4.5 BIOLOGICAL RESOURCES

The 131-acre Dalidio project site is vegetated primarily by non-native agricultural row crops (109 acres) found in the eastern and central portion of the site and to a lesser extent by ruderal and urban landscape species in the western developed area. Native vegetation that exists on-site is found primarily in the riparian habitat along the banks of Prefumo Creek at the southwest border of the project area. Mature non-native eucalyptus trees border the developed area on the west and along Prefumo Creek. The Prado Road interchange project site is vegetated primarily by non-native grassland, ruderal species, and urban landscape species. Native vegetation exists adjacent to the interchange site, primarily along the riparian banks of San Luis Obispo Creek.

No sensitive plant species were observed on-site and would not be expected due to the history of agricultural uses, Caltrans maintenance within the Prado Road interchange area, and limited suitable habitat. Native vegetation on the Dalidio property exists in Prefumo Creek and the water and riparian vegetation provide habitat for several sensitive species with the southern steelhead recorded during high flows. Other sensitive species may potentially occur within the Prefumo Creek corridor, including the California red-legged frog, southwestern pond turtle, and two-stripe garter snake. Similar riparian habitat and sensitive species may be expected adjacent to the Prado Road interchange area within San Luis Obispo Creek. Non-native eucalyptus trees on the Dalidio property provide habitat for the Monarch butterfly and several avian species, some of which nest in the trees and are protected by the Migratory Bird Treaty Act. Nests of the great blue heron were observed on-site and vultures and raptors are also known to nest in the eucalyptus trees on-site.

The project description indicates that several eucalyptus trees would be subject to cutting or thinning for development and Madonna Road widening and to accommodate the proposed Business Park and Commercial uses. Tree removal or thinning could have adverse significant impacts on Monarch butterfly wintering sites and great blue heron, vulture and raptor nest/roost sites. Development in the vicinity of the sensitive avian species could have short and long-term significant impacts related to increased light, noise, and human and domestic animal intrusion. Any action that would cause a Migratory Bird Treaty Act (MBTA)-protected bird to flee the nest or abandon reproductive effort would be considered a significant impact. Measures are available to reduce impacts to sensitive avian species and Monarch butterfly habitat. These measures include setbacks, buffers, shielding for lights, and limits on timing for construction and disturbance in the area.

Sensitive species occurring in the Prefumo and San Luis Obispo Creek corridors could experience impacts from similar project related actions such as construction practices that could cause siltation and changes to water quality. Sensitive species in Prefumo and San Luis Obispo Creeks could also experience impacts due to development of a road within or adjacent to these areas, and intrusion associated with increased human activity. Mitigation measures stated below to protect wetlands would also protect the species within them and impacts to sensitive aquatic species would be reduced to less than significant.

Wetland habitat on-site in Prefumo Creek and San Luis Obispo Creeks are under the jurisdiction of federal, state and local agencies. Construction practices, the development of the Los Osos Valley collector road across Prefumo Creek, widening of the Prado Road bridge over San Luis Obispo Creek, and increased human use on-site could have short and long-term significant impacts to wetlands. Impacts include siltation and run-off to the creek affecting water quality and, cut and fill within Prefumo Creek and removal of vegetation for the road, and auxiliary lane for U.S. Highway 101(depending on final project plans). The dedication of approximately 7 acres of permanent Open Space along Prefumo Creek would

help to reduce adverse impacts to wetlands. Mitigation measures can reduce significant impacts to a level of less than significant.

4.5.1 Setting

This discussion is based on field reconnaissance, historical aerial photography of the project site, and a literature review concerning biological resources known to occur in the area.

Dalidio Property. The field reconnaissance in this area concentrated on Prefumo Creek, those areas proposed for alteration, and the fringes of the agricultural fields. Approximately 109 acres of the 131-acre project site is dedicated to irrigated row crops in the eastern and central portion. The western portion of the project site, along Madonna Road, includes agricultural buildings, farm equipment storage, and farm support housing. Prefumo Creek flows along the western border of the project site. The area on the west is separated from crop production by a soil substrate drainage channel that flows west into Prefumo Creek. Mature stands of eucalyptus trees border the developed area on the west and Prefumo Creek. In addition to eucalyptus trees, Prefumo Creek also contains riparian vegetation. Laguna Lake, to the northwest of the project site, flows into Prefumo Creek via a concrete channel under Madonna Road. Prefumo Creek flows south off-site and eventually under U.S. Highway 101 to its confluence with San Luis Obispo Creek approximately ¾ of a mile downstream from the project site.

Prado Road Interchange. A field reconnaissance was conducted on February 22, 2000 that focused on the area within the Caltrans right-of-way for U.S. Highway 101, and outside the Caltrans right-of-way where the proposed access ramps are located adjacent to Prado Road. Emphasis was also placed on identifying the existing conditions within the San Luis Obispo Creek corridor and any potential impacts to the creek associated with the development of the proposed auxiliary lane. San Luis Obispo Creek in this area is primarily a natural channel, with fairly healthy riparian vegetation. Some rip-rap is present on the banks at various locations in this reach of the creek. Water was flowing in this drainage during the February field visit.

A small drainage swale located within the Caltrans right-of-way in the southern section of the proposed interchange area collects surface water and delivers it to a drain near the Prado Road intersection. This drainage is dominated by ruderal vegetation. Approximately four inches of standing water was observed in this drain during the February field visit.

a. Vegetation.

Dalidio Property. Native vegetation within the project site is primarily associated with Prefumo Creek and consists of marsh and riparian vegetation (Figure 4.5-1). The remainder of this area consists of man-made communities (Holland and Keil 1990) that are dominated by introduced plants and established or maintained by human disturbance. The majority of the site has historically been in agricultural production. Vegetation in the farm fields consists of agricultural crops with occasional ruderal (weedy) vegetation between rows and along the borders. The developed portions of the site have been landscaped with horticultural species

LEGEND

- **C-R-PD** RETAIL/COMMERCIAL/PLANNED DEVELOPMENT
- **O-BP** OFFICE/BUSINESS PARK
- **C/OS** CONSERVATION/OPEN SPACE
- FRESHWATER MARSH
- DRAINAGE CHANNEL
- EUCALYPTUS PLANTATION
- AGRICULTURE / ROW CROPS
- RIPARIAN - EUCALYPTUS DOMINATED
- RIPARIAN - SOUTH COAST ARROYO WILLOW RIPARIAN FOREST
- RUDERAL
- URBAN MIX

Source: Cannon Associates, March 3, 2003,
Dalidio annexation Development Plan, March 1999

Dalidio Property Vegetation Map

Figure 4.5-1

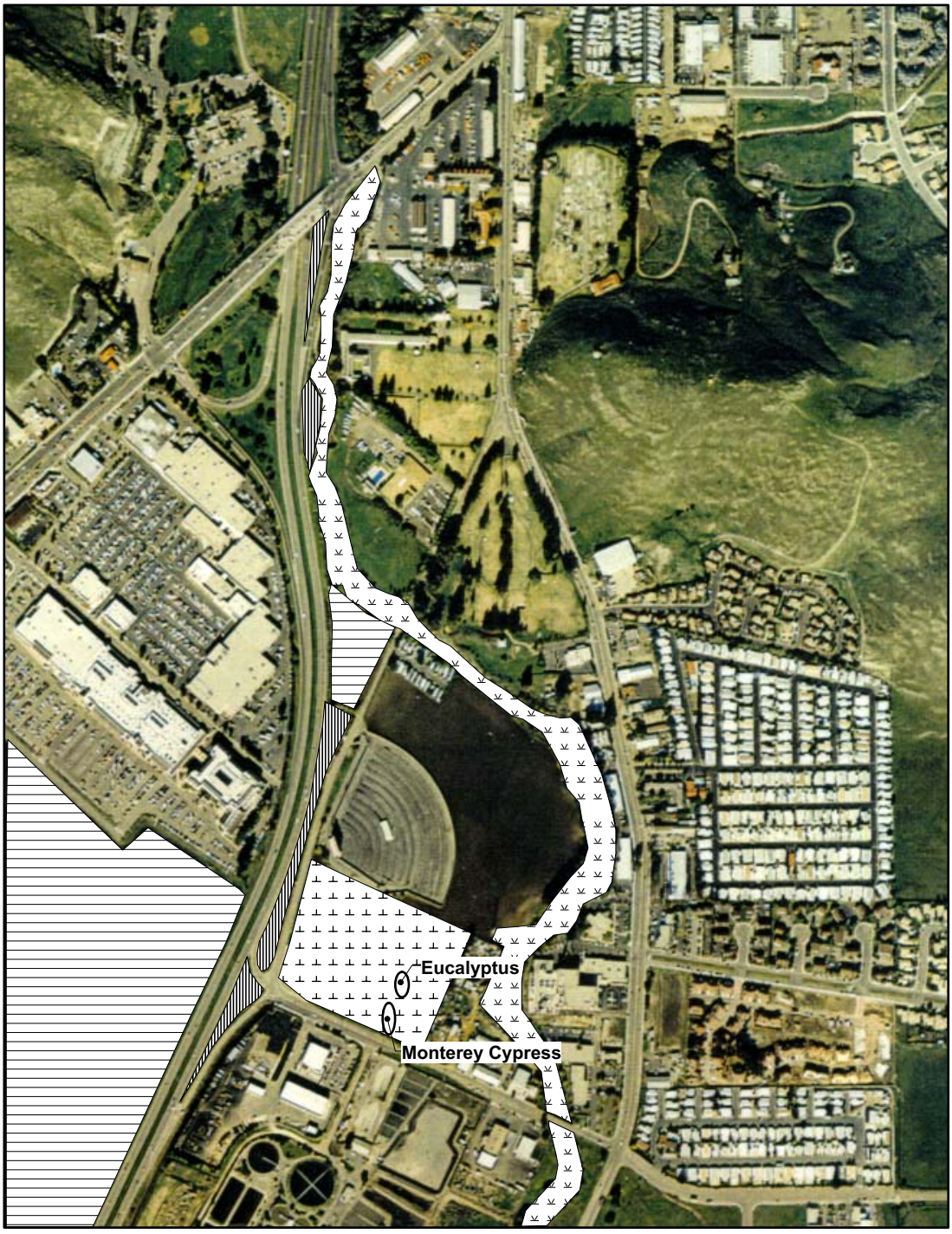
around the houses. Land around the farm buildings and equipment consists of non-native annual grasses and ruderal species. Mature eucalyptus trees are the predominant vegetation in the western portion of the project site. The drainage channel separating the farm buildings and crops contains vegetation typically observed in disturbed moist areas: annual grasses, ruderal species, and wetland vegetation.

Prado Road Interchange. Similar to the project site, the interchange site has primarily man-made communities (Figure 4.5-2). The limited native vegetation within the Caltrans right-of-way is associated with the riparian banks of the adjacent San Luis Obispo Creek. The creek contains both freshwater marsh and riparian vegetation.

The following describes the vegetation communities present within the Dalidio project area. The description of natural communities follows Holland (October 1986) and includes Central Coast Arroyo Willow Riparian Forest and Coastal and Valley Freshwater Marsh. The descriptions of man-made communities follow Holland and Keil (1990) and include Agrestral, Ruderal, Plantation, and Urban Mix.

Central Coast Arroyo Willow Riparian Forest. The banks of Prefumo Creek downstream of its confluence with the on-site drainage channel are covered with this vegetation type, which is dominated by arroyo willow (*Salix lasiolepis*) and to a lesser extent red willow (*S. laevigata*). The overstory also contains scattered native sycamore (*Platanus racemosa*) and cottonwood (*Populus fremontii*) trees. The shrub layer also contains scattered mulefat (*Baccharis salicifoia*), poison oak (*Toxicodendron diversilobum*), and toyon (*Heteromeles arbutifolia*). Non-native annual grasses including wild oats, foxtail chess, and fescue dominate the understory and banks adjacent to the creek. Forbs in the understory include curly dock (*Rumex crispus*) and, in the lower reaches on-site, cinquefoil (*Potentilla anserina*) and horsetail (*Equisetum* sp.). Arroyo willow thickets range from moderately open to very dense on the upper banks. The southern bank is adjacent to existing residential uses and the riparian area and creek are invaded by urban horticultural plant species, such as calla lily (*Zantedeschia aethiopa*). The on-site community meets the description of the arroyo willow vegetation type (California Natural Community Element Code 61230) as proposed by Holland (1986). The project site contains approximately 4.3 acres of arroyo willow dominated riparian forest. From the vicinity of the drainage channel and upstream, non-native eucalyptus trees dominate the upper bank of Prefumo Creek.

San Luis Obispo Creek adjacent to the proposed Prado Road interchange area is also dominated by Central Coast Arroyo Willow Riparian Forest and contains willow thickets that vary from moderately open to very dense. The shrub layer within this area is similar to Prefumo Creek and is dominated by arroyo willow, California blackberry (*Rubus urisinus*), coyote brush (*Baccharis pilularis*), poison oak, nutsedge (*Cyperus eragrostis*), and German ivy (*Senecio mikanioides*). This drainage also contains scattered native sycamore trees in the overstory with one mature sycamore located immediately adjacent to the Caltrans right-of-way, just south of Madonna Road. The understory of San Luis Obispo Creek contains similar non-native vegetation to Prefumo Creek with the addition of greater periwinkle (*Vinca major*) and castor bean (*Ricinus communis*). Non-native tree tobacco (*Nicotiana glauca*), exotic pines and eucalyptus trees are sporadically located in the upper bank of this creek.



Prado Road Interchange Area Vegetation Map Figure 4.5-2

Native Central Coast Arroyo Willow Riparian Forest is a declining community that has been largely converted to urban uses throughout central and southern California. This habitat type is recognized by the California Natural Diversity Database (CNDDB) as a sensitive habitat. Also, the national inventory of wetland plants (Reed 1988) lists arroyo willow as a facultative wetland (FACW) species. The past losses of riparian habitat have resulted in a decline in the population of certain plant and wildlife species that are uniquely associated with this habitat type.

Coastal and Valley Freshwater Marsh. This community describes the vegetation in flooded and flowing portions of Prefumo and San Luis Obispo Creek and is dominated by the perennial emergents, cattail (*Typha* sp.) and bulrush (*Scirpus acutus* var. *occidentalis*). Other dominants are water smartweed (*Polygonum amphibium* var. *emersum*) and curly dock (*Rumex crispus*). The on-site community meets the description of this vegetation type (California Natural Community Element Code 52410) as proposed by Holland (1986). This habitat type is recognized by the CNDDB as a sensitive habitat. Also, the national list of wetland plants (Reed 1988) lists cattail and bulrush as obligate (OBL) wetland species. The Dalidio property contains 0.1 acres of marsh habitat. Acreage values were not calculated for San Luis Obispo Creek since freshwater marsh is not expected to be directly impacted as part of the proposed Prado Road interchange.

Agrestral and Ruderal Vegetation. Agrestral communities form in areas that have been disturbed by cultivation and this vegetation type describes the weedy vegetation that is currently scattered at the edges and between row crops in the 109 acres of agricultural fields within the Dalidio property. Ruderal communities are assemblages of plants that thrive in waste areas, roadsides and similar disturbed sites such as the disturbed areas in the western portion of the Dalidio property, Prado Road interchange area, and around otherwise disturbed areas within the project area. These two vegetation types share many common annual and perennial species and are therefore listed together here.

Non-native herbs and grasses are the predominant vegetation, with mustard, filaree, prickly lettuce, telegraph weed, wild oats, foxtail chess, ripgut grass, fennel, and various brome grasses being common. No California Natural Community Element Code is associated with this vegetation type, which occupies roughly 10 acres of the Dalidio Property and the majority of the Prado Road interchange area. A very small amount of native California sagebrush (A*rtemesia californica)* is located within the Caltrans right-of-way at the northern end of the Prado Road interchange area.

A drainage channel separates the western portion of the Dalidio property from the active farming. It is included in this section because of the amount of ruderal species along the channel. Water in this soil substrate channel flows to Prefumo Creek, although no water was present at the time of the site visit in May 1999. In the area adjacent to the post office, the vegetation in the channel is dominated by Harding grass (*Phalaris aquatica*). Other species in the channel include a mix of ruderal vegetation as discussed below, teasel, and *Lolium* sp. As the drainage flows beneath the eucalyptus trees, the channel widens and vegetation becomes sparse. Exotic vinca occurs in this area along with ruderal species. A few native species occur here and at other areas along the banks such as blackberry (*Rubus ursinus*), coyote brush, and a single ceonothus. The national list of wetland plants (Reed 1988) lists Harding grass as a facultative + (FAC+) wetland species. The drainage channel covers approximately 1-acre on-site.

The drainage swale within the Caltrans right-of-way also contains ruderal vegetation and is dominated by poison hemlock (*Conium maculatum*), *Myoporum*, milk thistle (*Silybum marianum*), storksbill (*Erodium sp.*), Harding grass, curly dock (*Rumex cripus*) and has scattered pepper and eucalyptus trees in the overstory. Limited native blackberry was also found in this area.

Plantation. This designation refers to several planted tree rows/groves within the Dalidio property that border the developed area on the west, the drainage channel, and Prefumo Creek. Mature stands of blue gum eucalyptus trees (*Eucalyptus globulus*), approximately 70 to 100 feet tall, dominate this habitat, although cypress trees are included among the eucalyptus. The understory of these tree rows varies from disturbed ruderal vegetation and non-native grasses to riparian vegetation for those trees adjacent to Prefumo Creek. No California Natural Community Element Code is associated with this vegetation type, which occupies approximately 7.3 acres of the site.

Urban Landscaping. This designation applies to the landscaping of the residences in the western portion of the Dalidio property, totaling approximately 0.1 acres. The Dalidio property has a limited area surrounding the houses that contains horticulture shrubs, perennials, annuals and grasses. Urban landscaping also exists sporadically within the proposed Prado Road interchange area, most noticeably along the Caltrans right-of-way.

b. Fish and Wildlife Habitats. The vegetation and aquatic habitats of the project site provide habitat for a variety of common native and nonnative vertebrate species. While some species are entirely dependent on a particular vegetation type or habitat, most of the larger vertebrate species occur throughout the habitats present. Discussed below are the common vertebrate species noted or expected within the habitats present at the site. Sensitive species are discussed in Section 4.5.1(d) below.

Riparian and Marsh. Riparian corridors support a diverse assemblage of wildlife species. Tree, shrub, and understory layers of riparian vegetation provide nesting and foraging sites for a variety of species. Prefumo and San Luis Obispo Creeks are a permanent source of water for wildlife species. San Luis Obispo Creek is adjacent and outside of the Caltrans right-of-way, but a limited portion of its associated riparian habitat exists within the right-of-way. Riparian vegetation provides cover and serves as a wildlife corridor. Aquatic insects were observed in the waters of Prefumo Creek along with well-developed patches of algae. Aquatic insects and algae are sources of food for several aquatic species.

Fish. Natural fish habitat exists within the project site in the waters of Prefumo and San Luis Obispo Creeks. Introduced mosquito fish (*Gambusia* sp.) were observed in the downstream reach of the Dalidio property at the proposed creek crossing to Los Osos Road. Laguna Lake flows into Prefumo Creek and fish found in the lake may also occasionally be found in Prefumo and San Luis Obispo Creeks. The common fish found in Laguna Lake and potentially within these creeks include: bluegill, largemouth bass, black crappie, brown bullhead, brook trout, green sunfish, golden shiner, and mottled sculpin (Envicom Corporation, 1980). Other known introduced species that occur within San Luis Obispo Creek and potentially Prefumo Creek include mosquito fish, goldfish, carp, and fathead minnows.
There are four common native species that may potentially reside adjacent to the proposed Prado Road interchange in San Luis Obispo Creek. These include: Prickly Sculpin, Threespine

Stickleback, Speckled Dace, and Pacific Lamprey (Tamagni, 1995). In addition, steelhead trout are known to occur in San Luis Obispo Creek, as discussed further in following sections.

Amphibians. In riparian habitat, Pacific treefrog (*Hyla regilla*) tadpoles were observed in shallow pools within Prefumo Creek during the May 1999 field visit, and were heard in San Luis Obispo Creek during the February 2000 field visit. The native western toad (*Bufo boreas*) would also be expected. The non-native bullfrog (*Rana catesbeianna*) is known to be in the adjacent Laguna Lake (Envicom Corporation, 1980) and is also likely present on-site although bullfrogs were not observed or heard vocalizing during the May 1999 or February 2000 site visit. The drainage channel on the Dalidio property located between existing residential and agricultural uses may also provide habitat for the western toad and Pacific treefrog when water is present. No water was observed in the on-site drainage channel during the May 1999 site visit.

Reptiles. Reptilian diversity at the site varies with the nature of the vegetation present and the availability of open areas suitable for sunning. The disturbed habitat on-site includes coverage with grasses, forbs, and row crops in addition to native riparian habitat. The site also includes open bare areas suitable for sunning such as roads, bare soil, rocks, fallen logs, and scattered debris. Common reptile species expected on-site in virtually every habitat include western fence lizard, southern alligator lizard, common kingsnake, and gopher snake.

Birds. Natural and agrestral habitats on-site provide foraging, nesting, and roosting sites for a variety of birds. The proximity of the site to Laguna Lake increases the number of bird species known and potentially utilizing the project site.

Dabbling ducks prefer marshy areas with vegetative cover such as smartweed. Prefumo and San Luis Obispo Creeks provide marsh habitat and smartweed exists on-site within Prefumo Creek. Dabbler species that prefer to be surrounded by smartweed and found at Laguna Lake Park include shovelers, cinnamon teals, wild mallards, green winged teal, American widgeon, pintail, ring-necked duck, and American coot (Envicom Corporation, 1980). Mallards were observed on-site within Prefumo Creek and it is expected that the other dabblers listed use Prefumo and San Luis Obispo Creeks. Other species observed flying overhead and most probably associated with Laguna Lake include the brown pelican and gull species.

Of particular interest for avian species are the eucalyptus trees within the Dalidio property. The City of San Luis Obispo Conservation Element (July 1973) states that the eucalyptus grove on-site "provides nesting sites for a number of interesting and valuable species such as the great blue heron, red-shouldered hawk, barn owl, and winter roosting for thousands of more common birds." Protected species, such as the great blue heron, are covered in a following section on sensitive species.

Red-tailed and red-shouldered hawks were seen foraging over the Dalidio property during site surveys, and may breed in the more isolated eucalyptus trees. Turkey vulture and common crow were also seen flying over the site. Stellar jays were observed in the understory of the eucalyptus trees.

An American kestrel was observed on-site in the area near the barn. House finch, bush tit, American goldfinch, chestnut-backed chickadee, American crow, mocking bird, spotted dove,

and mourning dove were found in the ruderal vegetation and urban landscaping. Cliff, barn, and rough-winged swallow would potentially forage over grasslands and nest under bridges and house eaves. Black phoebes were observed in the creek areas. Song sparrows were found in ruderal vegetation near the drainage. The non-native European starling, house sparrow, and cowbird tend to benefit the most from urban uses. These three species were observed in the farm building area. A belted kingfisher was also observed within San Luis Obispo Creek. Numerous other birds are expected to be found in the habitats on-site either as residents or winter migrants.

Mammals. The project site provides suitable habitat for a variety of small and large mammals. Raccoon and muskrat would be expected within the creek and riparian habitat. Both of these species have been recorded at Laguna Lake (Envicom Corporation, 1980), but were not observed during the May 1999 or February 2000 site visits.

The California ground squirrel is found throughout the disturbed portions of the site in the ruderal vegetation and also in the upper banks of the riparian habitat. This mammal attracts several predators, including red-tailed hawks and bobcat. Western harvest mouse and deer mouse holes and runs and some Botta's gopher holes were also noted in the ruderal vegetation and grasslands. Cottontail rabbits may be expected in ruderal vegetation and grasslands of the site although habitat for cover and nesting is not plentiful. Other common mammal species expected on-site include rat, shrew, opossum, and striped skunk. Mule deer have been observed on the Dalidio property (Eabry, 1999).

The small mammals present within the ruderal vegetation and riparian habitat form an important prey base to several predators that forage over an extensive area. Besides the presence of hawks, coyote may be active predators on the site and to a lesser extent bobcat. Domestic cats and dogs from adjacent residential uses are probably also predators on-site. Several feral cats were observed within the vicinity of San Luis Obispo Creek during the February 2000 field visit. A common bat species that may be expected at the site is the California myotis.

c. Regulatory Setting. Federal, state, and local authorities under a variety of legislative acts share regulatory authority over biological resources. The primary authority for general biological resources lies within the land use control and planning authority of local jurisdictions, in this instance, the City of San Luis Obispo. CEQA provides a mechanism through which biological resources must be considered in the decision-making process regarding land use by the local authority. The California Department of Fish and Game (CDFG) is both a trustee and responsible agency for biological resources throughout the state under CEQA and also has direct jurisdiction under law through the state Fish and Game Code. The state and federal Endangered Species acts also provide direct regulatory authority over specially designated organisms and their habitats to Fish and Game and the U.S. Fish and Wildlife Service (USFWS). The U.S. Department of the Army, Corps of Engineers (USACE) also has regulatory authority over specific biological resources, namely wetlands and waters of the United States, under Section 404 of the federal Clean Water Act.

In response to their legislative mandates, regulatory authorities have designated sensitive biological resources to include those specific organisms that have regionally declining populations such that they may become extinct if population trends continue. Habitats are also

considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance.

d. Sensitive Biological Resources. A "sensitive biological resource" refers to any rare, threatened or endangered plant or animal species, or those species considered regionally declining by local authorities. Habitats are also considered sensitive if they exhibit a limited distribution, have high wildlife value, contain sensitive species, or are particularly susceptible to disturbance. Sensitive species are classified in a variety of ways, both formally (e.g. State or Federal Threatened and Endangered Species) and informally ("Special Animals"). Species may be formally listed and protected as Threatened or Endangered by the CDFG or USFWS or as California Fully Protected (CFP). Informal listings by agencies include California Species of Special Concern (CSC) (a broad database category applied to species, roost sites, or nest sites); or as USFWS Candidate taxa. CDFG and local governmental agencies may also recognize special listings developed by focal groups (i.e. Audubon Society Blue List; California Native Plant Society (CNPS) Rare and Endangered Plants; U.S. Forest Service regional lists). Species are also protected through special acts of federal or state governments such as the federal Migratory Bird Treaty Act of 1918 (MBTA). Enforcement of the MBTA is implemented by the USFWS.

This section lists those rare or otherwise sensitive species that were found on the site or that have the potential to occur in the project vicinity. The potential for occurrence of sensitive resources is based on-site characteristics and the known regional distribution and habitat affinities of the species. Lists of sensitive plant and animals as published by the California Department of Fish and Game (April 1999) and the United States Fish and Wildlife Service (1995 and 1999) were used in the preparation of this section. In addition, a database report for the San Luis Obispo Quadrangle from the California Natural Diversity Data Base (May 1999) was used to identify sensitive species and communities in the area.

The majority of the project site has been disturbed by human uses, although the riparian corridor provides habitat for native species. No sensitive plant species were observed during the May 1999, February 2000, or August 2003 site visits. No sensitive plant species are known to exist on the Dalidio property, although certain agricultural practices provide habitat for the CNPS listed Congdon's tarplant (Havlik, 1999). Due to routine Caltrans maintenance activities in the right-of-way along U.S. Highway 101, no listed species are known or expected to occur within the Prado Road Interchange area. Table 4.5-1 lists those sensitive plant species known to occur in the project vicinity and may possibly occur within the project area.

Obispo manzanita. This shrub occurs in central coast conifer forests and serpentine soils. This species was not observed on-site nor is it expected due to the lack of habitat.

Club-haired Mariposa lily. This herbaceous bulb occurs in chaparral, cismontane woodland, and valley and foothill grassland and is often found on serpentine soils from Los Angeles to San Luis Obispo. The lily could occur within ruderal grassland on-site but this species was not observed during any of the site visits, which were not during its blooming period (June). However, the site is disked for agricultural uses on a regular basis and it is unlikely that the bulbs would have survived the long-term agricultural use of the site.

San Luis Mariposa lily. This herbaceous bulb occurs in chaparral, coastal scrub and valley and foothill grassland and is often found on serpentine soils. The lily could occur within ruderal grassland in the project area but this species was not observed during the May 1999 or February 2000 site visits when it would have been in bloom (May – July) and most obvious. Additionally, as a bulb, it is unlikely that the plant would have survived agricultural disking on-site.

Table 4.5-1 Sensitive Plant Species in the Project Vicinity

Common Name	Scientific Name	Agency Status	Occurrence
Obispo manzanita	*Arctostaphylos obispoensis*	CNPS 4	Not expected on-site due to lack of habitat
Club-haired Mariposa lily	*Calochortus clavatus* var. *clavatus*	CNPS 4	Low potential
San Luis Mariposa lily	*Calochortus obispoensis*	CNPS 1B	Low potential, known 0.75 mile northeast and southwest of the site
Cambria morning glory	*Calystegia subacaulis ssp. episcopalis*	FSC, CNPS 1B	Low potential
San Luis Obispo sedge	*Carex obispoensis*	CNPS 1B	Low potential, known 1.5 mile west of the site
Brewer's spineflower	*Chorizanthe breweri*	CNPS 1B	Low potential, known 0.5 mile north of the site
Chorro Creek bog thistle	*Cirsium fontinale* var. *obispoensis*	SE, FE, CNPS 1B	Low potential, known < 0.5 mile southwest of site
Congdon's tarplant	*Centromadia parryi* ssp. *congdonii*	FSC, CNPS 1B	Potential to occur on-site, known 0.5 mile northwest and west of the site
Jones's layia	*Layia jonesii*	FSC, CNPS 1B	Potential to occur on-site, known 0.5 mile northwest
Small-leafed lomatium	*Lomatium parvifolium*	CNPS 4	Not expected on-site due to lack of habitat
Hoffman's sanicle	*Sanicula hoffmannii*	CNPS 4	Not expected on-site due to lack of habitat
Adobe sanicle	*Sanicula maritima*	FSC, CNPS 1B	Potential to occur on-site, known 0.5 mile northwest
Rayless ragwort	*Senecio aphanactis*	CNPS 2	Possible, known about 0.5 mile northeast of site

Source: Rincon Consultants, Inc.; CDFG, California Natural Diversity Database, January 2003; Cea Environmental Consultants, September 1996

FE = Federal Endangered
FSC = Federal Species of Concern
SE = California Endangered
CNPS 1B = "rare, threatened, or endangered" by the California Native Plant Society
CNPS 2 = rare or endangered in California, more common elsewhere by the California Native Plant Society
CNPS 4 = plant of limited distribution by the California Native Plant Society

Cambria morning glory. This perennial herb occurs in chaparral and cismontane woodland of San Luis Obispo. The morning glory was searched for after its blooming period (April) and flowers or vegetation were not observed on-site during the May 1999 or February 2000 site visit. Suitable habitat exists on the banks of Prefumo and San Luis Obispo Creeks in the riparian woodland.

San Luis Obispo sedge. This herb grows in springs and streamsides and is known especially to serpentine soils. Potential habitat exists within Prefumo and San Luis Obispo

Creeks and their banks but serpentine soils are not known to occur in the project area. The area was surveyed during the May 1999 and February 2000 site visits but this sedge was not observed and is not expected due to the lack of serpentine soil.

Brewer's spineflower. This annual herb is found in chaparral or foothill woodland habitats and on serpentine soil. CNDDB records this plant at the Laguna Lake Park. The spineflower was searched for during its blooming period (May – June) but not observed on-site during the May 1999 or February 2000 site visits and is not expected due to the lack of serpentine soil.

Chorro Creek bog thistle. This thistle is known to occur less than 0.5 mile to the southwest of the project site. This species occurs in chaparral and cismontane woodland and especially in serpentine seeps of the San Luis Obispo area. The moist riparian woodland of Prefumo and San Luis Obispo Creeks would be potential habitat but these creeks do not have serpentine soils. The thistle was searched for during its blooming period (February - July) but not observed on-site during the May 1999 or February 2000 site visits and is not expected due to the lack of serpentine soil.

Congdon's tarplant. According to CNDDB, this annual aster is known to the vicinity and has the potential to occur on-site. This plant occurs in valley and foothill grassland and blooms from June to November. This aster was searched for on-site, especially in borders of row crops and ruderal grasses during the May 1999 and February 2000 site visits but was not observed. This species is known to have occurred on fallow fields of the DeVaul property approximately 0.5 miles to the west.

Jones's layia. This annual aster occurs on clay or serpentine soils in chaparral or valley and foothill grassland. The aster was searched for during its blooming period (March - May) but not observed on-site during the May 1999 or February 2000 site visits. Soils on-site are known to contain clay and suitable habitat exists on-site in ruderal grassland.

Small-leafed lomatium. This perennial herb occurs in chaparral and closed-cone conifer forests especially on serpentine soils. The lomatium was not observed during the May 1999 or February 2000 site visits and is not expected on-site due to the lack of habitat.

Hoffman's sanicle. This perennial herb occurs in chaparral and coastal scrub especially on serpentine soils. The sanicle was not observed during the May 1999 or February 2000 site visits and is not expected on-site due to the lack of habitat.

Adobe sanicle. According to CNDDB, this perennial herb is known to the vicinity and has the potential to occur on-site. This plant occurs on shrubby coastal hills, pine woodlands, and clay/serpentine soils. This species was surveyed for during its bloom period (April – May) but was not observed during the May 1999 or February 2000 site visits. As clay soils exist on-site, there may be potentially suitable soils but not the vegetation type that this species is normally associated with.

Rayless ragwort. This annual is found in coastal scrub and cismontane woodland. This aster was not observed in the riparian woodland or at any other location on-site during the May 1999 or February 2000 site visits.

The City of San Luis Obispo Tree Regulations found in Chapter 12.24 of the Municipal Code (1997) protects trees. The City defines a tree as any perennial woody plant having a trunk at least three inches in diameter at 4.5 feet above the soil. As discussed above, several trees are located in the western and riparian areas of the Dalidio property and would be subject to the City's Tree Regulations. In addition, the Prado Road interchange area contains various sycamore, pine, eucalyptus, and pepper trees that are subject to these regulations.
Sensitive vertebrate species of concern known or possibly found at the site or local vicinity are listed in Table 4.5-2. State or federally listed species are accorded the highest protection status. The following further discusses the potential for species listed in Table 4.5-2 to occur in the habitats present at the site.

The USFWS or CDFG does not list the **Monarch butterfly** but it is listed by the CNDDB as a species with a G5S3 ranking for wintering sites. This translates to a state rank of a California restricted range and rare for wintering sites for this species. The City of San Luis Obispo, Open Space Element (1994) lists *Plants and Animals as Classified by the City of San Luis Obispo* for the purpose of protecting sensitive habitat and unique resources. Under Plants and Animals, Table II, Sensitive Habitat (4), a species is included if it can be shown to meet the criteria in CEQA Section 15380. Monarch butterfly (wintering sites) meets the definition of "rare" according to State CEQA Guidelines Section 15380 and is therefore included in this EIR for analysis.

Monarch butterflies congregate in clusters in eucalyptus trees during fall and winter migration. It is during the winter roosting and clustering period that the sensitive habitat is protected. The CNDDB map for the San Luis Obispo quadrangle (June 2003) indicates roosting habitat at the eucalyptus stand within the Dalidio property. Monarchs have been observed at the Dalidio property (Havlik, 1999), including roosting (Eabry, 1999). The eucalyptus trees within the Prado Road interchange area do not consist of a large enough stand to provide viable habitat for monarchs.

Prefumo Creek is a known migration corridor for the federally threatened **steelhead (**south/central coast ESU), which is also listed with the State of California as a California Species of Concern. No steelhead spawning occurs on-site within Prefumo Creek because of the lack of spawning gravel (City of San Luis Obispo, 1998). However, occasionally steelhead can be found in this creek during heavy winter flows (City of San Luis Obispo, 1998).

San Luis Obispo Creek is one of the southernmost points of the steelhead trout's range and is a known migration corridor and spawning area. The spawning grounds for steelhead trout are in the upper reaches of the watershed and See Canyon Creek. These areas include upper Stenner Creek, upper Brizziolari Creek, upper San Luis Obispo Creek, and Reservoir Canyon Creek below the falls to its confluence with San Luis Obispo Creek. Rearing habitat includes most of the area downstream through the City of San Luis Obispo up to the point where the effluent from the wastewater treatment plant enters the creek. The area below the treatment plant may be good rearing grounds (Tamagni, 1995).

Table 4.5-2. Sensitive Animals in the Project Vicinity

Common Name	Scientific Name	Agency Status
Insecta		
Monarch butterfly	*Danaus plexippus*	*CNDDB G5S3 (wintering sites)*
Fish		
Steelhead – South Central Coast ESU	*Oncorhynchus mykiss*	*FT, CSC*
Amphibians		
California tiger salamander	*Ambystoma californiense*	*FC, FE/FPT*, CSC*
California red-legged frog	*Rana aurora draytonii*	*FT, CSC*
Western spadefoot toad	*Scaphiopus hammondi*	FSC, CSC
Reptiles		
Southwestern pond turtle	*Clemmys marmorata pallida*	FSC, CSC
Coast horned lizard	*Phrynosoma coronatum frontale*.	FSC, CSC
Two-striped garter snake	*Thamnophis hammondii*	CSC
Birds		
Cooper's hawk	*Accipiter cooperi*	CSC (nesting), MBTA
Sharp-shinned hawk	*Accipiter striatus*	CSC (nesting), MBTA
Ferruginous hawk	*Buteo regalis*	FSC, CSC (winter), MBTA
Tri-colored blackbird	*Agelaius tricolor*	FSC, CSC (nesting colony), MBTA
Burrowing owl	*Athene cunicularia*	FSC, CSC (burrowing site), MBTA
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	SE (nesting), MBTA
Prairie falcon	*Falco mexicanus*	CSC (breeding sites), MBTA
Great blue heron	*Ardea herodias*	MBTA, CSC, MBTA
White-tailed kite	*Elanus leucurus*	FSC, CFP, MBTA
Loggerhead shrike	*Lanius ludovicianus*	FSC, CSC, MBTA
Mammals		
Pallid bat	*Antrozous pallidus*	CSC
Monterey dusky-footed woodrat	*Neotoma fuscipes luciana*	CSC

Source: Rincon Consultants, Inc.; CDFG, California Natural Diversity Database, January 2003; USFWS 1995.

CE = California Endangered
CFP = California Fully Protected
CNDDB G5 S3 = California Natural Diversity Data Base, Global rank: demonstrably secure, common; State rank: California restricted range, rare.
CSC = California Species of Concern;
FC = Federal Candidate
FE = Federal Endangered
FE/FPT = Federal Endangered status currently applies to the Distinct Vertebrate Populations in Santa Barbara and Sonoma Counties. On May 23, 2003, the USFWS proposed to designate the Central California Distinct Population Segment as Threatened, and to Reclassify the Sonoma County and Santa Barbara County Distinct Populations from Endangered to Threatened. Final Rule is pending.*
FPE = Federal Proposed Endangered
FSC = Federal Species of Concern
FT = Federal Threatened
MBTA = Migratory Bird Treaty Act

The steelhead trout is an anadromous (ocean-run) form of the rainbow trout. Except for the large size of steelhead at spawning, the two can be hard to distinguish from one another. Steelhead trout have extremely well developed homing abilities. They usually will spawn in

the same stream and area where they lived as fry. However, steelhead are opportunistic spawners and will spawn in other areas of a stream if their particular tributary or reach is unreachable due to new dams, other barriers or pollution. Unlike many salmon species that spawn and die soon after, the steelhead trout may spawn several years in a row and may even skip a year. When in fresh water, the steelhead trout prefer a fast flowing, highly oxygenated, clear, cool stream where riffles tend to predominate pools. They can occupy a very wide range of water temperatures but optimum temperatures range from 13-21 degrees Celsius. Being able to adapt to differing water temperatures has enabled the steelhead trout to survive in the highly variable San Luis Obispo Creek watershed (Tamagni, 1995).

California tiger salamander and **western spadefoot toad** occupy grassland areas that contain shallow, temporary pools that form after winter rains. These pools are critical for the breeding success of this species (Zeiner, et al, 1988). The project site lacks such vernal pools and suitable habitat for this species is generally lacking. Both species are federal and state species of concern, although the Distinct Vertebrate Populations in Santa Barbara and Sonoma Counties are listed as endangered by the U.S. Fish and Wildlife Service. On May 23, 2003, the USFWS proposed to designate the Central California Distinct Population Segment as Threatened, and to reclassify the Sonoma County and Santa Barbara County Distinct Populations from Endangered to Threatened. Final Rule is pending.

The federally threatened **California red-legged frog** was not observed during any of Rincon's site visits. Suitable habitat exists on-site in Prefumo Creek and within San Luis Obispo Creek adjacent to the Prado Road interchange area, and the species has been recorded at Laguna Lake (Envicom Corporation, 1980). Specific surveys according to USFWS protocol are required to determine the presence/absence of this species on-site or in adjacent habitats. Informal consultation regarding the project has been initiated with the USFWS. A reconnaissance of CRLF habitat was performed on-site and the surrounding vicinity and this information has been forwarded to the USFWS to determine whether focused surveys are required for this project. Red-legged frog habitat includes pools with *Typha* and *Scirpus* for egg attachment to overhanging vegetation and suitable pools as habitat for juveniles and adult frogs. Creeks and ponds where California red-legged frogs are found often have dense growths of woody riparian vegetation, especially willows, such as those found on-site (USFWS, 1997). Sufficient habitat appears to exist on-site within Prefumo Creek and adjacent to the Prado Road interchange area within San Luis Obispo Creek, although portions are degraded by trash in the creek and encroaching agricultural and urban disturbances. Algae, sources of food for red-legged frog larvae, and aquatic insects, tadpoles, frogs, and mice, sources of food for juvenile and adults frogs, are present on-site.

The **southwestern pond turtle** is a California species of concern. No pond turtles were observed within Prefumo Creek during Rincon's site visits or within San Luis Obispo Creek during the February 2000 field visit, although suitable habitat exists within both creeks. Pond turtle habitat is similar to that stated for the California red-legged frog, plus basking sites in the form of rocks, woody debris, and floating vegetation were observed.

The federal and state listed species of concern, the **coast horned lizard**, was not observed on-site during Rincon's site visits. Habitat for the coast horned lizard within the project site is considered marginal because of the few harvester ant colonies seen (the main prey base) and the

historic disturbance caused by disking in the agricultural crop area. Due to lack of suitable habitat and prey base, this species is considered unlikely to occur on the project site.

The **two-striped garter snake** is a California species of special concern. The two-striped garter is a semi-aquatic species generally associated with seasonal and perennial streams with good water quality and seasonal pools. Excellent habitat exists within Prefumo and San Luis Obispo Creeks, their associated riparian corridors and within agrestral habitat (foraging). No two-stripe garters were observed during Rincon's site visits although the species could occur within both these creeks. Food sources such as tadpoles, frogs, mice, and fish were observed.

A variety of raptors (birds of prey) that could utilize the habitats present at the site are considered sensitive due to declines in population levels. Birds of prey, such as the **sharp-shinned hawk**, **Cooper's hawk**, and **ferruginous hawk** all have extensive ranges that cover many habitats and are all California species of concern. Cooper's hawk could potentially nest in dense trees on-site March through August. The grasses in the ruderal habitat provide winter foraging habitat for the migratory ferruginous hawk. Sharp-shinned hawk would be winter visitors only to the project site and would not breed here, which is the time period during which they are considered sensitive. Cooper's hawk could nest on the site. The grasslands at the site are potential foraging habitat for **white-tailed kites**, which are known to occur at Laguna Lake Park.

The **tri-colored blackbird** is a state and federal species of concern. This species has been recorded at Laguna Lake Park (Envicom Corporation, 1980) and suitable habitat exists on-site within the marsh vegetation of Prefumo Creek or off-site within San Luis Obispo Creek. No tricolored blackbirds were observed on-site during any of Rincon's site visits.

The **burrowing owl** is a federal and state species of concern. The species was not observed during any of Rincon's site visits although marginal habitat exists in the banks of Prefumo Creek, San Luis Obispo Creek, and the drainage channel on the Dalidio property. This species has been recorded at the adjacent Laguna Lake Park (Envicom Corporation, 1980).

The small predatory **loggerhead shrike** is a Federal and State species of concern that nests in sparsely vegetated habitats. Suitable habitat exists on-site within the sparsely vegetated ruderal and riparian habitats.

The State endangered **western yellow bill cuckoo** was not observed during any of Rincon's site visits and it is not known to occur in the region. Its preferred habitat is dense riparian woodland dominated by cottonwood and willows. Although riparian habitat exists on-site and within San Luis Obispo Creek, it is not of sufficient density and structure to support nesting activities for the western yellow bill cuckoo.

The **great blue heron** is protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The U.S. Fish and Wildlife Service implement enforcement of the MBTA. Eucalyptus trees in the Dalidio property are used as roosting and nesting sites for both heron and vulture. This is supported by the Laguna Lake Management Plan Technical Appendix (1980) which states that there is a nesting colony of great blue herons, approximately a dozen pairs, in the eucalyptus stand across Madonna Road and these birds do about half of their foraging at Laguna Lake. Although the Technical Appendix for the adjacent Lake is almost 20

years since publication, it represents 10 years of avian research beginning in 1970. From this we know that the herons have been nesting in the eucalyptus trees on the Dalidio project site for at least 29 years. Approximately 10 nests were observed in the eucalyptus trees within the proposed office/business park area during Rincon's site visits. In addition, San Luis Obispo Creek is a known foraging area for the great blue heron.

The **pallid bat** is a California species of concern. The bat species would be expected to forage over the open grasslands of the site feeding on insects. Roost sites may include the eaves of buildings on-site within the Dalidio property.

The **Monterey dusky-footed woodrat** is a California species of concern. This woodrat is generally found in hardwood forests and brushlands. Its presence is often indicated by its house of sticks and twigs piled on the ground and near rock outcrops. Sufficient habitat does not exist on-site for this species and woodrat piles were not observed.

In addition to sensitive plants and animals, vegetation in California is accorded sensitivity rankings by CNPS and CDFG within the community classification of Holland (1986). Southern Willow Scrub and Coastal and Valley Freshwater Marsh are considered special status habitat types by regulatory agencies due to their declining status in southern California and known function as preferred habitat for several sensitive animal species. Wetlands and streams such as Prefumo Creek and San Luis Obispo Creek are also protected by regulations promulgated from the state and federal Clean Water Acts, California Fish and Game Code, and by local and regional water quality control boards.

4.5.2 Impact Analysis

a. Methodology and Significance Thresholds. Biological field reconnaissance of the site was performed on May 12, 1999, February 22, 2000, and August 4, 2003. The February field visit was primarily to evaluate biological resources within the proposed Prado Road interchange area. Dominant vegetation and animal species and their sign (scat, burrows, nests, etc.) at the project site were noted. The locations of dominant plant associations were mapped along with evidence of wildlife species. The May and August field survey was performed by walking meandering transects through the agricultural and residential building and storage area, along Prefumo Creek and riparian habitat on-site, along the drainage channel, and through the fringes of the row crops. Outside of the project area, Prefumo Creek was observed at its upstream connection with Laguna Lake and at various reaches downstream. Survey efforts for rare plants and wildlife species were focused in the plant communities and habitats where listed species had the greatest potential to occur and there was a potential for conflicts with the proposed land uses. For plant species, in addition to the CNDDB list, the California Native Plant Society (CNPS) publishes the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 1994). This list, as contained within the CDFG (1997) *Special Plants List*, was used to identify species of local and/or regional concern. Many of the species on the CNPS inventory list are not legally protected by the state or federal Endangered Species Act, but may be considered sensitive by local authorities.

Project impacts to biota may be determined to be significant even if they do not directly affect rare, threatened or endangered species. The California Environmental Quality Act (CEQA), Chapter 1, Section 21001 (c) states that it is the policy of the state of California to: Prevent the

elimination of fish and wildlife species due to mans activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities. Environmental impacts relative to biological resources may be assessed using impact significance criteria encompassing CEQA guidelines, federal, state and local plans and ordinances.

Pursuant to the State CEQA Guidelines, a project would result in a significant biological resources impact if it would :

- *Adversely impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (§670.2 or 670.5) or in Title 50, Code of Federal Regulations (§17.11 or 17.12);*
- *Have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*
- *Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service;*
- *Adversely impact federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means;*
- *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites;*
- *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*
- *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.*

b. Project Impacts and Mitigation Measures.

Impact BIO-1 Buildout of the proposed project would affect endangered, threatened, or rare species and their habitats. Impacts on wildlife species would be considered Class II, *significant but mitigable.*

Flora. The serpentine soils of the San Luis Obispo area are habitat for sensitive plant species. Several of the species that have the potential to occur on-site are known to occur on serpentine soils. Serpentine outcrops occur in the vicinity of the project area, but are not found on-site. The soils on the Dalidio property and Prado Road interchange area include Cropley clay and Salinas silty clay loam. Of the sensitive plant species listed in Table 4.5-1, adobe sanicle and Jones's layia are known to occur on clay soils. These two species were searched for but not observed on-site. The native habitat of the riparian areas has the highest potential to harbor sensitive plant species including Chorro Creek bog thistle and the San Luis Obispo sedge, but these two species require serpentine soil. These species were searched for but not observed during the May 1999 survey and are not expected due to the lack of serpentine soil.

Additionally, if these species were to occur on-site they would be within the area planned as permanent Open Space. The only construction activity known for either creek would be the potential Prefumo Creek road crossing to Los Osos Valley Road. Permits and conditions from USACE and CDFG associated with disturbance of the potential road to the creek and riparian habitat would include protection of these species if present.

Congdon's tarplant is known to occur in fallow agricultural fields. At the DeVaul property, approximately one-half mile west of the project site, a single Congdon's tarplant was observed in 1997. Follow-up surveys of the DeVaul property in 1998 discovered thousands of Congdon's tarplant. Currently, the fields on-site are actively being farmed with row crops and this sensitive species is unlikely to be present. However, if some of the fields become fallow, this annual plant could become established. While no significant impacts are anticipated at this time to this plant, future development activity could have an adverse effect.

No other sensitive plant species are known to occur or are likely to occur on-site given the historical agricultural use and no additional impacts to endangered, threatened, or rare plant species are anticipated.

Fauna. The Conservation Element (City of San Luis Obispo, 1993) identifies areas within the San Luis Obispo planning area with respect to their plant and wildlife value. These areas are important in that a significant amount of vegetation or wildlife is found in the area, and because they are completely or relatively undeveloped. The Conservation Element identifies the areas to establish their importance and to suggest recognition in future planning. Of the four areas specially identified, two areas occur within the project area: the Laguna Lake Park area and waterways. The eucalyptus trees on the Dalidio property are discussed for their importance in association with the Laguna Lake Park area and waterways are represented on-site by Prefumo Creek and off-site by San Luis Obispo Creek and their associated riparian habitats. The discussion here follows species groupings by those two habitat areas: the eucalyptus trees; and the creek areas.

Burrowing owls, a federal and state species of concern, are known to occur in the project vicinity (within Laguna Lake Park), and although unlikely, could potentially occur on the Dalidio property and/or U.S. Highway 101/Prado Road interchange site; most likely, on the banks of Prefumo and San Luis Obispo Creeks or the banks of the drainage channel on the Dalidio property. Loggerhead shrikes could also utilize sparsely vegetated habitats onsite for nesting activities. Disturbance of burrowing owls or their burrows or loggerhead shrikes would be considered a potentially significant impact.

Tree Habitats. Non-native eucalyptus trees on-site provide habitat for a variety of common and sensitive wildlife species. Great blue heron, vultures, raptors and Monarch butterflies (wintering sites) are the sensitive species known to inhabit the eucalyptus trees on-site within the Dalidio property.

Great blue herons, vultures, and raptors are protected by the Federal MBTA. The MBTA makes it unlawful to "take" (damage, destroy, remove, either intentionally or unintentionally) birds, nests, egg or young in the nest of any species under the act's protection. The take provision also includes any disturbance that causes a nest to fail and/or a loss of reproductive effort.

Additionally, all active raptor and heron nests are protected under the California Fish and Game Code.

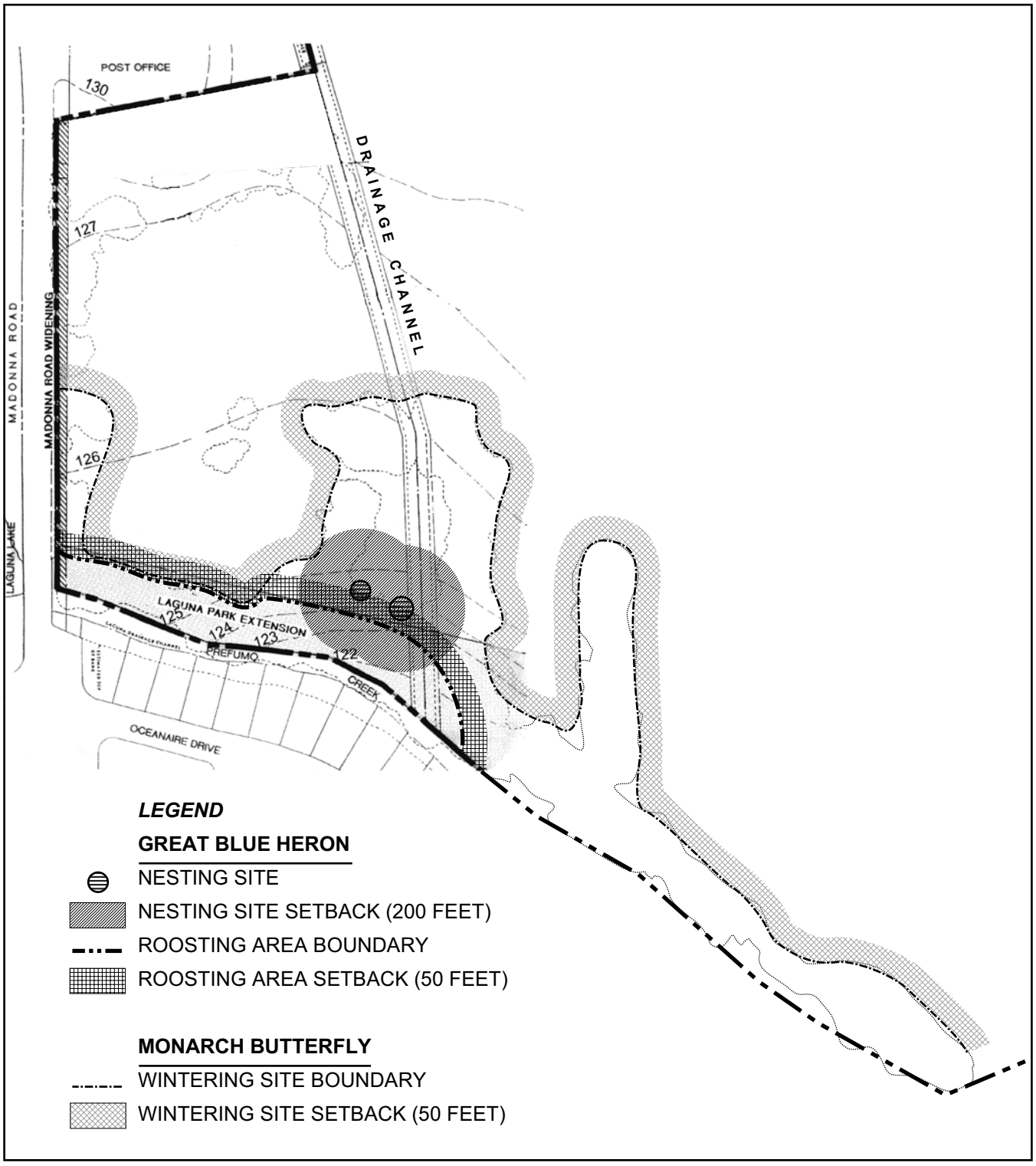
The currently active raptor and heron nests are located in the southern corner of the proposed Office/Business Park area (Figure 4.5-3). In order to accommodate the proposed project, several eucalyptus trees would be subject to cutting or pruning. Trees containing previously unidentified nest sites or known roost sites could be removed or could be adjacent to development activity in this portion of the project area. The removal of a tree containing an active nest would be considered a "take" and therefore a long-term significant impact. Long-term impacts also include: the loss of adjacent trees that do not contain nests but may serve as protection to the nesting colony; the loss of roost trees; and the increase of light, noise, and human and domestic animal presence. Nests/roosts would be subject to short-term construction impacts including noise, light, and the presence of increased human activity during construction. Both short and long-term impacts may cause a loss of reproductive effort or a "take" under the MBTA and would be considered a significant impact.

The Open Space Element (City of San Luis Obispo 1994) states that "the City should preserve as open space (A) Prefumo and San Luis Obispo Creeks and associated creek setback area, and (B) the portion of the Dalidio property utilized by herons and other unique resources or sensitive habitat." The permanent Open Space proposed by this project in the Laguna Lake Park extension would protect some, but not all, of the great blue heron habitat and would comply with (A) above. Additional protection is needed for the great blue heron rookery and mitigation measures are included for their protection, the protection of their habitat, and to be in alignment with the City according to Open Space (B) above.

Rookery abandonment in California has occurred from encroachment by building, tree cutting, and roadway construction, activities proposed for this project, and additionally from the draining of wetlands (CDFG, March 1995). In surveys during 1992 and 1993 in Solon, Ohio, a great blue heron nesting site established in 1958 was observed experiencing a sharp decline due to the encroachment of a large housing development on the heronry's perimeter (National Park Service, 1997). The report states that colonies can be found near populated areas as long as habitat and prey are available and the herons and their young are not stressed by physical disturbances.

Setbacks from great blue heron nesting sites are in some instances suggested or mandated. The timber industry in California mandates that "a buffer zone shall consist of the area within a 300 foot radius of a tree or trees containing a group of 5 or more active nests in close proximity as determined by CDFG." The USFWS suggests that "nesting sites should be observed from a distance of at least 200 meters (approx. 650 feet) to minimize disruption of the colony" (USFWS 1999). The USFWS goes on to state that if herons are disturbed frequently, they may abandon their nest or neglect their young. Current residential uses exist across Prefumo Creek approximately 200 feet away from the nests and are separated from the rookery by Prefumo Creek and, in most cases, by backyard fencing.

A safety issue exists with respect to the eucalyptus trees in the nesting area. The blue gum (*Eucalyptus globulus)* can reach height of 150 to 200 feet tall. Several trees in the roosting area are well over 100 feet tall. Roosting and nesting can cause trees or limbs to fail and dead trees or falling limbs could create safety problems with adjacent residential uses. Initially, the inner



BASE MAP: Dalidio Annexation Development Plan, March 1999

0 50 100 200 400
SCALE IN FEET

NORTH

Great Blue Heron and Monarch Butterfly Habitat on the Project Site

Figure 4.5-3

section of a stand of trees is utilized, but continual colony use may eventually kill that area. When the center of the tree stand dies, the colony moves circularly outward in succeeding years. This strategy creates a "donut" effect when the tree stand is aerially viewed (USFWS 1999).

Vultures and raptors are also protected by the MBTA. Vultures use the eucalyptus trees onsite as roost and nesting sites. Raptors were observed in and over the eucalyptus trees during the May 1999 and August 2003 site visits. The same MBTA regulations regarding "take" discussed above for the heron applies to these species. Therefore, loss of roost trees or disturbance causing a nest or reproductive effort to fail would be considered a significant impact.

As stated previously, the eucalyptus trees within the Prado Road interchange area do not consist of a large enough stand to provide viable habitat for monarchs. A wintering site for Monarch butterflies is recorded on-site in the eucalyptus trees within the Dalidio property in the June 2003 CNDDB. The monarch habitat on the CNDDB map encompasses the southwestern portion of the Dalidio property including Prefumo Creek and the southwestern half of the office/business park area. It is unknown exactly which trees are used for winter roosts. As stated previously in the heron discussion, trees will be subject to removal for development. Butterfly habitat could be subject to long-term impacts due to the loss of eucalyptus trees.

A portion of the habitat (trees) identified by CNDDB would be within the permanent Open Space area to be dedicated with the project. Rincon's surveys of the Dalidio property were not performed during the roost season and monarch butterfly clusters were not observed on-site. Dr. Kingston Leong (Professor of Entomology at Cal Poly San Luis Obispo) was contacted regarding this site (personal communication, May 1999). Dr. Leong was aware that this grove is used by monarch butterflies but stated that it was not a "major" roost. This is supported by Eabry (May 1999), retired biologist and local resident, who has observed monarch clusters in the eucalyptus trees on the Dalidio site. Dr. Leong agrees that the area needs further study to determine the extent and use of eucalyptus trees by monarchs prior to development in the area.

Waterways. The federally threatened southern steelhead is known to occur in Prefumo Creek and adjacent to the proposed Prado Road interchange area in San Luis Obispo Creek. These creeks are also potential habitat for the federally threatened California red-legged frog and the federal and state species of concern, the southwestern pond turtle and the two-striped garter snake.

An approximately seven-acre open space area along Prefumo Creek is planned for the Dalidio project and would serve to reduce impacts from project development to the creek. Nevertheless, impacts could occur from the proposed Los Osos Valley Road connection that would cross Prefumo Creek, construction of the auxiliary lane for the Prado Road interchange, and/or widening of the Prado Road bridge over San Luis Obispo Creek. Precise construction plans for the Prefumo Creek road crossing are not available at this time, but footings for the road crossing and associated infrastructure could cause short-term construction impacts to sensitive aquatic species due to diversion of water, disruption of habitat (e.g. vegetation), or changes in water quality. These impacts would in turn affect the species utilizing the wetland habitat. Temporary construction impacts may occur depending on the need for stabilization of

the roadbed and shoulder in the area of the right-of-way that has been undermined by San Luis Obispo Creek.

Long-term impacts to sensitive species could occur from the development by the increased presence of humans on-site including noise, light, and the introduction of humans near the Prefumo Creek area. Impacts currently exist from adjacent residential and agricultural uses. These short and long-term impacts could cause sensitive species on-site to be killed, to flee the area, or could cause disruption to breeding/nesting efforts and would be considered significant impacts to sensitive aquatic species. The permanent Open Space proposed for the creek area and the buffer required by the City would help reduce long-term impacts to aquatic species. Temporary construction impacts could result in an increased sediment load and pollutants within San Luis Obispo Creek, thereby potentially impacting the protected steelhead trout. Compliance with regulatory agencies with jurisdiction in the wetland and riparian habitat would reduce impacts.

It should be noted that the proposed project would remove existing farmlands from production (refer to Section 4.6, Agricultural Resources). The removal of these farmlands would reduce existing adverse impacts on habitats and sensitive species in downstream receiving waters related to contamination associated with the use of agricultural chemicals.

Mitigation Measures. The following mitigation measures are required.

BIO-1(a) Prior to development of fallow agricultural fields, surveys for Congdon's tarplant should be performed during the blooming period of this aster (June- November). If the species is found, avoidance is the preferred option. If avoidance is not feasible, on-site mitigation is preferred if suitable habitat is present. A restoration plan shall be prepared by a qualified plant ecologist. The restoration plan shall identify the number of plants to be replanted and the methods that will be used to preserve this species in this location. The plan shall also include a monitoring program so that the success of the effort can be measured. If off-site mitigation must be performed, Laguna Lake Park may contain appropriate habitat and would be a preferred site. Restoration efforts shall be coordinated with applicable federal, state, and local agencies.

BIO-1(b) All proposed site disturbance shall be set back at least 200-feet (radius) from great blue heron active nest sites. The perimeter of the setback area shall include a buffer and signage regarding the sensitivity of the great blue heron rookery. The buffer shall be of split rail fencing to discourage random human entry but to allow the passage of wildlife. The setback around great blue heron roosting sites shall be 50 feet. Eucalyptus or nesting trees within the nesting area shall not be removed unless they are a threat to human health or safety.

BIO-1(c) Prior to construction during the migratory bird/heron/raptor nesting season, a survey for active nests shall be conducted by a qualified biologist at the site no more than two weeks prior to any scheduled development. If active nests are located, construction within 500 feet of

Migratory Bird Treaty Act-bird, heron, or raptor nest trees (e.g., stands of Monterey pines, cypress, and eucalyptus, and the riparian corridors along San Luis Obispo Creek and Prefumo Creek) shall be limited to the time period after young have fledged and prior to next season's breeding. This is generally September 1 to February 1, although a qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to the start of construction. Nest trees shall only be removed outside the nesting season, or after a qualified wildlife biologist verifies that the nest is empty and the nest tree is no longer used by a raptor.

BIO-1(d) During both the wintering and nesting seasons (unless the species is detected on the first survey), a qualified biologist shall conduct surveys for burrowing owls in potential habitat areas prior to construction in accordance with the guidelines described in the *CDFG Staff Report on Burrowing Owl Mitigation, 1995*. Winter surveys shall be conducted between December 1 and January 31, and the nesting season survey shall be conducted between April 15 and July 15. If burrowing owls are detected within the proposed disturbance area, CDFG shall be contacted immediately to develop and implement a mitigation plan to protect owls and their nest sites.

BIO-1(e) The setback around Monarch butterfly wintering site habitat shall be 50 feet from the perimeter of the habitat. A survey to determine the extent of the Monarch butterfly habitat shall be conducted between the months of January and March within 1 year prior to construction by a qualified biologist or lepidopterist.

BIO-1(f) Trees removed for project development shall be replaced at a ratio of at least 1:1 and of a height to shield on-site Monarch butterfly wintering sites and sensitive avian nesting habitat. In addition to review by the City Arborist, a qualified biologist shall review the replacement plan. Evergreen trees shall be selected that reach a height capable of forming a suitable windbreak, as determined by a qualified biologist.

BIO-1(g) The proposed permanent Open Space area along Prefumo Creek shall preserve the habitat and allow only those passive recreational uses that will not significantly disturb sensitive wildlife species.

BIO-1(h) Prior to recordation of the final map or issuance of building permits, the applicant shall prepare a detailed lighting plan for review and approval by City staff, a qualified biologist, and the Architectural Review Board to ensure the size and brightness of fixtures is minimized and that lights are hooded and directed toward the ground.

BIO-1(i) If riparian vegetation is removed for construction of the secondary road connecting to Los Osos Valley Road or the Prado Road interchange, it shall be replaced with locally occurring native species according to a

restoration plan prepared by a qualified plant ecologist (See Mitigation Measure BIO-3(d) below). This plan shall be subject to the approval by the City of San Luis Obispo, specifically by the City's Natural Resources Manager and the City Arborist. Construction for the portion of the road through Prefumo Creek and any riparian habitat shall not be conducted until all required federal, state and local permitting is approved and issued by those agencies with jurisdiction, (e.g. USACE, CDFG, NMFS, and USFWS). Best Management Practices shall be employed to reduce impacts to water quality (see Section 4.2 of this EIR).

BIO-1(j) Prior to development of the office/business park or park components of the proposed project or any roadway modifications, including but not limited to modifications to Madonna Road, or the site's internal roadway system, a qualified arborist, selected by the City, shall survey the eucalyptus grove on the Dalidio Property. The purpose of the survey shall be to identify trees whose health status would pose a risk to the health and safety of residents, employees, or people present within the park or open space areas. Based on the results of this survey a tree-thinning program shall be created, which provides for the thinning or maintenance of the unhealthy trees only. The thinning program shall be reviewed and approved by the City of San Luis Obispo Community Development and Public Works Departments. No thinning activities shall occur that conflict with the previous or following mitigation measures in this document regarding time constraints on construction activities and/or sensitive species utilizing these trees.

Significance After Mitigation. Implementation of the above mitigation measures would reduce adverse long and short-term impacts to sensitive plant and fish and wildlife species to a less than significant level.

Impact BIO-2 Buildout of the proposed project would affect locally-designated protected trees. This is considered a Class II, *significant but mitigable* impact.

The Dalidio project area contains mature eucalyptus trees, some of which are greater than 100 feet in height, and the majority of which are in the western area of the Dalidio property. A portion of the trees would be within the proposed open space to be dedicated as an extension of Laguna Lake Park, but the majority of the trees on-site would be within the area identified for site improvements.

In addition to being a visual or aesthetic resource, these trees are a biological resource that provide habitat for several species. Impacts and analysis regarding species associated with these trees is included in Impact BIO-1 above. Trees could be subject to damage or disturbance from construction of general retail, office/business park and infrastructure development.

Development of the Prado Road interchange would potentially impact locally-designated trees within the existing Caltrans right-of-way. These trees are subject to the City's tree protection regulations.

Mitigation Measures. The following mitigation measures are required to provide compliance with the City's Tree Regulations (City of San Luis Obispo, 1997) and to reduce potentially significant impacts to trees.

BIO-2(a) With the submittal of a precise development plan for the project, the developer shall submit plans for review by the City Arborist and for eventual review and approval by the Architectural Review Commission, which show the following information:

1. *The locations of all existing trees, noting location, species, diameter, and condition;*
2. *Note whether existing trees will be retained, removed, or relocated; and*
3. *The location of proposed utilities, driveways, street tree locations, and the size and species of proposed street trees.*
4. *A landscaping plan which shows the size and species of all trees proposed to be planted in the project.*

BIO-2(b) The developer shall abide by the requirements of the City Arborist for construction. Requirements shall include but not be limited to: the protection of trees with construction setbacks from trees; construction fencing around trees; grading limits around the base of trees as required; and a Replacement Plan for trees removed including replacement at a minimum 1:1 ratio.

Significance After Mitigation. Implementation of these measures would reduce impacts to trees to a less than significant level.

Impact BIO-3 Buildout of the proposed project would affect riparian and wetland habitat (e.g. marsh, riparian, and vernal pool). This is considered a Class II, *significant but mitigable* impact.

Wetlands are protected on a Federal, state, and local level. The fill of wetlands is subject to a Section 404 permit under the Federal Clean Water Act (CWA). Discharges to wetlands and waters are also subject to a CWA Section 401 certification from the California Regional Water Quality Control Board (RWQCB). On a local level, the City of San Luis Obispo protects wetlands, in this case San Luis Obispo Creek, Prefumo Creek and the drainage channel within the Dalidio property, through Creek Setbacks contained within the Zoning Regulations (City of San Luis Obispo, 1999).

Run-off from construction could have short-term significant impacts to Prefumo and San Luis Obispo Creeks. Increases of impermeable surfaces, such as commercial structures, parking lots, walkways, and other paved areas could have long-term impacts to water resources and water quality. The proposed collector road to Los Osos Valley Road would have to cross Prefumo Creek in order to accomplish the connection to Los Osos Valley Road, as illustrated in Figure 2-12 in Section 2.0, *Project Description*. Impacts from the road crossing could have short and long-term significant impacts with respect to wetland habitat and biological resources. Additionally, the widening of the Prado Road bridge over San Luis Obispo Creek, as required in Mitigation Measure T-1(c) in Section 4.10, *Traffic and Circulation,* could encroach into riparian habitat associated with San Luis Obispo Creek. Silt, sedimentation, or run-off from construction practices could effect water

quality in Prefumo and San Luis Obispo Creeks and in turn effect the species residing in or utilizing the water in the creek. Dredge or fill may be required to build the Prefumo Creek road crossing for the Los Osos Valley Road connection.

Long-term run-off from impermeable surfaces on-site would result in an increased flows of storm pollutants from roads and parking surfaces such as oils, grease, heavy metals, and rubber. During storm events, these pollutants would be transported to drainage systems and Prefumo and San Luis Obispo Creeks causing long-term significant impacts to water quality in wetlands. Impacts to water quality would in turn affect oxygen, pH, temperature, and nutrient levels of the water. Siltation can also bury eggs, insects, algae, and vegetation. These creeks support both common and sensitive wildlife species that could be affected by the degradation of wetlands and water quality (refer to Impact BIO-1). Section 4.2 Drainage and Water Quality of this document includes a project impact analysis and mitigation measures regarding flooding, erosion, and siltation. The mitigation measures in Section 4.2 would in turn protect wetland habitat and are referenced at the end of this discussion.

In addition to the water within the wetland habitat there is marsh and riparian vegetation on-site. The mitigation measures included in Section 4.2 would help to protect marsh vegetation within the creek bed by reducing water quality impacts associated with site development.

According to the City of San Luis Obispo Zoning Regulations (Section 17.16.025; 1999), the required development setback is 35 feet for Prefumo Creek and 20 feet for the drainage channel flowing into Prefumo Creek. The Zoning Regulations require a 50-foot setback for San Luis Obispo Creek. However, U.S. Highway 101 and its associated right-of-way are currently located within 50 feet of San Luis Obispo Creek. Since it is assumed that the proposed Prado Road auxiliary lane would utilize the area currently maintained as a freeway shoulder, the setback for San Luis Obispo Creek is not considered applicable to this project. The City's Zoning Regulations require creek setbacks that are measured from the top of bank or from the edge of the predominant pattern of riparian vegetation, whichever is farther from the creek's flowline. Eucalyptus trees dominate the top of bank along Prefumo Creek from Madonna Road to the vicinity of the confluence with the drainage channel. Riparian vegetation is found primarily on the banks in this area. Therefore, setbacks would be measured from the top of bank, as eucalyptus is not considered a native riparian species. To the south of the drainage channel on the Dalidio property, the eucalyptus grove is oriented east and away from the creek. From this area to the southern border of the project site, Prefumo Creek has a native and well-developed riparian overstory that extends out from the top of bank. Therefore, setbacks in the southern area would be measured from the edge of riparian vegetation, as illustrated in Figure 4.5-1.

The Laguna Lake Park extension would include the dedication of areas as Permanent Open Space and the riparian habitat and the creek setback along Prefumo Creek would be located within this open space. Regardless of whether the creek habitat and the setback are included within the open space, project development would be required to observe the 35 foot setback from Prefumo Creek. Additionally, the City Zoning Regulations (1999) state that the exact location of top of bank and riparian vegetation shall be shown on all project plans subject to City approval. The drainage channel flowing to Prefumo Creek would be under USACE jurisdiction as "waters of the United States." A specific wetland delineation is required for permitting purposes to determine the extent of wetland areas, if any. Any development in this location would be subject to USACE, CDFG, and City requirements. The City's Creek Setback

Classes Map (1998) illustrates this channel as having a 20-foot setback. Any future development adjacent to this channel would be required to meet this setback.

Mitigation Measures. Mitigation measures are included to assure compliance with the City's Creek Setback Ordinance (Section 17.16.025 of the City's Zoning Regulations) and other permitting agency requirements. Mitigation measures from Section 4.2, Drainage and Water Quality, would also reduce potentially significant impacts to wetlands.

BIO-3(a) Proposed site disturbances shall be set back at least 35 feet from Prefumo Creek and 20 feet from the drainage channel on the Dalidio property as measured from the top of bank or from the edge of the predominant pattern of riparian vegetation, whichever is farther from the creek's flowline.

BIO-3(b) The location of top of bank and of riparian vegetation shall be shown on all project plans, subject to the review and approval of the City's Natural Resources Manager.

BIO-3(c) If wetlands and/or riparian habitat are subject to permitting or consultation with public agencies, such as USFWS, CDFG, or NMFS, required setbacks or conditions regarding wetlands and riparian habitat shall be observed.

BIO-3(d) If wetlands and/or riparian habitat are removed for project development, the following shall apply **:**

The applicant shall submit a Mitigation Plan for areas of disturbance to wetlands and/or riparian habitat. The plan shall be designed by a biologist familiar with restoration and mitigation techniques. Restoration and mitigation shall be with locally occurring native species at a ratio of 1:1 for riparian habitat and 2:1 for delineated wetland habitat. The plan shall include, but not be limited to the following components:

1. *Performance criteria (i.e.: what is an acceptable success level of revegetation to mitigate past impacts);*
2. *Monitoring effort (who is to check on the success of the revegetation plan, how frequently);*
3. *Contingency planning (if the effort fails to reach the performance criteria, what remediation steps need to be taken);*
4. *Irrigation method /schedule for wetland elements (how much water is needed where and for how long); and*
5. *Provisions for the removal of non-native invasive species (including details regarding the type and use of herbicides in and near aquatic habitat and sensitive species).*

In addition to the above mitigation measures, measures included in Section 4.2, Drainage and Water Quality, would also serve to reduce potentially significant long and short-term impacts to wetlands and biological resources to less than significant. These mitigation measures include DW-1(a); DW-2(a) through (c); and DW-3(a) through (c).

Significance After Mitigation. Implementation of these measures would reduce impacts to wetlands to a less than significant level and ensure that the project is in compliance with the Creek Setback Ordinance as contained in the Zoning Regulations (1999).

Impact BIO-4 Build-out of the proposed project may affect wildlife dispersal and migration corridors. This is considered a Class III, *less than significant impact*.

Habitat linkages are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. A group of habitat linkages in an area can form a wildlife corridor network. At this time, it is important to distinguish between a specific migratory corridor and general movement pathways within a habitat linkage. Certain animals follow specific corridors as part of an evolutionary pattern or as seasonal movements and they have little ability to modify their behavior to follow that route given physical changes. Examples of this are: 1) certain amphibians that follow specific routes between aestivation sites and breeding pools; 2) steelhead trout and salmon that tend to return to specific nativity streams; and 3) caribou that follow specific trail routes between breeding and wintering grounds. Movement pathways are simply a route that an individual highly mobile animal such as a mountain lion, coyote, or mule deer may travel between seasonal resource areas. Such pathways typically follow drainage patterns, ridges, and passes, but the individual animal, and the population as a whole, can choose to take a different route between the resources provided that alternatives are available.

Habitat linkages are generally areas by which larger, separate areas of similar habitat values are connected physically. The habitats within the link do not necessarily need to be the same as the habitats that are being linked; it merely needs to contain sufficient cover and forage to allow temporary inhabitation by ground-dwelling species. Typically habitat linkages are contiguous strips of natural areas, though dense plantings of landscape vegetation can serve for certain urban-tolerant species. Depending on the species intended to utilize a corridor, specific physical resources (such as rock outcroppings, vernal pools, oak trees) need to be located within the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources, spaced sufficiently close to permit travel along a route in a short period of time.

When habitat linkages are too small or narrow, they may collapse ecologically due to encroachment or edge effects. An example is a corridor intended for deer movement that is so narrow that adjacent residential lighting is too bright for deer to tolerate crossing open pools of light. For small mammals, such as rodents and reptiles, habitat linkages need to be sufficiently wide to decrease the predatory effects of feral dogs and cats associated with suburban development. In general, the larger a link is, the better it functions for the movement of animals and genetic material between major areas of open space.

The proposed project site lies in the San Luis Obispo Creek watershed to the east of the Irish Hills and south of Laguna Lake Park. Prefumo Creek flows along the western border of the site

adjacent to existing residential uses. San Luis Obispo Creek flows just outside the eastern boundary of the site, adjacent to the Caltrans right-of-way. Animals can be expected to move throughout the site, but U.S. Highway 101 to the east and commercial development to the northeast of the site serve as a substantial barrier to further north and eastward animal movement except for highly mobile animals such as birds and bats. Prefumo Creek along the western edge of the property serves as a migratory pathway for aquatic and some terrestrial wildlife moving north (upstream) to Laguna Lake Park or south, beneath U.S. Highway 101 to San Luis Obispo Creek. San Luis Obispo Creek serves as a migratory pathway for a variety of animals including the State and Federally protected steelhead trout, which travel upstream to spawn. Large animal movement within the project site appears to follow a network of movement pathways, with deer and coyote tracks evident along the dirt roads and drainage channel on the Dalidio property. Small rodent trails are also evident throughout the ruderal grasslands. Deer have also been seen in the agricultural fields on-site, although bedding does not appear to occur on-site.

The pathway for larger animals to access the Irish Hills would be through adjacent agricultural uses to the west but animals would have to cross Los Osos Valley Road. The project as proposed would not interrupt the free movement of land animals from the project site to the Irish Hills off-site to the west. Animals would still be able to access the western hillsides via the open space lands to the west of the property. The proposed open space around Prefumo Creek is a vegetated area that would be unoccupied by people during the night and that would continue to serve as a pathway for aquatic, avian, and terrestrial wildlife. Therefore, the project would not create a significant barrier to the general regional movement of fish and wildlife resources.

Mitigation Measures. No mitigation measures are necessary.

Significance After Mitigation. Impacts to the movement of wildlife are less than significant.

c. Cumulative Impacts. Urban and agricultural development of the City of San Luis Obispo has essentially eliminated the natural communities that once existed around ¾ of the project site. The northern portion at Laguna Lake Park, however, has not been developed and this land holding would remain as a Park with surrounding open space to the site. By preserving the Prefumo Creek area and surrounding eucalyptus trees as an extension to the Park, the proposed project would act to conserve the remaining natural communities and habitat for sensitive species. Adherence to the mitigation measures described above would reduce potential long-term impacts related to degradation of habitat for steelhead trout to a less than significant level. Therefore, cumulative impacts to biological resources would be less than significant.