria, Cuyama, and Mojave River systems and other smaller coastal streams (e.g., Arroyo Grande Creek). The northernmost introduced population is in Chorro Creek, San Luis Obispo County. Arroyo chubs are scarce within their native range because the low-gradient streams in which they are the most successful have largely disappeared. The nearest known documented occurrences of Arroyo chub are Cuyama River (tributary to the Santa Maria River), 9.5 miles to the east and the Santa Maria estuary, approximately 10 miles west of the proposed project. This species is known to occur in the Santa Maria River and may occur within the project area during periods of surface flow.

**Southern California ESU Steelhead.** The Southern California ESU was listed as endangered by the NOAA Fisheries in 1997. Southern California Steelhead is also a California species of special concern. Steelhead have been divided into 15 evolutionary significant units (ESU's) based on similarity in life history, location, and genetic markers. The Southern California ESU includes all naturally spawned populations of steelhead and their progeny in streams from the Santa Maria River to the U.S. – Mexico border. Historical information indicates that the Santa Maria River supported a steelhead run in the early 1900s. Currently, there is no evidence suggesting the presence of this species in the Santa Maria River for several decades. However, it is assumed this species has the potential to occur in the project area within the Santa Maria River.

*- Reptiles*

**Coast horned lizard.** The Coast horned lizard is a Federal species of concern and a California species of special concern that occurs in a variety of open habitats that provide sites for basking, sandy or sandy-loam substrates for night-time burial, and a suitable prey base. It was historically distributed throughout the Central and Coast Ranges, but now occurs at scattered, disjunct locations within this range. Coast horned lizard has the potential to occur within the coyote brush and alluvial scrub habitats within the project area.

**Southwestern pond turtle.** The Southwestern pond turtle is a Federal species of special concern and a California species of special concern. It is an aquatic turtle inhabiting streams, marshes, ponds, and irrigation ditches within woodland, grassland and open forest communities. However, it requires upland sites for nesting and over-wintering. Southwestern pond turtle has the potential to occur within the agricultural run-off ponds and the Blosser Road drainage structure within the project area.

**Two-striped garter snake.** The two-striped garter snake is a California species of special concern that occurs in freshwater streams and rivers bordered by riparian woodlands from the South Coastal and Transverse Ranges to the coast. This species has been recorded in the intermittently flooded marsh habitat and pools within the Santa Maria River floodplain, in the estuary lagoon and in marsh ponds along the Santa Maria River and, as such, has the potential to occur in the project area.

- *Amphibians*

**Arroyo toad.** The Arroyo toad is a Federally listed endangered species and a California species of special concern. 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. The majority of the remaining populations in Santa Barbara and Ventura counties are located on the Los Padres National Forest, and USFWS has designated the Sisquoc and upper Santa Ynez Rivers as critical habitat for the Arroyo toad. These critical habitat locations are east and south of the project area, respectively. The nearest known occurrence of the species is within the Sisquoc River, approximately 15 miles to the east-southeast. This species is not expected to occur in the vicinity of the project area due to the lack of stream pools from early April to early July required for breeding.

**California red-legged frog.** The California red-legged frog (CRLF) is a Federally listed threatened species and a California species of special concern. It formerly ranged from Northern California south along the Pacific Coast, west of the Cascade Mountains and the Sierra Nevada, to Northern Baja California. Populations remain in the San Francisco Bay area, along the California coast, and on the western edge of the Central Valley.

The CRLF occurs in different habitats depending on their life stage and season. All stages are most likely to be encountered in and around breeding sites, which include coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, ponded and backwater portions of streams and artificial impoundments such as stock ponds, irrigation ponds and siltation ponds. This species prefers dense emergent and bank vegetation including willow, cattail and bullrush. The absence of these plant species within the site does not exclude the possibility that the site provides red-legged frog habitat, but the presence of one or all of these plants is an important indicator that the site may provide foraging or breeding habitat.

CRLF has been observed in several locations within the project area. A U.S. Fish and Wildlife Service protocol-level survey was conducted by the field biologist in 2007 in order to determine the presence or absence of this species within the project area. During the 2007 protocol-level surveys, adult CRLF were observed within the agricultural pond on the Nipomo Mesa approximately 500 feet northeast of the proposed horizontal directional drilling laydown area, three egg masses were observed within the agricultural pond along the Santa Maria River levee approximately 0.75-mile west of Blosser Road and one adult CRLF was observed within the Blosser Road drainage. In addition, one adult CRLF and one egg mass were observed during a subsequent 2008 survey within an agricultural pond along Orchard Avenue. (see Figure 21, Plant Community Map – South and Figure 22, Plant Community Map - Central).

**California tiger salamander.** In 2004, the USFWS down-listed the Santa Barbara County population of the California tiger salamander (CTS) to threatened status, but included the entire species throughout its range. In addition to this species' Federal status, CTS are also a California species of special concern.

Adult and juvenile CTS emerge from underground burrows at night between late autumn through early spring and travel to breeding pools. Most breeding pools are ephemeral (vernal). Use of permanent aquatic sites as breeding habitat is unlikely unless these features lack predators such as introduced fish and bullfrogs. Man-made ponds can function as salamander breeding habitat as long as these ponds are kept free of fish and bullfrogs and possess suitable seasonal hydrologic characteristics. Adult salamanders remain at the breeding site for only a few days after breeding, then move back to their terrestrial retreats (small mammal burrows) well away from the pool.

The nearest known documented occurrence of this species was located within the vicinity of the Santa Maria Airport. Due to the lack of suitable habitat (vernal pools) in the project vicinity, California tiger salamander is not expected to occur within the project area.

**Western spadefoot.** Western spadefoot toad is a California species of special concern. Spadefoot toad emerge from underground burrows during the spring and breed in temporary pools. Western spadefoot toad occurs primarily in grassland habitats, although it is occasionally found in valley or foothill hardwood woodlands. The nearest known documented occurrence of this species was located within a mile of the proposed pipeline alignment near Blosser Road. Western spadefoot has the potential to occur, however low, within the ephemeral pools of the Santa Maria River in the project area.

*- Birds*

**Burrowing owl.** The Burrowing owl is a California species of special concern and Federal species of special concern. The species is typically found throughout the Central Valley, in the San Francisco Bay area and at scattered locations along the coast. The species is a year-round resident in annual and perennial grasslands or other vegetation communities that support little to no tree or shrub cover. In California, the species utilizes ground squirrel burrows as year-round shelter and seasonal nesting habitat. However, burrowing owls also use human-made structures such as culverts, corrugated metal pipes, debris piles or openings beneath pavement as shelter and nesting habitat. No burrowing owl burrow sites were observed within the project area during the field surveys. The nearest known documented occurrence of this species is located northwest of the Santa Maria Airport. Due to the lack of field evidence and minimal habitat available, this species is not expected to occur within the project area.

**Cooper's hawk.** Cooper's hawk is a California species of special concern during nesting periods; primarily due to the loss of its riparian nesting habitat. Preferred nesting habitat typically consists of dense stands of coast live oak, riparian or other forest habitat located near water. Cooper's hawk is an uncommon permanent resident and fairly common fall transient along the central coast. This species has been observed within riparian habitat just east of the proposed project area. However, the riparian habitat along the Santa Maria River channel is sparse and suitable nesting habitat is not present within the project area. Nevertheless, this species has the potential to occur within the project area for the purposes of foraging.

**Least Bell's vireo.** Least Bell's vireo is a State and Federally listed endangered species. This bird nests in the edges of riparian scrub or riparian forests. The nearest known documented occurrence of this species is the Hanson Aggregate property, adjacent to the Sisquoc River. This species has not been reported in the Santa Maria River or Nipomo Creek riparian habitats. Riparian habitat along the Santa Maria River channel is considered marginal habitat due to its limited width, adjacent development and fragmented nature. However, it is possible that this species occasionally forages within or adjacent to the project area.

**Loggerhead shrike.** Loggerhead shrike is a Federal species of special concern and a California special concern species during nesting periods. The species generally occurs in a variety of open grassland, oak savannah, shrub-land, and other similar habitats. Because this species was observed within the project area and given the presence of suitable habitat, this species has the potential to utilize the project area for nesting and foraging purposes.

**Horned lark.** Horned lark is on the California special concern species watch list and commonly occurs in grasslands and other open habitats with low, sparse vegetation. Horned lark was observed within the project area and given the presence of suitable habitat, this species has the potential to utilize the project area for nesting and foraging purposes.

**Sharp-shinned hawk.** The Sharp-shinned hawk is a California species of special concern during nesting periods. This species typically builds nests within woodland habitat where they forage on small birds. This species is a common winter visitor and resident along coastal ridges foraging in woodland and semi-open habitats. Although suitable habitat for this species is fragmented (isolated eucalyptus windrows), this species has the potential to occur occasionally within the project area for the purposes of foraging.

**Yellow warbler.** The Yellow warbler is a California species of special concern during nesting periods. Within San Luis Obispo County, this species is a fairly common summer transient utilizing deciduous riparian habitats. This species typically nests within riparian woodland habitat of the coastal foothills from mid-April to early August. The nearest known occurrence of this species was located at Hanson Aggregates, near the Sisquoc River. Riparian habitat along the Santa Maria River channel is considered marginal habitat due to its limited width, adjacent development and fragmented nature. However, it is possible that yellow warbler occasionally forages within or adjacent to the project area.

**White-tailed kite.** The White-tailed kite is a California fully protected species during nesting periods. The White-tailed kite typically occurs in coastal and valley lowlands, usually associated with agricultural lands and open fields. This species is considered an uncommon resident of most of San Luis Obispo County; however, this species was observed within the project area during the February 29, 2008 field survey. Suitable nesting habitat for White-tailed kite may occur along the Santa Maria River and surrounding habitats. Therefore, this species has the potential to nest and forage within the project area.

**Tricolored blackbird.** The Tricolored blackbird is a California species of special concern. This species requires open water habitat areas surrounded by cattail marshland for the purposes of foraging and nesting. Tricolored blackbird was observed at the agricultural pond on the Nipomo Mesa located approximately 500 feet northeast of the proposed horizontal directional drilling laydown area during the 2008 field survey (see Figure 22, Plant Community Map – Central). Because this species was observed within the project area and the presence of suitable breeding habitat (i.e., freshwater pond with bullrush), tricolored blackbird has the potential to utilize the project area for the purposes of nesting and foraging.

- *Mammals*

**Pallid bat.** The pallid bat is a California species of special concern. The pallid bat has a range that extends from southern British Columbia to central Mexico and east to Oklahoma and northern Texas. Suitable roosting habitat includes crevices in rocky outcroppings, caves, mines, hollow trees and buildings. The nearest known documented occurrence of this species is a day roost consisting of crevices beneath the Garey Bridge, approximately ten miles east-southeast of the project area. This species generally forages no more than three miles from its day roost; therefore, it is not expected to occur within the project area.

**American Badger.** The American badger is a California species of special concern. This species typically occurs in drier open stages of most shrub, forest, and herbaceous habitats with friable soils and open, uncultivated ground. A potential burrow was identified during the 2008 surveys within coyote brush near the intersection of Orchard Avenue and Joshua Street. Although, no American badgers were observed during the field surveys, this species has the potential to occur within the project area.

- *Regulated Habitat*

- *Sensitive Habitats*

The California Natural Diversity Data Base has inventoried natural communities and ranked them according to their rarity and potential for loss. Based on the CNDDDB query for the project area, central dune scrub, central foredune, coastal and valley freshwater marsh, and southern vernal pool are considered sensitive natural communities that have been documented within the vicinity of the proposed project area. However, based on past and recent field surveys, these habitats do not exist within the project area and therefore will not be impacted as a result of the proposed project.

- *Critical Habitats*

In 2004, the USFWS designated critical habitat for the Santa Barbara County population of the California Tiger Salamander. Critical habitat identifies specific areas that are essential to the conservation of this species and areas that may require special management considerations or protection (i.e., aquatic and upland breeding habitats).

The nearest known critical habitat unit for tiger salamander is Critical Habitat Unit 1 – Western Santa Maria/Orcutt. This unit is bordered by Highway 135 on the east and the City of Santa Maria to the north. Because the project area is outside of the proposed critical habitat for the Santa Barbara County population, this regulated habitat will not be impacted as a result of the proposed project.

Santa Maria River and its tributaries are known steelhead habitat and are considered an integral component of the Southern California ESU Steelhead. In 2005, the NOAA Fisheries designated critical habitat for 19 salmon and steelhead populations on the west coast, including those contained in the South central coast steelhead ESU. This included designation of the Santa Maria River Hydrologic Unit 3312 which includes the Santa Maria and Siquoc River systems and associated tributaries, excluding the Cuyama River. Because the proposed project occurs within the limits of existing critical habitat for the Southern California ESU Steelhead, this regulated habitat has the potential to be impacted as a result of project implementation.

- ***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 Maria River and associated tributaries including Nipomo Creek are migration corridors for wildlife species moving within the region and coastal habitat areas to the west. These migration corridors are especially critical through areas where human activities (i.e., urban development, agriculture, etc.) would otherwise prohibit or impair the movement of species between habitat areas.

- ***Regulatory Setting***

- *Special Status Species*

The Federal Endangered Species Act (FESA), administered by the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration – Fisheries (NOAA Fisheries), provides protection to species listed as threatened or endangered. FESA also provides protection to those species proposed to be listed under FESA or critical habitats proposed to be designated for such species. In addition to the listed species, the Federal government also maintains lists of species that are neither formally



listed nor proposed, but could potentially be listed in the future. Species on this list receive “special attention” from federal agencies during environmental review, although they are not protected otherwise under the FESA. The candidate species include taxa for which substantial information on biological vulnerability and potential threats exist and are maintained in order to support the appropriateness of proposing to list the taxa as an endangered or threatened species.

Section 9 of the 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 with USFWS 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.

The USFWS and NOAA Fisheries 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.

The USFWS also administers the federal Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, it is unlawful to take, possess, buy, sell, purchase, or barter any listed migratory bird, including feathers or other parts of birds, nests, eggs or products, except as allowed by implementing regulations.

The California Department of Fish and Game (CDFG) administers a number of laws and programs designed to protect fish and wildlife resources. Principal among these is the California Endangered Species Act of 1984 (CESA) that regulates the listing and take of threatened and endangered species. Under the 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 also maintains lists of “candidate species” which are species that the CDFG has formally noticed as under review for addition to the threatened or endangered species lists. California candidate species are afforded the same level of protection as listed species. CDFG also designates “species of special concern” which 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 species of special concern list is intended by CDFG as a management tool to call attention to declining populations and focus efforts on decreasing threats to long-term viability.

CDFG administers other State laws designed to protect wildlife and plants, including those laws stated within Fish and Game Code Section 3511, 3503, 3503.5 and the California Native Plant Protection Act of 1977. Pursuant to the California Fish and Game Code, CDFG designates species that are afforded “fully protected” status. Under this protection, designated species can only be taken or possessed with a permit.

CDFG manages the California Native Plant Protection Act of 1977 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.

Special-status species of the project area are afforded protection by the Counties of Santa Barbara and San Luis Obispo under goals and polices contained in the County of Santa Barbara General Plan, the County of San Luis Obispo General Plan, the South County Area Plan (2002) and the City of Santa Maria General Plan. These documents provide a framework of policies designed to protect special-status species and sensitive habitat areas.

*- Waters and Wetlands*

The Army Corps of Engineers (Corps) is responsible for the issuance of permits for the placement of dredged or fill material into waters of the United States (waters) pursuant to Section 404 of the Clean Water Act. As defined by the Corps, waters 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.

Wetlands are a special category of waters and are 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 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.”

In addition, a wetland definition has been adopted by the USFWS to include both vegetated and non-vegetated wetlands, recognizing that some types of wetlands may lack vegetation (e.g., mudflats, sandbar, rocky shores and sand flats), but still provide functional habitat for fish and wildlife species.

Pursuant to Section 1602 of the California Fish and Game Code, CDFG requires a Streambed Alteration Agreement 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.

Unlike USFWS, the CDFG definition of wetlands 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.

The County of San Luis Obispo General Plan, the Santa Barbara County General Plan, and the City of Santa Maria identify a series of unique plant or animal habitats including the following: habitat of rare, endangered or threatened plant or animal species as classified by State and Federal agencies and the California Native Plant Society (CNPS); wetlands and marshes; and sensitive natural communities as identified in the CDFG California Natural Diversity Data Base (CNDDB).

## **2. Thresholds of Significance**

An impact to biological resources would be considered significant if the proposed project:

- Results in 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 CDFG, the USFWS or the NOAA Fisheries;
- Results in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulation, or by the California Coastal Commission, CDFG, USFWS or NOAA Fisheries;
- Results in a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Creates a substantial interference 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;

- Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan;
- Results in a substantial reduction of habitat of a fish and wildlife species;
- Causes the population of a fish or wildlife population to drop below self-sustaining levels;
- Threatens to eliminate a plant or animal community;
- Conflicts with any local polices or ordinances protecting biological resources. For the purpose of this report, relevant goals and policies regarding sensitive resources from the San Luis Obispo County Land Use Ordinance, South County Area Plan, were used to assess conflicts with local policies.

### 3. Project Impacts

- *Short-Term Impacts*

**Impact D-1:** *Construction activities within the proposed pipeline alignments, water storage tank and pump station locations may adversely affect non-listed wildlife occupying adjacent habitats within the Santa Maria River wildlife migration corridors.*

Proposed pipeline alignment, water storage tank and pump station locations would be disturbed by construction-related activities. In addition, the proposed horizontal directional drilling (HDD) operations would result in short-term construction activity along the southern perimeter of the Santa Maria River and on the Nipomo Mesa.

In general, construction-related disturbance (noise, dust, heavy equipment and truck traffic) may prevent local wildlife species from foraging and breeding within portions of the Santa Maria River and adjacent habitat areas. However, these adverse effects would only affect a small portion of available habitat for a relatively short period. Periods of intense activity would likely be limited to several months at any one project location. Due to the relatively small area of habitat to be affected by project operations and the short duration of overall impacts, no significant impacts upon non-listed wildlife or their foraging or breeding habitats is expected due to project construction activities. Moreover, areas of the proposed pipeline alignments located within existing residential areas would not be expected to result in significant effects to local wildlife because the new pipeline segments would be installed within previously disturbed and/or currently developed areas (i.e., within existing paved roadways, etc.).

Conversely, drilling activities adjacent to the Santa Maria River may reduce the quality of this established wildlife movement corridor by introducing another source of disturbance (noise, dust, human presence, etc.). However, the proposed project has been designed to avoid and/or minimize direct impacts to the Santa Maria River channel and surrounding alluvial scrub habitat areas for only a short period. Due to the small area affected,

location of the horizontal directional drilling operations and laydown areas outside the river channel and the short duration of disturbance, impacts to this wildlife movement corridor are considered to be less than significant.

**Impact D-2:** *Construction activities within the proposed pipeline alignments, storage tank and pump station locations could adversely affect nesting activities of protected migratory birds and raptors.*

Raptor and migratory bird species protected under the Migratory Bird Treaty Act and the California Fish and Game Code may nest along portions of the pipeline alignments (i.e., eucalyptus woodland) and the areas adjacent to the Santa Maria River and Nipomo Mesa affected by the proposed horizontal directional drilling operations. These include ground nesters (Western meadowlark and Lark sparrow), small tree/shrub nesters (Bushtit, American robin, Northern mockingbird, Loggerhead shrike, House finch, and Lesser goldfinch), freshwater marsh nesters (Red-winged blackbird) and several raptors which require large trees, such as eucalyptus for nesting purposes (Turkey vulture, Red-tailed hawk, Red-shouldered hawk, Great-horned owl and Barn owl). Short-term impacts to these species may occur from vegetation clearing, debris removal, dust deposition and noise disturbance associated with project-related trenching and general construction activities and traffic. Specifically, vegetation removal and grading activities may significantly impact nests, nestlings, or hatchlings of these protected bird species. Scheduling pipeline, storage tank and pump station construction outside the nesting season or conducting pre-construction surveys would result in potentially significant, but mitigable impacts.

**Impact D-3:** *Construction activities could adversely affect special-status terrestrial and avian species potentially occurring in the project area.*

The proposed project includes the installation of approximately 5,000 linear feet of 18-inch pipeline along the east side of Blosser Road using conventional open trench construction. At Atlantic Place, approximately 300 linear feet of 24-inch carrier pipe will be installed inside a 36-inch steel casing which will be placed under the Santa Maria levee at this location using perpendicular jack-and-bore construction methods. An existing access road will be utilized to allow equipment and construction crew access to the north side of the levee at Blosser Road. The levee access road and surrounding areas have been historically disturbed from past and ongoing agricultural activities in the area which, however, still contains fragmented annual grassland and coyote brush scrub habitat areas.

Once the pipeline is constructed beneath the levee, approximately 900 linear feet of 24-inch pipeline will be installed in a north and northwest direction through open trench construction leading to the horizontal directional drilling site along the southern boundary of the Santa Maria River channel. The area proposed for disturbance consists primarily of annual grassland and active agricultural fields. The proposed drilling will begin with the drilling of a pilot hole and the insertion of a 36-inch steel casing at one end of the underground pipeline route. Pipes will be laid out and assembled within a pre-designated

laydown area at one end of the pipeline segment. At the surface location on the Nipomo Mesa, approximately 2,500 linear feet of 24-inch waterline will be installed using open trench construction to the proposed Pump Station No. 2 and proposed reservoir site adjacent to Joshua Street. Lastly, the proposed project will require provision of other infrastructure facilities including a water storage tank, pump stations and pressure reducing valves as well as metering, electrical and communications equipment.

The proposed short-term construction activities discussed above have the potential to adversely affect terrestrial special-status wildlife species found in the project area. Specifically, the Coast horned lizard may be present within and/or adjacent to the proposed work areas along the southern boundary of the Santa Maria River during the construction phase of the project. Construction activities in this area would include both the proposed jack-and-bore and proposed horizontal directional drilling laydown area operations along the southern boundary of the Santa Maria River. This species prefers open sandy areas, washes and floodplains with sufficient red-ant populations. Suitable habitat for this species is predominately found along the sandy open areas along the southern boundary of the Santa Maria River channel. It is likely that historical disturbance, including agriculture and encroachment of residential development, has resulted in a decreased population of Coast horned lizard within the project area. As such, the number of individuals affected is expected to be very small. However, increased mortality of this species would be expected to affect the overall distribution and/or survival of this species in the region. Therefore, impacts to coast horned lizard are considered to be potentially significant but mitigable.

Special-status bird species such as the Sharp-shinned hawk that have the potential to periodically frequent the project area for the purpose of foraging and may be temporarily affected by construction activities due to the short-term loss of foraging opportunities. However, Loggerhead shrike and California horned lark could potentially be impacted during construction through the disruption of breeding activities and/or short-term loss of foraging opportunities within areas of construction. This would be most applicable within the temporary proposed horizontal directional drilling laydown area along the south side of the Santa Maria River. The Northern harrier could also be affected during the breeding season by the short-term disturbance of the open grassland areas along the south side of the river channel. Further, the White-tailed kite and Cooper's hawk are likely to be affected by the short-term disturbance of both foraging habitat and potential nest sites, including the eucalyptus woodland windrows located along Blosser Avenue. Lastly, the special-status Tricolored blackbird was observed within the agricultural stock pond located directly northeast of the pipeline alignment on the Nipomo Mesa during the 2008 spring survey (see Figure 22, Plant Community Map – Central) and could be affected during its breeding period by pipeline trenching and proposed horizontal directional drilling operations at this location. Due to the relatively small area of disturbance and short-term construction period, overall impacts to foraging special-status raptors are expected to be minimal. Surveying of potential nesting habitat of all migratory and special-status bird species in the project area prior to construction will result in potentially significant but mitigable impacts.

Potential impacts to resident special-status animal species, California horned lizard, Loggerhead shrike (nesting), California horned lark (nesting), Northern harrier (nesting), Cooper's hawk (nesting), White-tailed kite (nesting), and Tricolored blackbird (nesting) are considered to be significant but mitigable with implementation of measures to avoid or minimize impacts to these special-status species. Impacts to migratory special-status species (Sharp-shinned hawk) that have the potential to periodically frequent the project area for the purpose of foraging are considered short-term and less than significant.

**Impact D-4:** *Pipeline construction activities could adversely affect aquatic and semi-aquatic special-status species within the Santa Maria River, Blosser Road drainage canal, and agricultural stock ponds located along the Nipomo Mesa.*

Special-status fish species associated with the Santa Maria River (Arroyo chub and Southern steelhead) have the potential to occur within the river channel during high flow periods (between November and March). Further, the Blosser Road drainage canal and agricultural stock pond located along the Nipomo Mesa provide habitat for the Federally-listed California red-legged frog (CRLF). Other semi-aquatic, special-status species such as the Southwestern pond turtle and the Two-striped garter snake also have the potential to occur in temporarily ponded areas of the Santa Maria River during wet periods, the Nipomo Creek confluence with the Santa Maria River and/or within the agricultural stock pond(s) along the Nipomo Mesa. The proposed pipeline routes from the northern pipe laydown area to the proposed Pump Station No. 2/Water Storage Tank site may impact California red-legged frog due to the close proximity of proposed construction activities to the agricultural pond on the Nipomo Mesa with known occurrences of CRLF. Trenching activities associated with the proposed pipeline installation have the potential to reach shallow groundwater, thereby forming temporary aquatic habitat suitable for dispersing juvenile and adult CRLF. As such, pipeline installation activities could result in direct take of Federally-listed CRLF.

During proposed site disturbance activities, including pipeline excavations and trenching, levee jack-and-boring and horizontal directional drilling operations beneath the Santa Maria River, down-gradient sediment and incidental spills or leaks of oils or fluids from equipment and machinery may result in a pollutant discharge into the Santa Maria River corridor and floodplain, Nipomo Mesa agricultural stock ponds and associated drainage channels and/or the Blosser Road drainage canal. Such inadvertent spills and/or discharges would have the potential to result in direct impacts to special-status aquatic and semi-aquatic species or result in the degradation of existing wetland/riparian vegetation and overall water quality. Further, mobile semi-aquatic, special-status species, such as the California red-legged frog have the potential to occur within and/or adjacent to proposed project segments containing suitable habitat, including the proposed pipeline alignment along the Blosser Road drainage canal and the proposed horizontal directional drilling laydown area on the Nipomo Mesa. This species is known to travel up to two miles between aquatic sites during the rainy season and therefore could be present anywhere in the project area during this period.

Proposed horizontal directional drilling operations have the potential to result in frac-out into the Santa Maria River which could result in the release of drilling mud, increased turbidity, and localized degradation of riparian vegetation and water quality within the channel. Such water quality and habitat effects have the potential to result in significant impacts to Steelhead and Arroyo chub within the river system.

Impacts to the Arroyo chub, Southern California ESU Steelhead, California red-legged frog, Southwestern pond turtle and Two-striped garter snake are considered to be potentially significant but mitigable with implementation of mitigation measures to avoid or minimize impacts to these species.

**Impact D-5:** *Construction activities could result in short-term impacts to the sensitive habitat areas of the Santa Maria River, including jurisdictional Waters of the United States and designated critical habitat of the Southern California ESU Steelhead.*

Surrounding sensitive habitats include the riparian corridors of Santa Maria River, Nipomo Creek and associated mixed willow series, a sensitive plant community and wetlands under the definition adopted by CDFG and USFWS. Although the riparian corridor of nearby Nipomo Creek and associated mixed willow series habitat areas would be entirely avoided by the project operations through project design, short-term impacts to the sensitive habitats of the Santa Maria River, including alluvial scrub and areas considered Waters of the U.S. may result from temporary horizontal directional drilling operations including heavy equipment operation, temporary materials staging and in the event of a “Frac-out” along the river floodplain (i.e., worst-case scenario). This could result in direct adverse impacts to sensitive habitat of the Santa Maria River channel, including areas under jurisdiction of regulatory agencies, such as the U.S. Army Corps of Engineers, CDFG, and RWQCB and designated critical habitat of the Southern California ESU Steelhead. Implementation of mitigation measures to avoid or minimize impacts to sensitive species would result in a potentially significant, but mitigable impact.

- ***Long-Term Impacts***

**Impact D-6:** *Horizontal directional drilling operations along the southern boundary of the Santa Maria River have the potential to result in the permanent loss of special-status plant species.*

The only special-status plant species observed within the project boundaries during surveys conducted was Blochman’s ragwort. Specifically, a fairly dense population (less than 100 plants) is located directly north and bordering the proposed horizontal directional drilling laydown area along the southern boundary of the Santa Maria River (see Figure 21, Plant Community Map - South). This plant has been designated as a List 4 species by the California Native Plant Society, which denotes a plant of limited distribution or infrequent throughout a broader area in California and vulnerability or susceptibility to threat appears low at this time. Therefore, this species is not considered rare or endangered. The proposed project has the potential to result in the loss of only a small number of individuals of this species, however, is not expected to substantially



affect the distribution or survival of this species in the region. Therefore, potential long-term impacts to special-status plant species are considered to be less than significant.

**Impact D-7:** *The proposed project may result in long-term impacts to the large eucalyptus trees located along the proposed pipeline alignment located on Southland Street, Orchard Road, South Frontage Road and Darby Lane. These trees may represent potential habitat for Monarch butterflies or nesting raptors.*

The majority of the proposed waterline extension will occur in areas generally lacking significant biological resources. The pipeline alignment along Blosser Road would also be installed along the east side of the drainage channel away from the root systems of the existing eucalyptus windrow at this location. Further, impacts to biological resources located along Orchard Avenue would be minimized by tying the new pipeline alignment(s) into an existing 12-inch pipeline that is located along this roadway. However, large eucalyptus trees located along Southland Street, Orchard Road, South Frontage Road and Darby Lane. (see Figure 23, Plant Community Map - North) represent potential habitat for Monarch butterflies or nesting raptors, which could be impacted by proposed trenching activities. Specifically, pipelines installed within the drip line of these trees could result in direct impacts to vital root systems, which may lead to potential long-term impacts such as susceptibility to pests/diseases and/or death. Avoidance of root systems of large eucalyptus trees would result in potentially significant, but mitigable impacts.

**Impact D-8:** *Long-term impacts associated with the potential generation of silt and sedimentation sources along the pipeline alignments, water storage tank and pump stations could result in adverse effects to adjacent habitat areas and associated special-status wildlife species.*

Terrestrial and semi-aquatic, special-status wildlife species potentially present within the pipeline alignments, storage tank and pump stations includes the Coast horned lizard, CRLF, Southwestern pond turtle and Two-striped garter snake. The majority of these species (if present) would be expected to forage and possibly breed within the alluvial scrub and aquatic habitats along the Santa Maria River, the Blosser Road drainage channel and the agricultural stock ponds on the Nipomo Mesa. The proposed project will result in trenching and localized surface disturbance of ruderal, agricultural, and California annual grassland habitat areas throughout the project area. Potential long-term surface erosion of the recontoured pipeline alignments could result in the degradation of adjacent habitat areas over time due to increased silt and sedimentation. Further, uncontrolled runoff from the newly proposed water storage tank and pump stations along Blosser Road and on the Nipomo Mesa could result in long-term silt and sedimentation impacts to adjacent drainages and secondary effects to associated aquatic habitats and residing special-status species. Implementation of mitigation measures to avoid or minimize impacts to habitat areas would result in potentially significant but mitigable impacts.

**Impact D-9:** *Pipeline operation and maintenance activities may result in long-term adverse impacts to special-status species.*

The proposed project will include the construction of water storage facilities and two pump stations along the pipeline alignments. This would include one pump station along the west side of Blosser Road and another pump station on the Nipomo Mesa near Orchard Avenue. These newly-installed facilities would result in the addition of a permanent noise source to the project area as well as potential additional source of night-time lighting. Specifically, each pump station will contain four, 75 horsepower pumps housed within an enclosed booster station structure. The structures will be designed to insure minimal increase of exterior noise levels due to pump operations. It is anticipated that the facilities would also require periodic inspections and routine maintenance to ensure proper function and operation of the pumps and water storage facilities.

As discussed above, the drainage channel located along Blosser Road provides suitable habitat for the California red-legged frog which was identified in the drainage channel during the 2007 field survey. Further, the rows of eucalyptus trees along Blosser Road provide suitable nesting habitat for a number of migratory birds and raptors. Lastly, the southern boundary of the Santa Maria River provides suitable habitat for the Coast horned lizard, migratory birds, and, when water is present, a number of semi-aquatic, special-status species including, the Southwestern pond turtle and Two-striped garter snake. Although, the new noise source associated with the water storage tank and pump station facilities (including periodic maintenance) is expected to be negligible due to structure design coupled with the current and ongoing level of agricultural activities within these areas, these new lighting sources would have the potential to result in adverse impacts to California red-legged frog and other special-status wildlife due to increased glare. Shielding of facility lighting away from adjacent wildlife habitat areas would result in long-term light and glare impacts that are potentially significant but mitigable impacts. Long-term lighting and glare impacts are considered to be potentially significant but mitigable.

#### **4. Mitigation Measures**

The following measure addresses Impact D-2, impacts upon nesting activities of protected migratory birds and raptors.

**D-1:** Pipeline, water storage tank and pump station construction operations shall be conducted prior to, or after, the nesting season (February 15 to September 15) to avoid any potential impacts to nesting birds. This shall include any necessary vegetation and/or tree removals which could disrupt nesting birds. Therefore, construction activities should be conducted between the months of October and January to the extent feasible.

If the above measure is not feasible, pre-construction surveys shall be conducted by a qualified biologist two weeks prior to the initiation of construction activities

initiated between February 15 and September 15 to identify potential bird nesting sites.

- If active nest sites of common bird species protected under the Migratory Bird Treaty Act (e.g., Northern mockingbird, House finch, etc.) and Fish and Game Code Sections 3503 and 3503.5 are observed within 300 feet of construction activities, then the project shall be modified and/or delayed as necessary to avoid direct take of the identified nests, eggs and/or young.
- If active nest sites of raptors and/or species of special concern are observed within the vicinity of project construction activities, construction shall avoid the nest site or be terminated until the California Department of Fish and Game is contacted and an appropriate buffer zone around the nest site is established. Construction activities in the buffer zone shall be prohibited until the young have fledged the nest or the nest is abandoned.

The following measures address Impact D-3, impacts upon special status terrestrial and avian species.

- D-2:** All equipment staging and construction crew parking areas shall be located within pre-designated staging areas identified on construction plans which avoid identified sensitive habitats as determined by a qualified biological monitor. This shall include pre-designation of all staging areas, proposed horizontal directional drilling and jack-and-bore operations. Additionally, all construction access routes shall be established in previously disturbed areas and/or existing roadways.
- D-3:** Exclusionary and silt fencing will be erected at the boundaries of the construction areas to avoid equipment and human intrusion into adjacent habitats with emphasis on protection of areas containing special-status species. The exact location of exclusionary and silt fencing for each construction area shall be determined by a qualified biological monitor. The fencing shall remain in place throughout the construction phase for each project component.
- D-4:** A qualified biological monitor shall conduct a worker orientation for all construction contractors (site supervisors, equipment operators and laborers) which emphasizes the presence and identification of special-status species within the project area, their habitat requirements and applicable regulatory policies and provisions regarding their protection and measures being implemented to avoid and/or minimize impacts.
- D-5:** If nighttime construction activities are warranted, all equipment lighting shall be shielded away from adjacent wildlife habitat areas and the open sky in order to minimize lighting/glare impacts of wildlife while still providing safe working conditions for construction personnel.
- D-6:** A dust control program during the construction phase of the project shall be implemented to minimize dust impacts to adjacent vegetation communities and associated special-status species (see Section V.J. Air Quality subsection 5, Mitigation Measures).

- D-7:** A qualified biologist shall conduct a pre-activity survey to determine presence/absence of California horned lizard within and adjacent to the horizontal directional drilling laydown areas and jack-and-bore locations along the southern boundary of the Santa Maria River. Surveys shall only be required during the active period of California horned lizards (generally April through September). If California horned lizards are identified adjacent to and/or within work areas, hand rakes or an equivalent method shall be utilized by the biologist in order to scarify the ground surface and encourage the horned lizards (and other wildlife) to vacate the immediate area prior to construction. Alternatively, drift fences shall be used to capture horned lizards. As necessary, the qualified biologist shall physically relocate any California horned lizards to suitable habitat located outside the construction zone(s). Procedures and protocols for relocation shall be based up on pre-project consultation with the California Department of Fish and Game.
- D-8:** A qualified biological monitor shall be on-site during all vegetation clearing and shall periodically monitor the project area during construction activities in order to inspect protective fencing, equipment staging areas and to physically relocate or remove any special-status wildlife species entering the construction zone (e.g., California horned lizard, etc.). All special-status species shall be relocated to suitable habitat located outside the construction zone by the qualified biologist. Exact procedures and protocols for relocating shall be based upon pre-project consultation with California Department of Fish and Game.
- D-9:** Nesting bird surveys shall be conducted between February 15 and August 15 to identify nest sites of special-status bird species including Loggerhead shrike, California horned lark, Northern harrier, Cooper's hawk, White-tailed kite and Tricolored blackbird.

The following measures address Impact D-4, impacts upon special-status aquatic or semi aquatic species.

- D-10:** Site disturbance and construction activities associated with the Santa Maria River pipeline crossing, including the horizontal directional drilling operations shall not occur during the rainy season (October 15 to April 15). No construction activities shall occur during or immediately following a rain event or if water is flowing within the Santa Maria River.
- D-11:** A qualified biological monitor shall conduct a worker orientation which emphasizes the presence of semi-aquatic, special-status species within the project area (e.g., California red-legged frog, Two-striped garter snake, etc.), their habitat requirements, applicable regulatory policies and provisions regarding their protection and measures being implemented to avoid and/or minimize impacts.
- D-12:** The Blosser Road drainage canal shall be illustrated on all final construction plans. At no time shall any equipment and/or materials staging be allowed within the bed or banks of the drainage feature. In addition, a row of silt fencing or equivalent shall be installed along the perimeter of the drainage canal during project operations to prohibit CRLF movement into the work zone.

**D-13:** All work areas within 100 feet of known California red-legged frog habitat shall be surveyed by a qualified biologist each day prior to the initiation of construction activities. As necessary, the qualified biologist shall physically relocate semi-aquatic, special-status species (e.g., Southwestern pond turtle, Two-striped garter snake, etc.) and common semi-aquatic species (e.g., Western toad, Pacific chorus frog, etc.) to suitable habitat areas located outside the construction zone(s). Exact procedures and protocols for relocation of the special-status species shall be based upon pre-project consultation with the California Department of Fish and Game. In the event California red-legged frog is identified in a work area, all work shall cease until the California red-legged frog has safely vacated the work area. At no time shall any California red-legged frog be relocated and/or affected by project operations without prior approval from the U.S. Fish and Wildlife Service. Exclusionary fencing will be erected at the boundaries of the construction areas to avoid equipment and human intrusion into adjacent habitats with emphasis on protection of areas containing special-status species. In addition, silt fencing will be installed around temporary aquatic habitats (i.e. trenches that have perched groundwater) that have formed during project activities, to minimize the potential for migration of CRLF from the adjacent agricultural pond. The exact location of exclusionary and silt fencing shall be determined by a qualified biological monitor. The fencing shall remain in place throughout the construction phase for each individual project component.

**D-14:** Prior to commencing construction, NCSD shall prepare the following plans and agency permit applications, and shall implement all plans prior to, during and immediately following construction activities.

- In compliance with the San Luis Obispo County Land Use Ordinance, the District shall prepare an Erosion and Sedimentation Control Plan (ESCP) outlining the measures to address both temporary (i.e., site disturbance, stock piling and horizontal directional drilling activities) and final (i.e., post-construction) methods for stabilizing soil and minimizing soil loss from the proposed project site. All applicable measures shall be included on final construction plans and adhered to throughout the project.
- All project operations shall comply with the requirements under the General Construction Storm Water General Permit, issued by the State Water Resources Control Board. Such requirements will include preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall include provisions for the installation and maintenance of Best Management Practices to reduce the potential for erosion of disturbed soils at the project site.
- A Spill Contingency Plan (SCP) shall be prepared outlining measures to prevent the release of petroleum and hazardous materials including containment methods for emergency clean-up operations. Prevention measures shall include, but not be limited to identification of appropriate fueling areas away from sensitive habitat areas such as swales and/or drainages, a maintenance schedule for equipment, and a list of appropriate containment and spill response materials to be stored on-site. All vehicles shall be staged only in appropriately marked and protected areas and at no

time shall any cleaning and/or refueling of equipment be allowed upslope and/or within the vicinity of any drainages and/or wetland habitat areas, including agricultural stock ponds. If an accidental spill of a hazardous or toxic material occurs, the Regional Water Quality Control Board (RWQCB), the California Department of Fish and Game and California Department of Toxic Substances (CDTS) shall be notified.

- The District shall submit an application for a Streambed Alteration Agreement (SAA) to the California Department of Fish and Game. If required, the final SAA shall be received prior to project construction. All conditions in the final SAA shall be strictly adhered to during construction.
- A Frac-out Contingency Plan (FCP) shall be prepared for horizontal directional drilling operations within the Santa Maria River channel and shall include appropriate measures for containment of spills, agency notifications (including a detailed call-down list of all applicable regulatory agency representatives), clean-up protocols, and procedures for restoring the river channel to pre-disturbance conditions. The “Frac-out” clean-up procedures shall emphasize minimizing and/or avoiding impacts to the main channel and alluvial scrub habitat areas of the Santa Maria River. Lastly, the FCP shall include the conditions by which the boring operation would be abandoned, if applicable, and how many repeated bores may be attempted.

**D-15:** Prior to commencing project construction, the District shall retain a biological monitor experienced with horizontal directional drilling technology. The biological monitor shall be responsible for conducting field inspections of horizontal directional drilling operations, reporting, and enforcement of all applicable conditions of approval, including any required conditions from the California Department of Fish and Game SAA. Specifically, the qualified monitor shall be on-site to inspect the river corridor and pipeline alignment during drilling activities that have the potential for a spill or “Frac-out” (i.e. pull back operations, etc.) to ensure no impacts occur to the Santa Maria River. In the event of a spill or “Frac-out” within the Santa Maria River corridor, all work shall be halted and the spill shall be contained using the procedures outlined in the FCP.

**D-16:** Spill containment equipment shall be available on-site during all construction activities. As necessary, this shall include placement of individual spill response trailers at each active work area during project operations.

The following measures address Impact D-5, short-term impacts upon sensitive habitat areas within the Santa Maria River including critical habitat of the Southern California ESU Steelhead and areas under the jurisdiction of the U.S. Army Corps of Engineers. Mitigation Measures D-10 through D-14 require provision of (pre-designated staging and fueling areas and equipment access routes, exclusionary fencing to protect sensitive habitat areas, dust control measures, etc.).

**D-17:** In the event that a “Frac-out” occurs within the Santa Maria River channel due to horizontal directional drilling operations, the appropriate permits shall be obtained

by the governing regulatory agency to facilitate clean-up and restoration of the affected portions of river channel to pre-project conditions. As necessary, this shall include a 404 Permit from the Army Corps of Engineers, a 401 Permit from the Regional Water Quality Control Board and Streambed Alteration Agreement from the California Department of Fish and Game.

**D-18:** The restoration component of the Frac-out Contingency Plan (Mitigation Measure D-14) shall be implemented as necessary to ensure that the affected portions of stream channel and associated sensitive habitat areas are restored to pre-project conditions. The restored portions of stream channel shall be monitored until all performance criteria have been met as specified by the regulatory agency permits.

Although impacts to Blochman's ragwort are considered to be less than significant, the following measures will avoid and/or minimize potential impacts to this special-status plant species during project operations:

**D-19:** Prior to project construction, a qualified botanist shall complete a focused botanical survey of the pipeline alignment along the southern boundary of the Santa Maria River. All Blochman's ragwort identified within 50 feet of the proposed horizontal directional drilling laydown area and pipeline alignment shall be marked with temporary flagging.

**D-20:** Protective fencing shall be installed around populations of Blochman's ragwort to prevent loss of this special-status plant species. As necessary, this shall include minor modifications of the designated horizontal directional drilling laydown area to avoid Blochman's ragwort to the extent feasible.

The following measure addresses Impact D-7, impacts upon large eucalyptus trees located on Southland Street, Orchard Road, South Frontage Road and Darby Lane.

**D-21:** The proposed waterline shall be aligned to avoid impacting the root systems of large eucalyptus trees located on Southland Street, Orchard Road, South Frontage Road and Darby Lane. The precise location shall be reviewed by a qualified arborist to insure avoidance of or minimize impacts to the root systems of large trees throughout pipeline alignment at these locations.

The following measure addresses Impact D-8, long-term impacts associated with the generation of silt and sedimentation.

**D-22:** Mitigation Measure D-14 includes provisions for stabilizing *soils surrounding* the water storage tank, pump station sites and pipeline alignments *affected by project construction* and monitoring. As necessary, this shall include the following:

- Implementation of standard Best Management Practices (e.g., hydroseeding, wattles, and earthen swales, etc.) along the recontoured

sites and erosion control monitoring during subsequent rainy seasons to ensure that previously disturbed areas are stabilized.

- Installation of long-term drainage devices at all water storage tank and pump stations, including, as necessary, catchment basins, culverts with down-drains and storm flow energy dissipating devices (riprap or diffusers).

The following measure addresses Impact D-9, impacts associated with long-term pipeline operations and maintenance activities.

**D-23:** All water storage tank and pump station facility lighting shall be shielded away from adjacent wildlife habitat areas and sky to minimize lighting/glare impacts of wildlife, to the extent feasible while still providing safe working conditions for facility personnel.

## **5. Cumulative Impacts**

There are several development projects under construction, approved or pending approval in the South County Inland Planning Area (see Section IV.B, Cumulative Projects). Installation of the proposed waterline intertie would provide a source of water that would eliminate a potential constraint upon the future development and population growth within the general planning area.

Direct project impacts related to installation of the pipeline alignments would be temporary and therefore would not contribute to the cumulative loss of vegetation and wildlife habitat in the project area. There would be a permanent loss of habitat related to support facilities (e.g., proposed water storage tank and pump stations); however, these facilities would be located within previously disturbed and/or existing developed areas with negligible impacts to native habitat areas. Therefore, the incremental project contribution to cumulative loss of habitat would be negligible and would not contribute to a significant cumulative impact on biological resources.

Long-term fragmentation of wildlife habitat or interruption of migratory patterns would be considered a significant impact to wildlife resources. However, since these direct project impacts due to pipeline installation activities are temporary, cumulative impacts on wildlife resources are considered less than significant.

Cumulative impacts that would result in the degradation of wetland resources, including the Santa Maria River channel due to an inadvertent “Frac-out” would be considered a significant impact. However implementation of the proposed mitigation measures that include avoidance and protection of wetland resources and restoration of affected areas to pre-project conditions would insure that the proposed project would not contribute to the long-term loss or degradation of wetland resources in the project area. Any other projects in the area that would result in impacts to wetlands would require additional environmental review and appropriate regulatory permits from the U.S. Army Corps of Engineers, Regional Water Quality Control Board and the California Department of Fish and Game. Prior to any project approval, these agencies would require provision of site specific mitigation measures designed to prevent the net loss of wetland resources



including implementation of habitat restoration and/or creation of in-kind wetland habitat areas at an appropriate mitigation ratio.

The proposed project would provide water for land development consistent with the South County Area Plan (Inland). Future development would indirectly affect biological resources by reducing the amount of vegetation and habitat available to wildlife. Impacts to threatened and endangered species and other sensitive biological resources within the project service area, including wetlands, would be adverse due to the continued conversion and degradation of habitat. Related land development would entail the cumulative loss, degradation, or fragmentation of habitats, which may result in local native plant and wildlife populations, including sensitive species, being reduced in size and made increasingly vulnerable to local extinction. Non-native species introduced through ornamental landscaping or habitat disturbances could also compete with native species or invade previously disturbed habitats, including those of special-status species.

## **6. Residual Impacts**

Mitigation Measure D-1 will reduce potentially significant impacts related to nesting activities of protected migratory birds and raptors to an insignificant level (Class II Impact). Mitigation Measures D-2 through D-9 will reduce potentially significant impacts associated with special-status terrestrial and avian species to an insignificant level (Class II Impact). Mitigation Measures D-10 through D-16 will reduce potentially significant impacts associated with special-status aquatic or semi-aquatic species to an insignificant level (Class II Impact). Mitigation Measures D-17 and D-18 will reduce potentially significant short-term impacts upon sensitive habitat areas within the Santa Maria River to an insignificant level (Class II Impact). Mitigation Measure D-21 will reduce potentially significant impacts to large eucalyptus trees located on Southland Street and Orchard Road to an insignificant level (Class II Impact). Mitigation Measure D-22 will reduce potentially significant long-term impacts associated with the generation of silt and sedimentation to an insignificant level (Class II Impact). Mitigation Measure D-23 will reduce potentially significant impacts associated with long-term pipeline operations and maintenance activities to an insignificant level (Class II Impact).

Potential impacts upon non-listed wildlife species, the Santa Maria River wildlife migration corridor or foraging bird species are considered to be less than significant (Class III Impact). Potential impacts associated with special-status plant species are also considered to be insignificant (Class III Impact), however, Mitigation Measures D-19 and 20 are provided to further reduce these impacts.