4.3 BIOLOGICAL RESOURCES

This section of the EIR identifies and evaluates potential impacts to biological resources resulting from implementation of the project.

4.3.1 Existing Conditions

The project site is located near the southern boundary of San Luis Obispo County, within and adjacent to the community of Nipomo. Elevations within the project site range from approximately 76 to 95 meters or 250 to 310 feet above mean sea level (msl). The project site is located adjacent to agricultural fields and a few private residences. Three creek corridors occur on the project site: Nipomo Creek, Adobe Creek, and Carillo Creek.

The project site was surveyed by Terra Verde biologists on May 31, 2010, and May 19 and 25, 2011. Additional focused visits to Carillo Creek and the surrounding areas were conducted in the summer and fall of 2011. The results of the surveys are documented in the *Dana Adobe Stories of the Rancho Project Biological Resources Assessment* (Terra Verde 2011) and are incorporated into the discussion and analysis below. The full report is also included in Appendix C of this EIR.

4.3.1.1 Native and Important Vegetation

Four vegetation communities were observed within the survey area. The area west of Nipomo Creek includes the Dana Adobe and associated uses, access driveway and informal parking area, and fenced equestrian pasture. Habitat and vegetation within this portion of the 30-acre area includes coastal scrub (yellow bush lupine scrub), individual coast live oak (*Quercus agrifolia*) trees, locust (*Robinia* sp.) trees, and a eucalyptus (*Eucalyptus* sp.) tree.

Agricultural/rangeland is present within the area east of Nipomo Creek. Vegetation communities within this area, including Nipomo Creek, include: ruderal/disturbed, grassland (wild oats grassland, perennial ryegrass fields), riparian (seasonal drainage/arroyo willow scrub, riparian oak woodland/coast live oak woodland), and seasonal wetland (creeping rye grass turfs). Current and proposed agency restoration efforts on the 100-acre portion of the site include: riparian corridor restoration by the Land Conservancy, and oak woodland restoration to be implemented by the County as mitigation for the Willow Road project (an approximately 3-mile road extension and US 101 interchange project approximately 2.5 miles northwest of the project site).

4.3.1.2 Special-Status Species

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

The *Biological Resources Assessment* determined that the survey area contains suitable habitat for 21 sensitive plants. No sensitive plant species were observed on-site during the seasonal field surveys.

Based on surveys of the project site and assessment of habitat, the project site supports potential habitat for 14 special status species, which are discussed below. Only one special status species was observed during field surveys, white-tailed kite (*Elanus leucurus*). The following species are not expected to occur due to the lack of suitable breeding habitat in the project vicinity: California tiger salamander (*Ambystoma californiense)* (Federal and State Threatened, State Species of Special Concern) and western spadefoot toad (*Spea hammondii*) (State Species of Special Concern [SSC]). Southern steelhead (*Oncorhynchus mykiss irideus*) (Federally Protected Species) are also not expected to occur at the project site due to significant downstream barriers to their upstream migration.

American Badger

American badger (*Taxidea taxus*), an SSC, is a non-migratory species that occurs throughout most of California. It occurs in more open and arid habitats including grasslands, meadows, savannahs, open-canopy desert scrub, and open chaparrals. It requires friable soils in areas with low to moderate slopes. American badger typically breeds from May through September, but it may not breed every year. This species has not been previously documented within a 5-mile radius of the project site (California Department of Fish and Wildlife [CDFW] 2011). The grasslands within and surrounding the survey area are considered suitable habitat for American badger, although suitable burrows for this species were not observed. This species was not observed within the survey area during the field surveys.

Pallid Bat

Pallid bat (*Antrozous pallidus*), an SSC, is typically found in arid desert habitats and utilizes protective landscape features for roosting such as rock crevices, caves, tree hollows, mines, old buildings, and bridges. They also occur in oak and pine forested areas and open farmland. This species uses semi-dark day-roosts which provide some protective cover. Pallid bats prefer darkness, shelter from wind and rain, and an easy escape if they are disturbed. Although not a requirement, roosts are generally found near a source of water. Breeding begins in October and continues sporadically throughout the winter. This species has not been previously documented within a 5-mile radius of the project site (CDFW 2011). The open agricultural lands and the riparian corridor are considered suitable foraging lands for this species. This species was not observed within the survey area during the field surveys.

California Red-legged Frog

California red-legged frogs (*Rana draytonii*), a Federal Threatened species and SSC, require permanent or semi-permanent bodies of water such as lakes, streams, or ponds with plant cover for foraging and breeding habitat. These frogs also use lowland and grassland areas to hunt and forage for food. Frogs have been documented more than 1 mile away from waterbodies. Reproduction occurs in aquatic habitats and occurs from late November to early April. Egg masses are laid in the water, often under the protection of emergent vegetation. California red-legged frog is known to occur near the project site. This species has been documented within a 5-mile radius of the project site (CDFW 2011).

The riparian corridor is not considered suitable breeding habitat for this species due to the variable source of water and lack of deep pools. The dense riparian vegetation around the creek and the surrounding open grassland provide suitable foraging and upland habitat for this species. This species was not observed within the survey area during the field surveys; however, a documented occurrence is known near the project site.

Coast Range Newt

Coast range newts (*Taricha torosa torosa*), an SSC, are typically found in slow moving streams, ponds, and lakes with surrounding evergreen and oak forests, chaparral, and rolling grasslands along the coast. In southern California, drier chaparral, oak woodland, and grasslands are also used as habitat. Adults migrate from terrestrial habitats to ponds, reservoirs, and sluggish pools in streams to breed, typically between December and February, depending on rainfall amounts. This species is endemic to California, found along the coast and Coast Range Mountains from Mendocino County south to San Diego County. This species has not been previously documented within a 5-mile radius of the project site (CDFW 2011). The riparian corridor and adjacent grasslands are considered suitable habitat for this species. This species was not observed within the survey area during the field surveys.

Southern Pacific Pond Turtle

Southern Pacific pond turtle (*Actinemys marmorata pallida*), an SSC formerly known as the western pond turtle, occupies a wide range of habitats including wetlands, rivers, streams, lakes, and stock ponds for feeding and basking sites. These turtles also require upland areas for aestivation, wintering, and nesting sites. Nesting typically occurs along the edges of lakes or ponds but may also occur up to 500 meters from water. This species starts nesting in April with a peak in May through July and typically concludes in August. Turtles have been documented as traveling up to 60 meters into upland areas for aestivation sites. This species has not been previously documented within a 5-mile radius of the project site (CDFW 2011). The project area lacks deep pools and basking sites required by turtles. However, the riparian corridor and the adjacent upland areas are considered marginally suitable habitat for this species. No pond turtles were observed during the surveys.

Silvery Legless Lizard

Silvery legless lizard (*Anniella pulchra pulchra*), an SSC, requires sandy or loose loamy soils within coastal dune scrub, coastal sage scrub, chaparral, woodland, riparian, or forest habitats. It requires cover such as debris, logs, leaf litter, or rocks and will cover itself with loose soil. Silvery legless lizard is thought to be a diurnal species that breeds between the months of March through July. It gives live birth to young in the early fall. This species has not been previously documented within a 5-mile radius of the project site (CDFW 2011). The coastal scrub community on the western side of the survey area is suitable habitat for this species. Silvery legless lizard was not observed within the survey area during the field surveys.

Coast Horned Lizard

Coast horned lizards (*Phrynosoma blainvillii*), an SSC, inhabit open areas of sandy soil and low vegetation in valleys, foothills, and semi-arid mountains from sea level to 82,438 meters in elevation. They are typically found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Additionally, they are often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and are frequently found near ant hills. This species has been documented within a 5-mile radius of the project site (CDFW 2011). The sandy soils and shrubs on the western side of the survey area are suitable habitat for this species. This species was not observed within the survey area during the field surveys.

Two-Striped Garter Snake

Highly aquatic, two-striped garter snakes (*Thamnophis hammondii*), an SSC, forage primarily in and along streams hunting fishes, especially trout and sculpins and their eggs, and amphibians

and amphibian larvae. The preferred nocturnal retreats of this active diurnal snake are thought to be holes, especially mammal burrows, crevices, and surface objects (Rathburn et al. 1993). During the day, this garter snake often basks on streamside rocks or on densely vegetated stream banks. When disturbed it usually retreats rapidly to water. In milder areas, mammal burrows and surface objects such as rocks and rotting logs serve as winter refuges. Courtship and mating normally occur soon after spring emergence. Young are born alive in the late summer, usually in secluded sites such as under the loose bark of rotting logs or in dense vegetation near pond or stream margins (Cunningham 1959; Rossman, et al. 1996). Historically common, it is associated with permanent or semi-permanent bodies of water in a variety of habitats from sea level to 2,400 meters. This species has not been previously documented within a 5-mile radius of the project site (CDFW 2011). Nipomo Creek and the riparian corridor is suitable habitat for this species. This species was not observed within the survey area during the field surveys.

Sharp-Shinned Hawk

Sharp-shinned hawk (*Accipiter striatus*), a Federal Threatened species and SSC, inhabits a variety of natural and urban habitat communities, including aspen, pine, and fir forests and urban, rural, and agricultural areas. This species typically nests in conifer trees, 20 to 60 feet above the ground where there is sufficient overhead shading. Peak nesting season for this species is from March to June, but often extends through the summer. Breeding range for this species typically occurs in colder areas, including high elevation forests in the Rocky Mountains, large areas of Canada, Alaska, and most of the northeastern United States. Breeding grounds also extend into portions of northern California, Nevada, and Washington. Much of the Canadian territory for sharp-shinned hawk is utilized only during the breeding season. This species has been documented within a 5-mile radius of the project site (CDFW 2011). The agricultural fields and upland habitat occurring on and near the project site are considered potential foraging habitat for this species. This species was not observed during the field surveys.

Burrowing Owl

Burrowing owls (*Athene cunicularia*), an SSC, are yearlong residents of open, dry grasslands and desert habitats, and in grass, forb, and open shrub stages of pinyon-juniper woodland and ponderosa pine forest habitats. Burrowing owls eat mostly insects, but will also eat small mammals, reptiles, birds, and carrion. They use rodent or other burrows for roosting and nesting cover, moving between perches and burrows to thermoregulate as temperatures change throughout the day. Nesting occurs in old burrows of small mammals but they may dig their own burrows in soft soils. These owls may also use pipes, culverts, or nest boxes when burrows are sparse. Breeding occurs from March through August, with a peak in April and May (Zeiner, et al. 1990). This species is typically a winter resident in the western portion of San Luis Obispo County, with breeding occurring in the eastern portion of the county. This species has not been previously documented within a 5-mile radius of the project site (CDFW 2011). The agricultural fields on and near the project site are considered suitable habitat for this species. However, no suitable burrows were observed, and the vegetation of the grasslands is taller than that typically used by these owls. This species was not observed during the field surveys.

White-tailed Kite

White-tailed kites (*Elanus leucurus*), a State Fully Protected Species, require coastal and valley lowlands along with herbaceous open space habitats. Suitable habitat for this species consists of three components; nesting, foraging, and roosting. Kites will nest in various types of trees

including dense oaks, willows, or other tree stands. Nests are placed atop trees at least 6 to 20 meters above the ground and are made from sticks, twigs, or other ground litter. This species forages for small mammals during long-distance flights over a wide variety of terrain including grasslands, meadows, and farmlands. Kites hover above the ground at 30 meters then descend onto prey with wings held high. Kites spend the majority of time perched in roosting and nesting sites that are adjacent or close to foraging habitats. Kite nesting season is typically from February to October with a peak from May to August. This species has not previously been documented within a 5-mile radius of the project site (CDFW 2011). However, a white-tailed kite was observed foraging on the east side of the property on several occasions. The open grassland and agricultural fields provide foraging habitat for this species. As noted above, it appears white-tailed kites use the eastern grasslands of the property for foraging purposes as they were observed frequently hovering over this area.

Southwestern Willow Flycatcher

Southwestern willow flycatcher (*Empidonax traillii extimus*), a Federally Endangered and State Endangered species, requires dense riparian habitats with microclimatic conditions dictated by the local surroundings. Saturated soils, standing water, or nearby streams, pools, or cienegas are a component of nesting habitat that also influences the microclimate and density of the vegetation component. Habitat not suitable for nesting may be used for migration and foraging. This species eats primarily flying insects.

The flycatcher is a summer breeder within its range in the United States. It migrates to wintering areas in Central America by the end of September. Nest territories are set up for breeding, and there is some site fidelity to nest territories. Southwestern willow flycatchers arrive on breeding grounds in late April to early May. Nesting begins in late May and early June, with fledging from late June to mid-August. Human disturbances at nesting sites may result in nest abandonment (U.S. Fish and Wildlife Service 2011). This species has not been previously documented within a 5-mile radius of the project site (CDFW 2011). The willow riparian corridor is suitable habitat for southwestern willow flycatcher. This species was not observed or heard during the field surveys.

Prairie Falcon

Prairie falcons (*Falco mexicanus*), an SSC, utilize a variety of habitats, including dry grasslands, woodlands, savannahs, cultivated fields, lake shores, and rangelands. These birds are aerial foragers, often feeding in canyons on rodents and smaller birds. Nesting sites are typically on south-facing, overhanging cliffs and rock outcrops, up to 500 feet high. This species has a nesting period that lasts between one and two months, typically between February and April, but sometimes extending into the summer. This species has not been previously documented within a 5-mile radius of the project site (CDFW 2011). The agricultural fields and upland habitat occurring on and near the project site are considered potential foraging habitat for this species. No prairie falcons were observed during the surveys.

Least Bell's Vireo

Least Bell’s vireo (*Vireo bellii pusillus*), a Federally Endangered and State Endangered species, primarily occupies riparian habitats along open water or dry parts of intermittent streams, generally below 460 meters in elevation (USFWS 1986; Small 1994, as cited in Dudek and Associates 2005; Kus 2002). They are generally associated with the following vegetation types: southern willow scrub, cottonwood forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, wild blackberry scrub, and mesquite scrub in

desert localities (Kus 2002). Kus (2002) indicates that vireo typically forage in riparian and adjoining upland habitat. Critical habitat for the species has been designated in Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, and San Diego Counties (USFWS 1992). Critical habitat patches occur on the Santa Ynez, Santa Clara, Santa Margarita, San Luis Rey, Sweetwater, San Diego, and Tijuana Rivers (USFWS 1992). This species has not been previously documented within a 5-mile radius of the project site (CDFW 2011). The willow riparian corridor is suitable habitat for least Bell's vireo. This species was not observed or heard during field surveys.

4.3.1.3 Wetland and Riparian Habitat

Several small areas dominated by native grasses including creeping wild rye (*Leymus triticoides*) and salt grass (*Distichlis spicata*) were observed just east of Nipomo Creek. Salt grass is a facultative wetland species and usually occurs in wetlands, and creeping wild rye is commonly found in wetlands, although it is equally likely to occur in non-wetlands. Observed non-native species include black mustard (*Brassica nigra*) and Italian thistle (*Carduus pycnocephalus*) occasionally within the community and abundant in the surrounding vegetation.

There are two creek corridors at the project site that drain to Nipomo Creek, which runs from the northwest to the south through the site. Both drainage corridors show similar species composition and signs of active restoration, including irrigation lines and recently planted shrubs, trees, and flowers. The dominant species within this community is arroyo willow (*Salix lasiolepis*). Other native shrubs and trees such as blue elderberry (*Sambucus nigra*) and coyote brush (*Baccharis pilularis*) are co-dominants in the canopy and shrub layer. The herbaceous understory is composed of a mix of native and non-native species such as mugwort (*Artemisia douglasiana*), yellow monkeyflower (*Mimulus guttatus*), California wild rose *(Rosa californica*), and poison hemlock (*Conium maculatum*).

The vegetation of Nipomo Creek above and below the survey area is composed of a mixed tree layer dominated by coast live oak, California box elder (*Acer negundo* var. *californica*), and arroyo willow. The canopy is continuous with an intermittent shrub layer and sparse to absent herbaceous understory. Dominant understory species include poison oak (*Toxicodendron diversilobum*) and creeping snowberry (*Symphoricarpos mollis*). Within the creek, watercress (*Nasturtium officinale*), a native perennial herb, is abundant. Outside of the canopy and along the streambank, Harding grass (*Phalaris aquatic*), a non-native perennial grass is abundant.

4.3.1.4 Wildlife Corridors and Migration

Grasslands often provide important habitat for a variety of wildlife species. Raptors, such as red-tailed hawk (*Buteo jamaicensis*), barn owl (*Tyto alba*), and American kestrel (*Falco sparverius*), commonly use open grassland areas extensively for foraging purposes, while species such as western meadowlark (*Sturnella neglecta*) and red-winged blackbirds (*Agelaius phoeniceus*) use open grasslands for nesting. In addition, a white-tailed kite has been observed foraging in the grasslands of the property. Reptiles which commonly breed within grassland habitats include western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catinifer*), and western rattlesnake (*Crotalus viridis*). Grasslands can also provide habitat for a variety of small mammal species such as Botta's pocket gopher (*Thomomys bottae*), California mouse (*Peromyscus californicus*), and western harvest mouse (*Reithrodontomys megalotis*). Larger mammals such as bobcat (*Lynx rufus*), coyote (*Canis latrans*), and mule deer (*Odocoileus hemionus*) may occur. Bird species that are expected to occur in or frequent this habitat include California towhee (*Pipilo crissaliss*), spotted towhee (*Pipilo maculates*), white-crowned sparrow

(*Zonotricha leucophrys*), wrentit (*Chamaea fasciata*), California thrasher (*Toxostoma redivivum*), and western scrub jay *(Aphelocoma californica).*

Riparian woodlands provide excellent habitat for a wide variety of species, often including reptiles and amphibians. These habitats are expected to provide suitable habitat for a diverse assemblage of semi-aquatic and terrestrial wildlife species. A variety of amphibian and reptile species, including Pacific chorus frog (*Pseudacris regilla*), bullfrog (*Rana catesbiana*), and common garter snake (*Thamnophis sirtalis*), were observed or are to be expected to frequent or benefit from the riparian habitat onsite. Riparian plant communities are an important component of ecosystems found along stream channels. Trees help to shade the streams, keeping water temperatures low. They also provide important nesting and foraging habitat for songbirds, while the roots help hold the soil and provide in-stream cover for aquatic species. As noted above, one sensitive species that has been documented as occurring in the riparian area along Nipomo Creek is California red-legged frog.

4.3.2 Regulatory Setting

4.3.2.1 Federal Policies and Regulations

Section 404 of the Clean Water Act of 1977

Pursuant to §404 of the Clean Water Act (33 United States Code [USC] 1344), the U.S. Army Corps of Engineers (USACE) is responsible for the issuance of permits for the placement of dredged or fill material into "Waters of the United States." As defined by USACE at 33 CFR 328.3(a)(parts 1-6), the following summarizes Waters of the United States:

> *"Those waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; tributaries and impoundments to such waters; all interstate waters including interstate wetlands; and territorial seas."*

Waters of the United States are typically identified by the presence of an Ordinary High Water Mark (OHWM) and connectivity to traditional navigable waters or other jurisdictional features. If a project would result in dredge or fill of USACE jurisdictional waters, the project would be subject to USACE review under §404 of the Clean Water Act. Based on the site characteristics, the proposed construction of recreation facilities would not be subject to §404 of the Clean Water Act.

Section 401 of the Clean Water Act of 1977

Section 401 of the Clean Water Act and its provisions ensure that federally permitted activities comply with the federal Clean Water Act and state water quality laws. Section 401 is implemented through a review process that is conducted by the Regional Water Quality Control Board (RWQCB), and is triggered by the §404 permitting process. The RWQCB certifies via the §401 process that a proposed project complies with applicable effluent limitations, water quality standards, and other conditions of California law. Evaluating the effects of the proposed project on both water quality and quantity falls under the jurisdiction of the RWQCB. Based on the site characteristics, the proposed construction of recreation facilities would not be subject to §401 of the Clean Water Act.

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) of 1973 provides legislation to protect federally-listed plant and animal species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with the U.S. Fish and Wildlife Service (USFWS) or National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) to determine the extent of impact to a particular species. If USFWS or NOAA Fisheries determine that impacts to a federally-listed species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. USFWS and NOAA Fisheries also regulate activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species. The proposed construction of recreation facilities is not expected to affect any species protected by the ESA; therefore, coordination with USFWS or NOAA Fisheries is not necessary.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by the USFWS, and potential impacts to species protected under the MBTA are evaluated by the USFWS in consultation with other federal agencies. The proposed construction of recreation facilities has potential to impact nesting bird species that are protected by the MBTA. Pre-disturbance nesting bird surveys are recommended to avoid impacts to nesting birds.

4.3.2.2 State Policies and Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) ensures legal protection for plants listed as rare or endangered, and wildlife species formally listed as endangered or threatened, and also maintains a list of SSC. SSC status is assigned to species that have limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, the CDFW is empowered to review projects for their potential to impact special-status species and their habitats. Under CESA, CDFW reserves the right to request the replacement of lost habitat that is considered important to the continued existence to CESA protected species. The project is not anticipated to affect any species listed under the CESA; however, several SSC species could be affected by the project including Monterey dusky-footed woodrat (*Neotoma fuscipes luciana*), silvery legless lizard, and Coast horned lizard. Avoidance measures are recommended to avoid any adverse affects on SSC species.

California Fish and Game Code

California Fish and Game Code §3511 includes provisions to protect Fully Protected species, such as: (1) prohibiting take or possession “at any time” of the species listed in the statute, with few exceptions; (2) stating that “no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to “take” the species; and (3) stating that no previously issued permits or licenses for take of the species “shall have any force or effect” for authorizing take or possession. The CDFW is unable to authorize incidental take of “fully protected” species when activities are proposed in areas inhabited by those species. §§3503 and 3503.5 of the Fish and Game Code state that it is unlawful to take, possess, or destroy the nest or eggs of any bird, with occasional exceptions. In addition, §3513 states that it is unlawful to take or possess any migratory bird as designated in the MBTA or any part of such migratory

birds except as provided by rules and regulations under provisions of the MBTA. CDFW also manages the California Native Plant Protection Act of 1977 (Fish and Game Code §1900, et seq.), which was enacted to identify, designate and, protect rare plants. In accordance with CDFW guidelines, California Native Plant Society (CNPS) 1B list plants are considered "rare" under the CESA, and are evaluated in CEQA documents.

Other Sections of the Fish and Game Code

Fully Protected species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW. Information on these species can be found within §3511 (birds), §4700 (mammals), §5050 (reptiles and amphibians), and §5515 (fish) of the Fish and Game Code.

Senate Bill 1334 Oak Woodlands Conservation

Under SB 1334, county governments are responsible for conserving oak woodlands within their jurisdiction. During the CEQA review process, SB 1334 requires county governments to determine if a proposed project would result in the conversion of oak woodland. If the County determines that the proposed project would result in the conversion of oak woodland, the County is mandated to require implementation of specified mitigation as outlined in an oak woodland management plan. In San Luis Obispo County, oak woodlands are defined as areas containing greater than 10% oak canopy cover. The County oak management plan defines conversion as cutting or removing 10% or more of the oak woodland canopy or removing more than 10 oak trees. The proposed project would result in the conversion of oak woodland; therefore, is subject to mitigation as mandated by SB1334 and the County oak management plan.

4.3.3 Thresholds of Significance

The significance of potential biological impacts is based on County thresholds, in accordance with Appendix G of the CEQA Guidelines. Biological impacts would be considered significant if the proposed project would:

a. Result in a loss of unique or special status species or their habitats;
b. Reduce the extent, diversity, or quality of native or other important vegetation;
c. Impact wetland or riparian habitat;
d. Introduce barriers to movement of resident or migratory fish or wildlife species, or factors, which could hinder the normal activities of wildlife.

4.3.4 Impact Assessment and Methodology

Impact assessment focused on identifying potential project-related impacts associated with implementation of the project, and was based on details presented within the project description. Identified impacts represent a reasonable worst case scenario based on the provided conceptual project plans. Potential impacts were expected to occur where proposed construction or development activities would result in temporary or permanent modification of sensitive communities or habitats occupied by special-status species. Impacts to biological resources within the study area were evaluated by determining the sensitivity, significance, or rarity of each resource that would be adversely affected by the proposed project, and thresholds of significance were applied to determine if the impact constituted a significant impact. The significance threshold may be different for each habitat or species and is based on the

resource's rarity or sensitivity and the level of impact that would result from the proposed project. Where potential project-related impacts to sensitive resources were identified, measures for avoiding or minimizing adverse effects to these resources were recommended.

4.3.5 Project Specific Impacts and Mitigation Measures

4.3.5.1 Land Use Ordinance Amendment

The proposed amendments do not include language that would specifically result in an adverse effect to biological resources. Any future development of the site may have adverse effects on special status species and habitats, depending on the location and type of development. Pursuant to the amendment, future development would require a Master Plan and issuance of a Conditional Use Permit (CUP), which would trigger CEQA and project-specific analysis of impacts to biological resources.

In order to ensure that future projects, such as the proposed Master Plan and CUP, address project-specific biological resource impacts, a planning area standard is recommended that requires the project applicant to avoid or minimize impacts to special status species and sensitive habits, and implement measures such as pre-construction surveys, biological monitoring, construction avoidance during wet season and nesting bird season, oak tree protection and replanting for impacted trees, habitat restoration, and coordination with appropriate regulatory agencies (refer to Chapter 4, Environmental Impacts Analysis, Exhibit A).

4.3.5.2 Conditional Use Permit

The proposed project will indirectly impact the riparian woodland along Nipomo Creek, which roughly follows the boundary between the 30-acre and 100-acre areas. Development of the 30 acre area would affect portions of coastal scrub habitat and individual coast live oak trees. The development of proposed trails and the emergency access drive would directly impact Nipomo, Carillo, and Adobe Creeks, and portions of the surrounding grasslands and fallow agriculture fields. No potentially occurring sensitive plant species were observed within the project area during field surveys.

Although considered unlikely, the proposed project has the potential to impact 14 sensitive wildlife species and migratory nesting birds, should they be present during construction. Direct impacts to these species could result from take (e.g., injury, death) via construction-related disturbances such as trampling or crushing from equipment or construction workers. Indirect impacts to the wildlife species could result from noise, harassment, or other disruption during construction activities or through modifications to the species' habitat. The project has been specifically designed to avoid and minimize impacts to the creek systems on the property, including through the utilization of free span bridges.

Short-term impacts are those associated with construction activities and a limited period of post-construction restoration. The proposed project would include grading, grubbing, vegetation clearing, and infrastructure improvements on the site in preparation of construction. Short-term impacts to wildlife may include take (e.g., injury, death) as a result of construction traffic (i.e., equipment, trucks, pedestrian) or harassment and disturbance resulting from elevated noise levels and habitat modification. Additionally, ground and tree nesting birds may be impacted during construction activities. Short-term impacts to plants and vegetation communities may occur as a result of trampling due to increased traffic, trimming for access purposes, or elimination of portions of some communities and individuals. Short-term impacts to Carillo Creek and Nipomo Creek will occur during the headcut repair of Carillo Creek and any dissipation needed to protect the western bank of Nipomo Creek.

The current condition of the site is such that human traffic (pedestrian and vehicular) is regular, with approximately 3,000 annual visitors. The proposed development will significantly alter the long-term use of the site to further encourage and invite regular visitor traffic at the site. In addition to a small complex of educational and administrative facilities, a system of nature trails will be established throughout the project site and open to the public. As such, it is expected that pedestrian traffic throughout the site will increase, possibly doubling to 6,000 annual visitors. This impact will likely result in long-term alterations to portions of the vegetation communities and may impede some wildlife presence on-site.

The following specific impacts were identified as having the potential to result from the proposed project, based on the thresholds discussed above.

Result in a loss of unique or special status species or their habitats

Construction-Related Impacts

One sensitive species, white-tailed kite, was documented as occurring on or near the proposed project site. There is the potential for 13 additional sensitive wildlife species and/or nesting birds to occur at the project site. The proposed project could result in direct impacts to American badger, pallid bat, California red-legged frogs, coast range newts, southern Pacific pond turtles, coast horned lizards, two-striped garter snakes, and silvery legless lizards if present during clearing and grading activities. Likewise, elevated noise levels, increased traffic and human activity, and construction-related disturbance (e.g., erosion and sedimentation into the riparian corridor) associated with implementation of the proposed project could result in indirect impacts to these species if they are present during construction.

The proposed project has the potential to impact sensitive birds and migratory nesting birds if construction activities occur during the nesting season (approximately February 1 through August 15). Activities associated with the proposed project (e.g., ground disturbance and vegetation removal) could impact nesting birds if their nests are located within or near the work area. Likewise, increased human activity and traffic, elevated noise levels, and operation of machinery could also impact nesting birds if nests are located within the vicinity of the project area.

BIO Impact 1 **Construction of the project would directly and/or indirectly affect special status species, including terrestrial, aquatic, and avian species, resulting in a significant, short-term impact.**

BIO/mm-1 *Prior to grading and construction within 100 feet of Nipomo Creek, Adobe Creek, or Carillo Creek, a qualified biologist shall conduct pre-construction surveys for sensitive amphibian and reptile species within all portions of the project site containing suitable habitat. The surveys shall include at least two nighttime surveys and one daytime survey immediately preceding construction. If any sensitive species are detected, the following actions shall occur:*

a. Any detected adults will be relocated to a nearby suitable aquatic habitat. The location shall be in suitable habitat not subject to disturbance or known threats to the species. Terrestrial habitat surrounding the proposed relocation site shall be as similar in type, aspect, and density to the location of the existing riparian corridor. Sensitive species, such as California red-legged frog, will only be

moved if prior approval has been granted by the USFWS (see d below).

b. *A qualified biological monitor will be present during any clearing, grading, or creek activities. Additionally, a qualified biological monitor will be on-site during construction activities to ensure no sensitive species have entered the work area overnight or throughout the day (i.e., they will conduct a morning clearance survey and regular daily checks of the work areas).*

c. *The work areas will be clearly marked to ensure that no work occurs outside of the approved limits of disturbance (i.e., lathe and flagging, t-posts and yellow ropes, and temporary signage).*

d. *The qualified biologist will receive project-specific approvals from resource agencies prior to handling any wildlife species, especially any sensitive species.*

e. *Speed limits shall be restricted to 15 mph.*

f. *Work will occur only during daylight hours.*

BIO/mm-2 *Upon application for construction permits, the following measures shall be included on applicable plans in order to avoid erosion and sedimentation impacts to the creeks and water quality:*

a. *Construction should be limited to the typical dry season (April 15 to October 15).*

b. *If work must occur during the rainy season, the applicant shall install adequate erosion and sedimentation controls to prevent any sediment-laden run-off from entering Nipomo Creek.*

c. *Upon completion of construction, disturbed areas will be stabilized or vegetated as detailed in the project's re-vegetation plan.*

BIO/mm-3 *A qualified biologist shall conduct a pre-construction survey within 30 days prior to the onset of construction activities within all potentially impacted areas of suitable badger habitat (grasslands and agricultural fields). If badger dens are discovered, they will be inspected to determine if they are currently occupied. If dens are discovered and are inactive, they will be excavated to prevent re-occupation prior to construction. If badgers are found during their breeding and rearing season (February to July), these dens shall be avoided with an appropriate buffer to protect them from construction activities. If badgers are found outside of their breeding period, CDFW will be contacted regarding the accepted approach to exclude and excavate the den prior to equipment and other ground disturbing activity on the site.*

BIO/mm-4 *All work shall be avoided during the nesting bird season (approximately February 1 through August 15), including ground and tree-nesting birds. If any construction activities are scheduled to occur during the nesting season,*

pre-construction bird surveys shall be conducted by a qualified biologist. The pre-construction bird surveys shall be conducted within 250 feet of any proposed construction activity within both the 30-acre and 100-acre areas. The surveys shall be conducted no more than 1 week prior to the scheduled onset of construction activities.

If nesting bird species are observed within 250 feet of the construction area during the surveys, the biologist shall determine the appropriate exclusion zone for the specific species. A buffer of 250 feet shall be maintained around any nesting raptors. The nesting bird exclusion zones shall be completely avoided until the qualified biologist determines that the young have successfully fledged. A qualified biologist shall conduct periodic site inspections to ensure that the exclusion zone is maintained and to monitor the nesting progression. In the event that sensitive bird species are discovered, the USFWS and/or CDFW will be contacted to determine the appropriate protective measures prior to any construction beginning.

If construction activities must occur within 250 feet of a nesting raptor nest, a qualified biologist shall be consulted to determine if the buffer can be reduced. If, in the opinion of the qualified biologist, the buffer cannot be safely reduced, a full-time avian monitor shall be present during all construction activities occurring within the established buffer to ensure no impacts occur. The avian monitor will have the authority to halt or re-direct work if raptors show signs of disturbance.

Residual Impacts

Based on the results of the biological surveys conducted for the project, mitigation was identified to ensure that no special-status specie are present prior to construction. Mitigation measures include procedures for species identification and protection. Based on incorporation of mitigation measures identified above, residual impacts would be *less than significant with mitigation (Class II).*

Operational Impacts

In the long term, operation of the project would increase the amount of human activity in the immediate area, including the 100-acre portion to remain in open space and for trail use, which may affect wildlife behavior. The applicant proposes several design features and components of the project that aim to preserve the cultural, historical, and environmental resources present at the site to the extent feasible, including: on-site storm water management, use of recycled materials, native and drought-tolerant landscaping, and on-site wastewater treatment. Additionally, a significant component of the proposed project is the riparian restoration effort being implemented in conjunction with the County and Land Conservancy of San Luis Obispo County. It is also anticipated that the actions proposed to resolve the headcut on Carillo Creek will improve the adjacent habitat communities and reduce erosion and sedimentation into Nipomo Creek. Based on the design of the project, general avoidance of sensitive habitats, and restoration of sensitive habitat, the project would have a *less than significant impact (Class III)* on special-status species and their habitat.

Reduce the extent, diversity, or quality of native or other important vegetation

The applicant proposes to remove one mature locust tree; all other trees, including sycamore, cypress, and coast live oak, would remain onsite. Eight coast live oak trees are located in close

proximity to the proposed Chumash interpretive area within the 30-acre portion of the project site. Actions potentially within the dripline of mature oak trees include ground disturbance and construction of a pedestrian path and low stone wall. The County's standard mitigation ratio for impacts to mature oak trees is 2:1. The proposed landscape plan includes the planting of 23 5-gallon coast live oak trees onsite, which would mitigate any impacts resulting from potential disturbance of existing oak trees, and would exceed the standard 2:1 replacement ratio.

In the long-term, implementation of the project would not adversely affect Land Conservancy and County restoration efforts. Existing agricultural roads, and the proposed emergency access drive and trails on the 100-acre portion of the site were designed in consultation with the County to ensure existing and future restoration and mitigation efforts would not be adversely affected.

BIO Impact 2 **Project construction activities have the potential to result in indirect impacts to eight mature coast live oak trees, resulting in a significant, short-term and long-term impact.**

BIO/mm-5 *All existing oak trees to remain on-site that are within 50 feet of construction or grading activities shall be marked for protection (e.g., with flagging) and their root zone fenced prior to any grading or site grubbing. The outer edge of the tree root zone to be fenced will be outside of the canopy half the distance as measured between the tree trunk and outer edge of the canopy (i.e., 1.5 times the distance from the trunk to the drip line of the tree). Grading, utility trenching, compaction of soil, or placement of fill shall be avoided within these fenced areas to the maximum extent feasible. If grading, compaction, or placement of fill in the root zone of an existing oak tree cannot be avoided, retaining walls may be constructed to minimize cut and fill impacts to existing oak trees. Care shall be taken to avoid surface roots within the top 18 inches of soil. If any roots must be removed or exposed, they shall be cleanly cut and not left exposed above the ground surface.*

BIO/mm-6 *All oak trees identified to remain shall not be removed, unless otherwise regulated by County LUO §22.56.020.A.4 (Tree Removal Permit Required, Zoning Clearance Exemption for trees in a hazardous condition). Unless previously approved by the County, the following activities are not allowed within the root zone of existing or newly planted oak trees:*

a. year-round irrigation (no summer watering, unless "establishing" new tree or native compatible plant(s) for up to 3 years);

b. grading (includes cutting and filling of material);

c. compaction (e.g., regular use of vehicles);

d. placement of impermeable surfaces (e.g., pavement); or,

e. disturbance of soil that impacts roots (e.g., tilling).

BIO/mm-7 *The trimming of oaks can be detrimental and shall be minimized as follows:*

a. removal of larger lower branches should be minimized to:

i. avoid making tree top heavy and more susceptible to "blow-overs;"

ii. reduce having larger limb cuts that take longer to heal and are much more susceptible to disease and infestation;

iii. retain the wildlife that is found only in the lower branches;

iv. retain shade to keep summer temperatures cooler (retains higher soil moisture, greater passive solar potential, provides better conditions for oak seedling volunteers); and,

v. retain the natural shape of the tree.

b. The amount of trimming (roots or canopy) done in any one season should be limited as much as possible to limit tree stress/shock (10% or less is best, 25% maximum).

c. Excessive and careless trimming not only reduces the potential life of the tree, but can also reduce property values if the tree dies prematurely or has an unnatural appearance. If trimming is necessary, the applicant shall either use a skilled arborist or apply accepted arborist's techniques when removing limbs.

d. Unless a hazardous or unsafe situation exists, trimming of deciduous species shall be done only during the winter.

e. Smaller oak trees (smaller than five inches in diameter at four feet above the ground) within the project area are considered to be of high importance, and when possible, shall be given similar consideration as larger trees.

BIO/mm-8 *Newly planted oak trees shall be maintained until successfully established as determined by a qualified professional. This shall include protection (e.g., tree shelters, caging) from animals (e.g., deer, rodents) and adequate watering (e.g., drip-irrigation system). During the timeframe when the oaks are being established on the 30-acre area, weed removal shall occur as follows:*

~~*a. no herbicides shall be used;*~~

a. installation of either 1) a securely staked "weed mat" (covering at least a 3-foot radius from center of plant), or 2) hand removal of weeds (covering at least a 3-foot radius from center of plant) and use of weed-free mulch (at least 3 inches deep, 3-foot radius) with regular replenishment, shall be completed for each new plant. If the hand removal weeding option is selected it shall be kept up on a regular basis (at least once in late spring [April] and once in early winter [December]).

b. Watering should be controlled so only enough is used to initially establish the tree, and reducing to zero over a 3-year period.

c. If possible, planting during the warmest, driest months (June through September) shall be avoided. In addition, standard planting procedures (e.g., planting tablets, initial deep watering) shall be used.

Once oak trees have been planted and prior to final inspection of building permits, the applicant shall retain a qualified individual (e.g., landscape contractor, arborist, nurseryman, botanist) to prepare a letter stating when the above planting occurred, what was planted and all measures implemented to improve the long-term success of these trees. This letter shall be submitted to the County Environmental Coordinator.

To guarantee the success of the new oak trees, the applicant shall retain a qualified individual (e.g., arborist, landscape architect/ contractor, nurseryman) to monitor the new trees' survivability and vigor until the trees are successfully established, and prepare monitoring reports, on an annual basis, for no less than 7 years. Based on the submittal of the initial planting letter, the first report shall be submitted to the County Environmental Coordinator 1 year after the initial planting and, thereafter, on an annual basis until the monitor, in consultation with the County, has determined that the initially-required vegetation is successfully established (for oak woodlands, no less than 7 years). Additional monitoring will be necessary if initially-required vegetation is not considered successfully established. The applicant, and successors-in-interest, agrees to complete any necessary remedial measures identified in the report(s) to maintain the population of initially planted vegetation and approved by the Environmental Coordinator.

Residual Impacts

Implementation of the project would not require the removal of any native or important vegetation, including oak trees. The proposed landscape plan includes oak trees and native vegetation, consistent with the landscape. Identified mitigation includes protection measures to avoid inadvertent impacts during construction and maintenance of oak trees to be planted. Based on incorporation of mitigation measures identified above, residual impacts would be *less than significant with mitigation (Class II).*

Impact Wetland or Riparian Habitat

The proposed project will result in disturbance to a small portion of Nipomo Creek, where the bridge will be constructed along the emergency access drive. The proposed bridge design would minimize impacts to riparian habitat and wetlands by utilizing a railroad flatcar that would span the creek and avoid the need for construction activities within the creek channel. The location of the crossing would not require riparian vegetation removal; however trimming may be necessary. Grading and construction activities may result in sedimentation and run-off into Nipomo Creek. The western bank of Nipomo Creek at this location may be permanently impacted by installation of rip rap or other dissipation measures. This dissipation may be needed in order to avoid erosion to the western bank where Carillo Creek enters Nipomo Creek.

The project includes a 0.36-acre riparian restoration effort being implemented in conjunction with the County and Land Conservancy of San Luis Obispo County. The actions proposed to resolve the headcut on Carillo Creek will improve the adjacent habitat communities and reduce erosion and sedimentation into Nipomo Creek, which would have a beneficial effect on wetland and riparian habitat.

BIO Impact 3 **Development of the emergency access road and bridge over Nipomo Creek would result in disturbance of riparian habitat and/or wetland areas adjacent to the creek, resulting in significant short- and long-term impacts.**

BIO/mm-9 *Upon application for construction permits for the emergency access drive, the following measures shall be incorporated into project plans:*

a. *Disturbance shall be minimized to what is necessary to safely install the emergency access bridge over Nipomo Creek.*

b. *Appropriate exclusion and erosion control measures shall be installed and maintained during construction activities to minimize sedimentation into the creek and impacts to sensitive habitat.*

c. *Appropriate permanent sedimentation and erosion control structures shall be included in the bridge design in order to minimize long-term impacts associated with vehicular traffic near the creek (e.g., sedimentation and erosion into the creek due to increased runoff associated with soil compaction and/or installation of impermeable surfaces).*

d. *The applicant shall restore and revegetate any disturbed areas along the access bridge in order to stabilize the streambank.*

BIO/mm-10 *Prior to work within creek channels, the applicant shall coordinate with the appropriate regulatory agencies in order to obtain permits prior to the start of construction. These agencies are likely to include: USACE, USFWS, CDFW, and RWQCB.*

Residual Impacts

The proposed project includes actions within and adjacent to wetland and riparian habitat. The site proposed for the bridge crossing, and trail pedestrian bridges, would avoid disturbance within the bed and bank of the creeks, and vegetation removal to the maximum extent feasible while achieving the crossing. Based on incorporation of mitigation measures identified above, residual impacts would be *less than significant with mitigation (Class II).*

Introduce barriers to movement of resident or migratory fish or wildlife species, or factors, which could hinder the normal activities of wildlife

Construction of the proposed project has the potential to impact resident fish and wildlife species as a result of elevated noise levels and operation of machinery during construction activities. The project could also impact migratory nesting birds if construction activities occur during the nesting season (approximately February 1 through August 15) (refer to BIO Impact 1). The mitigation measures identified above would reduce potential construction-related impacts to less than significant through water quality protection and species avoidance and protection measures (refer to BIO/mm-1).

Long-term operational impacts associated with increased human activity, noise, light, and traffic may occur. Project design details would mitigate the potential for long-term daytime and nighttime hindrances to the normal activities of wildlife, including the use of existing agricultural

roads as trails, protection and enhancement of on-site riparian, open space and agricultural uses, and exterior light standards. Although additional human traffic would be present at the project site, users would be directed to remain on designated trails, which would provide educational information regarding the site's natural resources and the consequences of human interaction with the land. Based on the design of the project, long-term impacts to wildlife would be *less than significant (Class III)*.

4.3.6 Cumulative Impacts

Construction-related disturbance to vegetation and wildlife on the project site will cause a shift in the overall structure of suitable habitat present. This otherwise temporary impact will be sustained by the significant alteration to the land use within the survey area. Thus, the short-term and long-term impacts associated with this project will cumulatively result in a significant change to the habitat structure, vegetation communities, and wildlife present on site. However, existing open space, riparian and agricultural uses at the project site would be protected and enhanced by project restoration activities. At this time, no other projects are known that would add to cumulative impacts as a result of this project.

The specific impacts resulting from the proposed project identified above would be mitigated to a less than significant level, and the project would not contribute to cumulatively significant impacts. Cumulative impacts would be *less than significant (Class III)*. No additional mitigation is required.