

C. BIOLOGICAL RESOURCES

This section describes the biological resources found within the project site. The information presented below is a compilation of botanical, wildlife, and wetland assessment data gathered in the field and from review of information from federal, state, and local resource agencies, and previous biological surveys prepared for portions of the site by other consultants. Morro Group biologists conducted field surveys in January and April of 2006; July, August, and September of 2007; and, April, June, and July 2008. During the 2007 surveys, Morro Group also prepared a *Wetland Assessment* of the project site, which is found in Appendix B. Previous biological surveys and documents reviewed or used in preparation of this section include:

- *Focused Pismo Clarkia Survey Letter of Findings*; David Wolff Environmental, June 17, 2004.
- *Laetitia Winery and Vineyard Expansion Project Biological and Wetland Assessment*; Rincon Consultants, Inc., May 4, 2001.

Morro Group biologists conducted a peer review of the reports, which are available for review at the County of San Luis Obispo Department of Planning and Building.

1. Existing Conditions

The site consists of approximately 1,910 acres of gently to steeply sloping topography, with elevations ranging from approximately 230 feet near Highway 101 to over 1,190 feet in the northeast corner of the project site. Los Berros Creek is located along the southeastern property boundary. A majority of the site is an active vineyard, with undeveloped areas dominated by annual grasslands, coastal scrub, and oak woodland (refer to Figure V.C.-1.1 through 1.3). A total of 13 drainages are located within the property, ten of which are mapped as blue-line features on the United States Geological Surveys (USGS) Oceano quadrangle. All of these drainages support annual grassland, freshwater marsh, or riparian habitats. To facilitate discussion in this section, these unnamed channels have been designated alphabetically as Drainages A through M. Drainages A through G, K, and L are direct tributaries to Los Berros Creek. Drainages H, I, J, and M are tributaries to Drainage G.

According to the USGS *Soil Survey of San Luis Obispo County, California Coastal Part*, the mild Mediterranean climate of the area and coastal influence produce summer temperatures averaging 59.9 to 72.4 degrees Fahrenheit (°F), winter temperatures averaging 41.6 to 60.8 °F, and annual precipitation averaging 15.6 inches. The USGS Soil Survey maps 17 soil units occurring within the project site. Soil types present include clay, clay loam, sandy clay loam, shaly loam, and rock outcrops (refer to Section V.G., Agricultural Resources, Figure V.G.-1).

a. Plant Communities and Habitat Types

The project site supports the following plant communities and habitat types: agricultural land, annual grassland, coastal scrub, Central Coast cottonwood-sycamore riparian forest, Central Coast riparian scrub, freshwater marsh wetland, coast live oak woodland, and rock outcrop. These communities are interspersed to varying degrees within the project site and provide habitat for various wildlife species. Wildlife habitat on the project site is discussed in terms of the plant

communities present; however, many wildlife species are not restricted to a single community and may utilize various portions of the project site as forage areas or migration corridors on a seasonal or infrequent basis. Typical wildlife expected to utilize the project site include common species adapted to human and agricultural disturbance. The following is a detailed discussion of the plant communities observed in the study area and the wildlife species known to frequent these communities.

1) Agricultural Land

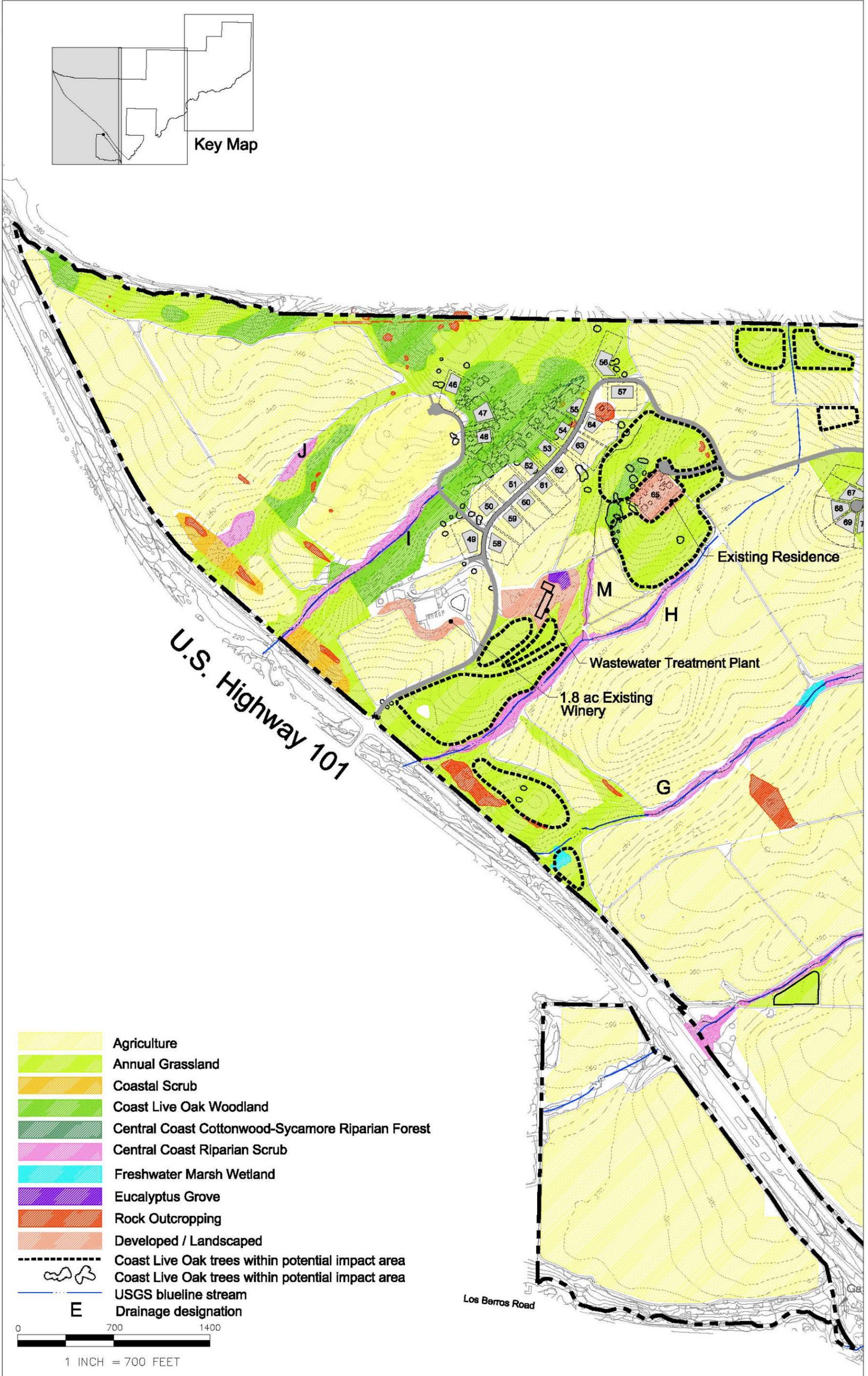
Areas of agricultural land consist primarily of vineyard plantings, but also include approximately 4.9 acres of lemon orchard, and 1.5 acres of lavender, and associated agricultural storage and maintenance areas. Agricultural areas are regularly tilled to control weedy species, and do not provide suitable habitat conditions for most native plant species. The project site contains ruderal (weedy) vegetation along the edges of agricultural areas, as well as along unpaved access roads, reservoirs, drainages, and in other areas of regular disturbance. Dominant species in disturbed agricultural land and associated ruderal areas includes nonnative grasses such as ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), and wild oats (*Avena* spp.), as well as various native species tolerant of disturbance such as California spineflower (*Mucronea californica*), telegraph weed (*Heterotheca grandiflora*), and pincushion plant (*Navarretia* sp.). The agricultural areas offer limited wildlife habitat value other than foraging opportunities when grapes are present.

2) Annual Grassland

Annual grasslands typically include a composition of both non-native and native grasses. Valley and southern coastal grasslands composed of mainly Mediterranean species are common in California and consist of a dense to sparse cover of annual grasses approximately eight to 20 inches high (Holland, 1986; Holland and Keil, 1995). Annual grassland communities are often associated with numerous species of wildflowers, especially in years of favorable rainfall. Germination occurs with the onset of late fall rains; and, growth, flowering, and seed-set occurs from winter through spring. The plants typically die during the summer–fall dry season. Annual grasslands provide foraging habitat for small mammals such as voles (*Microtus* sp.) and white-footed mice (*Peromyscus* spp.). Predators including white-tailed kite (*Elanus leucurus*), American kestrel (*Falco sparverius*), and Cooper’s hawk (*Accipiter cooperii*) utilize annual grassland for foraging habitat.

Annual grassland communities are common on the project site along the steeper slopes that have not been converted for agriculture. These areas are dominated by common annual species; however, sparse to dense stands of *Nassella* bunchgrass are sporadically distributed throughout the annual grasslands. These bunchgrass communities are isolated to areas that have not been subject to agricultural impacts, and could support rare annual wildflower species.

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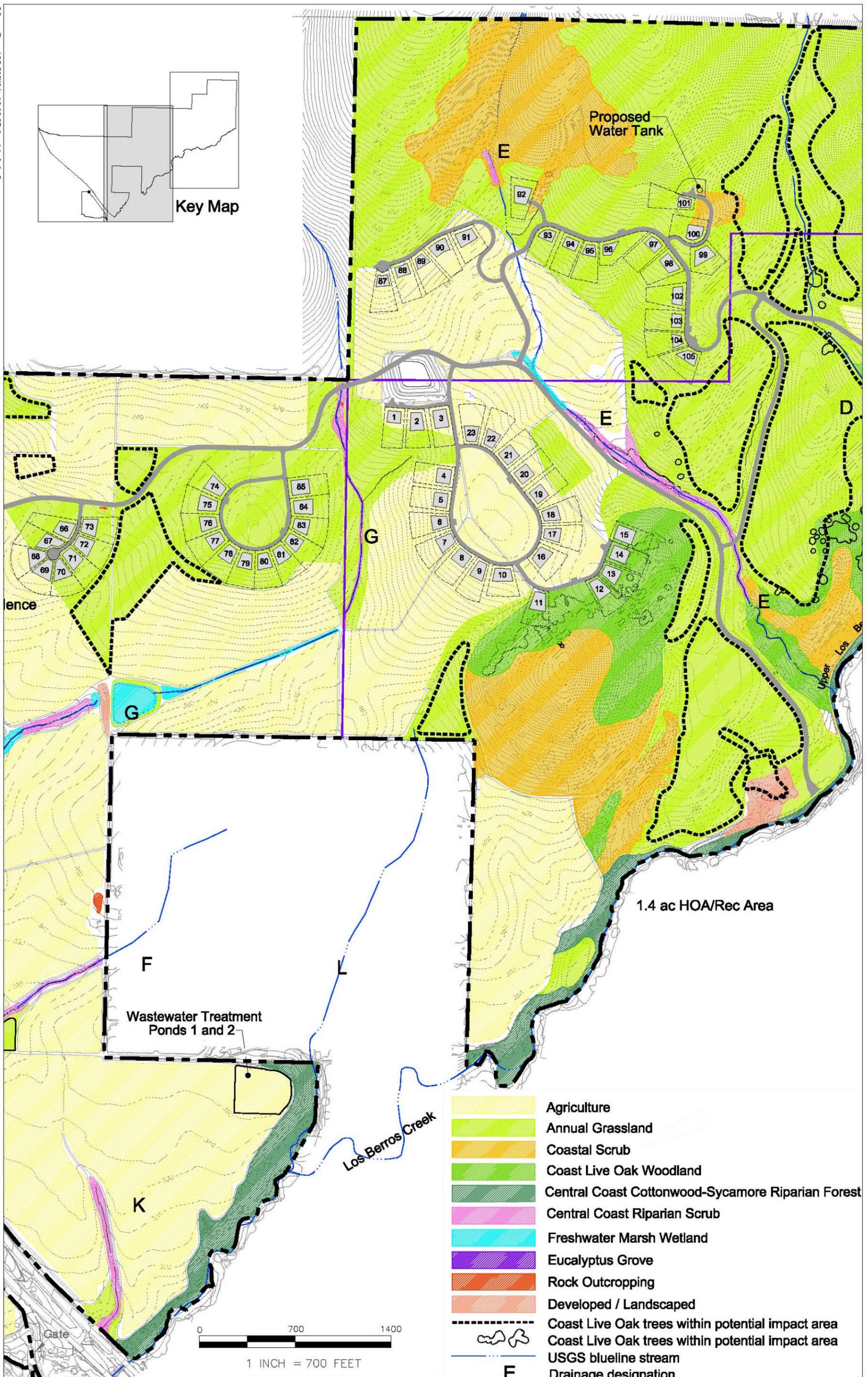
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Existing Habitats with Site Plan
FIGURE V.C.-1.1

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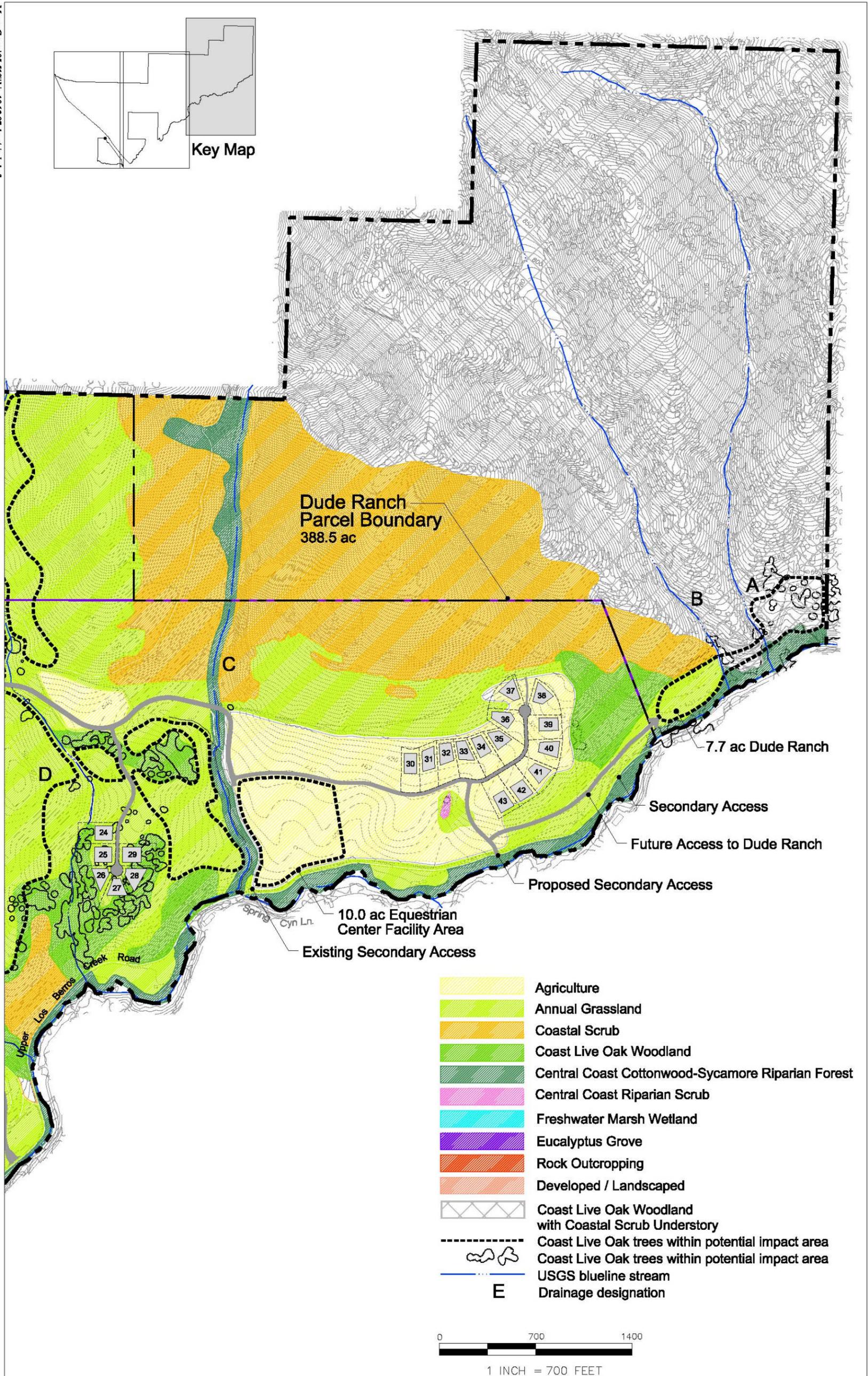
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Existing Habitats with Site Plan
FIGURE V.C.-1.2

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NORTH
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Existing Habitats with Site Plan
FIGURE V.C.-1.3

Back of Figure V.C.-1.3

3) Coastal Scrub

Coastal scrub communities are restricted to areas along the coast and extending inland for a few miles. Along the central coast of California, these communities may be sparsely to densely vegetated, and typically lack grassy openings (Holland, 1986). Coastal scrub typically grows on exposed south-facing slopes on a variety of substrates, including sandstone, diatomite, and serpentinite (Holland and Keil, 1995). Characteristic species include coyote brush (*Baccharis pilularis*), California sagebrush (*Artemisia californica*), bush monkeyflower (*Mimulus aurantiacus*), deerweed (*Lotus scoparius*), and sage (*Salvia* spp.). Coastal scrub provides habitat for numerous common wildlife species including brush rabbit (*Sylvilagus bachmanii*), California ground squirrel (*Spermophilus beecheyi*), American crow (*Corvus brachyrhynchos*), California thrasher (*Toxostoma redivivum*), and western fence lizard (*Sceloporus occidentalis*).

Coastal scrub communities are a common component in the northern and eastern portions of the site as oak woodland understory, and in gaps between oak woodland canopy cover; however, most of the coastal scrub on the project site is heavily grazed by managed goat herds. Relatively large areas of intact coastal scrub are located near proposed Lots 11 through 15, and within the future dude ranch area. These areas have not been impacted by agricultural development and have the potential to harbor rare coastal scrub species such as black-flowered figwort.

4) Central Coast Cottonwood-Sycamore Riparian Forest

Central coast cottonwood-sycamore riparian forest includes moderately closed broadleaved riparian forests dominated by western sycamore (*Platanus racemosa*) and Fremont cottonwood (*Populus fremontii* ssp. *fremontii*), with lesser amounts of coast live oak (*Quercus agrifolia*) (Holland 1986). The understory typically consists of dense thickets of shrubby willows (*Salix* spp.), coyote brush (*Baccharis pilularis*), and/or stinging nettle (*Urtica dioica*). These forests occur in floodplains of sub-perennial streams, usually with fairly coarse streambed substrate and seasonally variable depths to the water table. This forest gradually merges with arroyo willow (*Salix lasiolepis*) dominated types at lower elevations or along flatter stream reaches with finer-textured sediment and more constant depth to the water table (Holland, 1986).

Central coast cottonwood-sycamore riparian forest occurs on the project site within Los Berros Creek and Drainage C corridors. These areas are dominated by an open to dense overstory of western sycamore and coast live oaks. Cottonwoods are located within these areas; however, are not providing a dominant cover. The riparian habitat observed in Los Berros Creek and Drainage C (Adobe Canyon Creek) is best described by a combination of central coast cottonwood-sycamore and central coast live oak riparian forests. The riparian forest community provides habitat for resident and migratory bird species. The combination tree and shrub cover provides perching, foraging, and nesting habitat. These areas may also support shading and microclimate control for aquatic species when water is present.

5) Central Coast Riparian Scrub

Central coast riparian scrub consists of scrubby streamside thickets, varying from open to dense and is dominated by any of several willow species (Holland, 1986). The understory commonly supports species such as California blackberry (*Rubus ursinus*) and stinging nettle. Central coast riparian scrub occurs on relatively fine-grained sand and gravel bars that are close to

groundwater, at or near the mouths of most perennial and many intermittent streams of the South Coast Ranges. Riparian scrub communities provide habitat for numerous common and rare bird species including fly-catchers, vireos, wrens, and raptors.

The numerous drainages within the project site support sporadic to continuous stands of central coast riparian scrub. In the study area this community is dominated by arroyo willow (*Salix lasiolepis*) with occasional red willow (*Salix laevigata*) and coast live oak. The shrub layer in these areas is generally poorly developed but sporadic thickets of California blackberry and toyon (*Heteromeles arbutifolia*) are present. The riparian scrub corridors on the project site are surrounded by agricultural development and have an element of weedy species including bristly ox-tongue (*Picris echioides*) and hemlock in the under story.

6) Freshwater Marsh Wetland

Freshwater marsh (coastal and valley fresh water marsh) communities usually occur in nutrient-rich mineral soils that are saturated or inundated on a seasonal or permanent basis. These communities can occur in areas of slow-moving or stagnant shallow water along streams and drainages, or in areas where the low-permeability of soils results in the prolonged presence of surface water or saturated soils. Freshwater marsh is often indicative of waters of the U.S. and/or jurisdictional wetland habitat, both within Army Corps of Engineers (ACOE) jurisdiction. The project site was examined for areas with the potential to support wetland habitat, as defined by ACOE guidelines. This examination led to completion of a formal wetland delineation focusing on drainages within the project site (refer to Appendix B). The delineation identified jurisdictional wetland areas of riverine, lower intermittent streambeds (Cowardin et al., 1979) supporting vegetated streambeds and/or riparian habitat.

Freshwater marsh wetlands within the project site are associated with Los Berros Creek, several of the tributary drainages, and agricultural ponds. The dominant emergent plant species observed in the freshwater marsh areas were California bulrush (*Scirpus californicus*), broad-leaved cattail (*Typha latifolia*), creeping spikerush (*Eleocharis macrostachya*), and rushes (*Juncus* spp). The freshwater marsh wetlands on the site provide foraging and breeding habitat for a variety of wildlife species, including red-winged blackbirds, ducks, song sparrows, and common yellowthroats. In addition, California red-legged frogs, bullfrogs, Pacific tree frogs, and southwestern pond turtle often inhabit freshwater marsh areas.

7) Coast Live Oak Woodland

Coast live oak woodlands feature coast live oak as the dominant evergreen tree, which often reach 30 to 75 feet tall and establish dense canopies (Holland, 1986; Holland and Keil, 1995). The shrub layer is usually poorly developed, but may include species such as toyon (*Heteromeles arbutifolia*), sticky monkeyflower (*Mimulus aurantiacus*), gooseberry (*Ribes* spp.), poison oak (*Toxicodendron diversilobum*), and other shrubs. The herbaceous layer is continuous and dominated by species such as ripgut brome and other introduced grass species. Coast live oak woodlands typically grow on north-facing slopes and shaded ravines, intergrading with coastal scrub and chaparral communities on xeric (dry) sites and coast live oak forest or mixed evergreen forest on mesic (moist) sites (Holland, 1986). Coast live oak woodland and its understory provides habitat for a variety of wildlife species, including foraging habitat for

coyote, red fox (*Vulpes vulpes*), gray fox (*Urocyon cinereoargenteus*), mule deer (*Odocoileus hemionus*), and nesting and foraging habitat for raptors and a variety of perching birds.

On the project site, coast live oak woodlands are concentrated along the Los Berros Creek corridor, the northwestern corner of the property, and the northeastern corner of the property. Remnant occurrences of coast live oak trees are scattered throughout the central portion of the project site but are not dense enough to form woodland. The coast live oak woodlands on the project site support open to moderately dense stands of coast live oaks, interspersed with other disturbed agricultural land, annual grassland, and coastal scrub.

8) Rock Outcrop

Rock outcrops in coastal San Luis Obispo County can consist of a variety of rock and soils complexes. Generally, rock outcrops are portions of bedrock that are exposed on steep to very steep slopes. Due to the steepness and high percentage of rock, rock outcrops are poorly suited for agricultural or engineering purposes. Consequently, these areas tend to be exposed to limited disturbance and can harbor remnant populations of rare plants, and provide shelter habitat for various reptiles, small mammals, and birds.

According to the USGS *Soil Survey*, the rock outcrops on the project site consists of the Lithic Haploxerolls complex, 30 to 75 percent slopes. These rock outcrops consist of sandstone and are associated with sandstone derived soils that can provide habitat for rare plant species including Wells's manzanita (*Arctostaphylos wellsii*) and Indian Knob mountain balm (*Eriodictyon altissimum*).

b. Sensitive Biological Resources

A variety of sensitive habitats, plants, and wildlife species have recently or historically been known to occur within the vicinity of the project site. The ecological importance of the sensitive habitats within or adjacent to the project site are described below. In addition, various special-status species that are known or have potential to occur within or adjacent to the project site are identified in Tables V.C.-1 and V.C.-2.

1) Sensitive Communities

Sensitive communities include wetlands and other habitats listed by the California Department of Fish and Game (CDFG), the County of San Luis Obispo (County), or other resource agencies as meriting protection or further study due to their rarity or value. Of the seven plant communities previously identified as occurring within the project site, only coastal and valley fresh water marsh is considered sensitive by CDFG. However, central coast cottonwood-sycamore riparian forest and riparian scrub habitats are associated with jurisdictional waters of the U.S, and are often regulated by the Clean Water Act of 1972. In addition, the oak woodlands found on-site are protected under Senate Bill 1334 (Kuehl bill). The Kuehl bill mandates mitigation for impacted oak woodland and is administered by the county. Other sensitive habitats known to occur within the investigated USGS quadrangles include central fore dunes, central dune scrub, and central maritime chaparral. These communities are confined to specific coastal locations and are not present within the project site.

(a) Wetlands and Other Waters of the U.S.

Coastal and valley freshwater marsh and the riparian communities described above are often regulated by the ACOE as Waters of the U.S. under Section 404 of the Clean Water Act. Waters of the U.S. include special aquatic sites such as wetlands, and “other waters” that do not qualify as special aquatic sites. Wetlands are defined in the ACOE Wetlands Delineation Manual (Environmental Laboratory, 1987) as:

“Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

ACOE-defined wetlands are present if each of the following three criteria is observed: dominance by hydrophytic vegetation; presence of hydric soils; and, evidence of wetland hydrology. ACOE-defined “other waters” are jurisdictional areas that lack one or more of the three wetland criteria. Other waters may include lakes, rivers, streams, mudflats, ephemeral drainages, and sloughs.

The wetland delineation performed on the site found that Los Berros Creek and the tributary drainages contained jurisdictional wetlands and other waters. Generally, the drainages were characteristic of jurisdictional other waters; however, wetlands were identified in sporadic locations within the drainages and irrigation ponds. The wetlands associated with drainages on the project site support low to moderate functions and values characteristic of relatively small watersheds subjected to seasonal inundation.

(b) Coast Live Oak Woodlands

Oak woodland is considered a sensitive habitat in California and is protected by the Kuehl bill. Impacts to oak woodland will require mitigation according to County guidelines. County guidelines encourage project modifications to avoid or reduce impacts to oak woodland. If redesign of the project is not feasible, the County requires mitigation via implementation of an oak tree replacement and conservation program. The oak woodland replacement and conservation program allows an applicant to mitigate 50 percent of the impacts by replanting impacted oak trees. The remaining 50 percent of impacts can be mitigated by developing a conservation easement or contributing a monetary payment into a County-approved conservation program. Coast live oak woodland occurs on the project site in areas proposed for development and impacts to these woodlands would have to be mitigated per the county guidelines.

2) Sensitive Species

As discussed above, the plant communities that exist on the project site provide habitat for plant and animal species. Some of the species that may occupy the site are considered sensitive by regulatory agencies. For the purposes of this EIR, sensitive species are defined as plants and animals that are:

- Species afforded protection under the Federal Endangered Species Act (FESA) and/or California Endangered Species Act (CESA);
- Species proposed for listing under the FESA and/or CESA;
- Species afforded protection under sections of the California Fish and Game Code;
- Birds afforded protection under the Migratory Bird Treaty Act of 1918;
- Species considered either Federal Species of Concern or California Special Concern Species;
- Species that meet the definitions of rare or endangered species under CEQA;
- Plants considered sensitive by the California Native Plant Society (CNPS); and,
- Species considered sensitive by local resource groups/agencies or the scientific community.

(a) Survey Methods and Results

During the literature review portion of this study, Morro Group conducted a search of the CDFG California Natural Diversity Data Base (CNDDDB). The CNDDDB search generated a list of reported occurrences of sensitive plant and animal species within the Oceano and three adjoining USGS topographic quadrangles. The results of the CNDDDB search were reviewed to determine reported occurrences of various sensitive species in the general vicinity of the project site. The *Inventory of Rare and Endangered Plants of California* (CNPS, 2007) was reviewed to provide additional information on rare plants that are potentially present in the area. Natural Resource Conservation Service (NRCS) and County soil survey data, and previous Morro Group studies of the Arroyo Grande area were also reviewed to determine potential sensitive species presence and habitat suitability within the site.

Morro Group biologists conducted biological surveys in January and April of 2006; July, August, and September of 2007; and, April, June, and July 2008. The surveyors walked transects through non-agricultural areas proposed for development, recording all identifiable plant and animal species encountered, and documenting natural communities and habitats present on the project site. Riparian corridors and jurisdictional wetland boundaries were mapped with a Trimble Geo XT GPS data collector capable of sub-meter accuracy. David Wolff Environmental conducted focused Pismo Clarkia surveys on June 1, 2, and 4, 2004. Mr. Wolff surveyed areas that were not previously disturbed by agricultural practices and are proposed for development. Rincon Environmental Consultants conducted botanical surveys on the northwest portion of the property on December 20, 21, and 22, 2000; and, January 19, April 4, and June 8, 2001. The Rincon surveys covered the approximate locations of proposed Lots 46 through 85 and the associated roads; however, the survey did not cover the eastern portion of the property. The surveys conducted by Morro Group, Mr. Wolff, and Rincon were timed to coincide with the appropriate blooming periods of special-status plant species that have suitable habitat within the proposed project site and were sufficient to establish the presence/absence of special-status plant species.

The CNDDDB and CNPS reviews identified occurrence records for 53 plant and wildlife taxa that are considered sensitive by federal, state, or local agencies within the four USGS quadrangles. The name and legal status of each of these species are identified in Tables V.C.-1 and V.C.-2, as well as a general description of the habitat requirements for each species. The “potential for

occurrence” column in the tables identifies presence or absence of suitable habitat for each species within the site, and provides field survey results for each species. Of the 53 sensitive plant and animal species identified as occurring within the quadrangles, 14 plants and 11 animals were identified as potentially present due to the presence of suitable habitat on the site.

(b) Sensitive Plants

A total of 34 sensitive plant species were identified for consideration during the literature search; however, only 14 sensitive plant species were determined to have suitable habitat conditions within areas of the proposed project (refer to Table V.C.-1). These 14 species are described in greater detail in Appendix B, Sensitive Species Descriptions, and include:

- Santa Margarita manzanita
- Wells’ manzanita
- Marsh sandwort
- Miles’s milk-vetch
- Cambria morning-glory
- Obispo indian paintbrush
- Straight-awned spineflower
- California saw grass
- Dune larkspur
- Indian Knob mountainbalm
- San Luis Obispo County lupine
- Carmel Valley bush mallow
- Black-flowered figwort
- San Bernardino aster

The remaining 20 plant species were eliminated from consideration based on lack of suitable plant communities and/or soils on-site, and previous negative survey results reported by Rincon Consultants (Rincon, 2001) and David Wolff Environmental (DWE, 2004). No sensitive plant species were observed during these previous survey efforts. Survey efforts performed by Morro Group for this EIR occurred within the normal blooming period for the sensitive plant species that may occur on the property. None of the above mentioned special-status plant species were observed during the surveys; however, Jones’ mallow and club-haired mariposa lily were observed within the proposed project footprint. Both these species are included on the CNPS list 4.3, which is a “watch list” that indicates that these species have a limited distribution and are “not very rare in California.” Generally, species included on List 4 do not meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the CDFG Code (CNPS, 2008). However, CNPS recommends special considerations for List 4 species if the individuals are located near the periphery of the species range, in areas where the species is uncommon, or the species has sustained heavy losses in its locality. As proposed, development of the project would result in the removal of approximately 75 percent of the Jones’ mallow found on-site; consequently, this EIR provides mitigation measures to address impacts to this species.

c. Sensitive Wildlife

A total of 19 sensitive wildlife species were identified during the literature search as potentially present in the vicinity of the project site (refer to Table V.C.-2). Of these species, nine were eliminated from consideration based on lack of suitable habitat conditions on or adjacent to the site. The remaining ten sensitive wildlife species determined to have suitable habitat conditions within areas of the proposed project are discussed in Appendix B, Sensitive Species Descriptions, and include:

- Santa Margarita manzanita
- Cooper's hawk
- Sharp-shinned hawk
- western yellow-billed cuckoo
- Willow flycatcher
- White-tailed kite
- California saw grass
- South-central California coast steelhead
- southwestern pond turtle
- two-striped garter snake
- California red-legged frog
- Coast Range newt

Of these ten species Cooper's hawk, White-tailed kite, and California red-legged frog were observed on the property during the surveys. In addition, an individual pond turtle from the *Emydidae* family was observed basking on an irrigation line in an existing agricultural pond that is located between proposed Lots 1 through 3 and proposed Main Road 1. This individual took cover before the biologist could determine its specific epithet; however, it is likely that the individual was a southwestern pond turtle.

d. Critical Habitat Designations

Both South-central California coast steelhead and California red-legged frog have critical habitat designations within San Luis Obispo County. Los Berros Creek at the southern boundary of the project site supports suitable habitat and the primary constituent elements for steelhead. According to the *Final Critical Habitat Designations in Washington, Oregon, Idaho, and California for Endangered and Threatened Pacific Salmon and Steelhead*, National Marine Fisheries Service (NOAA Fisheries) has designated portions of Los Berros Creek as steelhead Critical Habitat. Steelhead was not observed during the biological surveys; however, in recent communications with Anthony Spina of NOAA Fisheries, Mr. Spina indicated that steelhead is present within the upper reaches of Los Berros Creek.

The project site is located within the proposed California red-legged frog Critical Habitat Unit 22. The Lopez Lake Unit 22 includes the watersheds forming tributaries to Arroyo Grande Creek, including Los Berros Creek. Unit 22 was proposed on September 8, 2000; however, is not included in the current final rule. The current final rule dated April 13, 2006, includes eight critical habitat units. According to the USFWS Federal Register and Final Rule dated April 13, 2006, the project site is not located within any of the eight San Luis Obispo County California red-legged frog Critical Habitat Units. A San Francisco-based environmental organization filed suit on December 19, 2007, challenging the final rule. Litigation is currently in progress; during preparation of this EIR, USFWS listed the April 13, 2006, final rule as "Active." Rincon conducted protocol surveys on the project site for California red-legged frog in October and November of 2000. The Rincon surveys identified nine California red-legged frogs centrally located in the property. These individuals were observed in areas proposed for improvements.

**TABLE V.C.-1
Sensitive Plant Species Potentially Occurring Within the Project Site**

Species Name	Habitat Requirements	Flowering Season	Status	Habitat Present or Absent	Rationale
<i>Agrostis hooveri</i> Hoover's bent grass	Stoloniferous herb. Occurs in chaparral, cismontane woodland; and valley and foothill grassland with sandy soils. Elevation 60-600 meters.	April - July	Fed: -- Calif: -- CNPS: List 1B.2	A	Nearest occurrence 1.6 miles northwest of the property. No sandy soils on project site. Species not observed during surveys.
<i>Arctostaphylos luciana</i> Santa Lucia manzanita	Shrub. Occurs in chaparral and cismontane woodland on shale soils. Elevation 350-850 meters.	February - March	Fed: -- Calif: -- CNPS: List 1B.2	A	Nearest occurrence 10.5 miles northwest of the property. Site elevation is too low. Species not observed during surveys.
<i>Arctostaphylos pilosula</i> Santa Margarita manzanita	Shrub. Occurs in closed coniferous forest, chaparral, and cismontane woodland on shale soils. Elevation 170-1100 meters	December - March	Fed: -- Calif: -- CNPS: List 1B.2	P	Nearest occurrence 8.1 miles northeast of the property. Suitable habitat in oak woodland. Species not observed during surveys.
<i>Arctostaphylos rudis</i> Sand mesa manzanita	Shrub. Occurs in chaparral and coastal scrub (sandy) in Lompoc and Nipomo area. Elevation 25-230 meters.	November - February	Fed: -- Calif: -- CNPS: List 1B.2	A	Nearest occurrence 0.3 mile south of the property on the Nipomo Mesa south of Los Berros Creek. No sandy soils within the project area. Species not observed during surveys.
<i>Arctostaphylos wellsii</i> Wells's manzanita	Shrub. Occurs in closed-cone coniferous forest, chaparral (sandstone soils). Elevation 30-400 meters.	December - April	Fed: -- Calif: -- CNPS: List 1B.1	P	Nearest occurrence immediately adjacent to the southeastern side of the property near Los Berros Canyon. Suitable habitat is present in vicinity of proposed dude ranch. Species not observed during surveys.
<i>Arenaria paludicola</i> Marsh sandwort	Perennial herb. Occurs in bogs and fens, marshes and swamps (freshwater). Elevation 3-170 meters.	March - August	Fed: FE Calif: SE CNPS: List 1B.1	P	Nearest occurrence 2.3 miles southeast of the property within Black Lake Canyon. Suitable habitat occurs within Los Berros Creek and Drainages. Species not observed during surveys.
<i>Astragalus didymocarpus</i> var. <i>milesianus</i> Miles' milk-vetch	Annual herb. Occurs in coastal scrub (clay). Elevation 20-90 meters.	March - June	Fed: -- Calif: -- CNPS: List 1B.2	P	Nearest occurrence 8.8 miles east of the property. Suitable habitat is present in areas of minimal agricultural impacts. Species not observed during surveys.

Species Name	Habitat Requirements	Flowering Season	Status	Habitat Present or Absent	Rationale
<i>Calochortus obispoensis</i> San Luis mariposa lily	Perennial herb. Occurs in chaparral, coastal scrub, valley and foothill grassland, often serpentinite. Elevation 75 -730 meters.	May - July	Fed: -- Calif: -- CNPS: List 1B.2	A	Nearest occurrence 4.4 miles northwest of the property. No serpentine present on the site. Species not observed during surveys.
<i>Calystegia subacaulis</i> ssp. <i>episcopalis</i> Cambria morningglory	Rhizomatous herb. Occurs in chaparral and cismontane woodland. Elevation 60-500 meters.	April - June	Fed: -- Calif: -- CNPS: List 1B.2	P	Nearest occurrence 11.4 miles north of the property. Suitable habitat is present in oak woodlands. Species not observed during surveys.
<i>Castilleja densiflora</i> ssp. <i>obispoensis</i> Obispo Indian paintbrush	Annual herb. Occurs in valley and foothill grassland. Elevation 10-400 meters.	March - May	Fed: -- Calif: -- CNPS: List 1B.2	P	Nearest occurrence 3.4 miles northwest of the property. Suitable habitat is present in areas of minimal agricultural impacts. Species not observed during surveys.
<i>Chorizanthe breweri</i> Brewer's spineflower	Annual herb. Occurs in closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub (serpentinite). Elevation 45-800 meters.	April - August	Fed: -- Calif: -- CNPS: List 1B.3	A	Nearest occurrence 8.1 miles northwest of the property. No serpentine soils on project site. Species not observed during surveys.
<i>Chorizanthe rectispina</i> Straight-awned spineflower	Annual herb. Occurs in chaparral, cismontane woodland and coastal scrub. Elevation 85-1035 meters.	April - July	Fed: -- Calif: -- CNPS: List 1B.3	P	Nearest occurrence 4.0 miles northwest of the property. Suitable habitat is present in oak woodland and coastal scrub. Species not observed during surveys.
<i>Cirsium loncholepis</i> La Graciosa thistle	Perennial herb. Occurs in coastal dunes, coastal scrub, marshes, and swamps (brackish, mesic). Elevation 4-220 meters.	May - August	Fed: FE Calif: ST CNPS: List 1B.1	A	Nearest occurrence 4.3 miles west of the property. No brackish wetlands or dune complex on property. Species not observed during surveys.
<i>Cirsium rhotophilum</i> Surf thistle	Perennial herb. Occurs in coastal bluff scrub and coastal dunes. Elevation 3-60 meters.	April - June	Fed: -- Calif: ST CNPS: List 1B.2	A	Nearest occurrence 4.4 miles northwest of the property. Site elevation is too high; no coastal dunes. Species not observed during surveys.
<i>Cladium californicum</i> California sawgrass	Rhizomatous herb. Occurs in meadows and seeps, and marshes and swamps (alkaline or freshwater). Elevation 60-600 meters.	June - September	Fed: -- Calif: -- CNPS: List 2.2	P	One known population occurs in USGS quadrangle for Oceano (CNPS 2007). Suitable habitat is present in wetland areas of minimal agricultural impacts. Species not observed during surveys.

Species Name	Habitat Requirements	Flowering Season	Status	Habitat Present or Absent	Rationale
<i>Clarkia speciosa</i> ssp. <i>immaculata</i> Pismo clarkia	Annual herb. Occurs in chaparral, cismontane woodland, and coastal scrub. Elevation 25-185 meters.	May – July	Fed: FE Calif: SR CNPS: List 1B.2	A	Nearest occurrence 1.68 miles south of the project site north of Black Lake Golf Course. Soils are not suitable for this species. Species not observed during focused surveys (D. Wolfe, 2004).
<i>Deinandra increscens</i> ssp. <i>foliosa</i> Leafy tarplant	Annual herb. Occurs in valley and foothill grasslands. Elevation 300 – 500 meters.	June - September	Fed: -- Calif: -- CNPS: List 1B.2	A	Nearest occurrence 4.38 miles to the northeast of the property. No suitable habitat; site elevation is too low. Species not observed during surveys.
<i>Delphinium parryi</i> ssp. <i>blochmaniae</i> Dune larkspur	Perennial herb. Occurs in chaparral (maritime) and coastal dunes (sandy and rocky soils). Elevation 0-200 meters.	April – May	Fed: -- Calif: -- CNPS: List 1B.2	P	Nearest occurrence located adjacent to the southern portion of the property between State Route 101 and Los Berros Creek. Rocky soils provide suitable habitat on the project site. Species not observed during surveys.
<i>Delphinium umbraculorum</i> Umbrella larkspur	Perennial herb. Occurs in cismontane woodland. Elevation 400 – 1600 meters.	April - June	Fed: -- Calif: -- CNPS: List 1B.3	A	Nearest occurrence 4.8 miles north of the property at Lopez Lake. No suitable habitat; site elevation is too high. Species not observed during surveys.
<i>Dithyrea maritima</i> Beach spectaclepod	Rhizomatous herb. Occurs in coastal dunes and coastal scrub (sandy). Elevation 3-50 meters.	March - May	Fed: -- Calif: ST CNPS: List 1B.1	A	Nearest occurrence 4.4 miles northwest of the property. Elevation of project site is too low. Species not observed during surveys.
<i>Dudleya abramsii</i> ssp. <i>murina</i> San Luis Obispo dudleya	Perennial herb. Occurs in chaparral, cismontane woodland, valley and foothill grassland (serpentine). Elevation 90-440 meters.	May - June	Fed: -- Calif: -- CNPS: List 1B.3	A	Nearest occurrence 18.5 miles northwest of the property at Linsey Ranch. No serpentine soils on the project site. Species not observed during surveys.
<i>Erigeron blochmaniae</i> Blochman's leafy daisy	Perennial rhizomatous herb. Occurs in coastal dunes and coastal scrub (sandy). Elevation 3-45 meters.	July – August	Fed: -- Calif: -- CNPS: List 1B.2	A	Nearest occurrence 1.8 miles west of the property on the Nipomo Mesa. Site elevation is too high; no sandy soils. Species not observed during surveys.
<i>Eriodictyon altissimum</i> Indian Knob mountainbalm	Evergreen shrub. Occurs in chaparral (maritime), cismontane woodland and coastal scrub (sandstone). Elevation 80-270 meters	March - June	Fed: FE Calif: SE CNPS: List 1B.1	P	Nearest occurrence 10.4 miles northwest of the property at Indian Knob. Suitable habitat is present in oak woodlands with minimal agricultural impacts. Species not observed during surveys.

Species Name	Habitat Requirements	Flowering Season	Status	Habitat Present or Absent	Rationale
<i>Fritilaria ojaiensis</i> Ojai fritillary	Bulbiferous herb. Occurs in broadleaved upland forest (mesic), chaparral and lower montane coniferous forest (rocky). Elevation 300-998 meters.	March - May	Fed: -- Calif: -- CNPS: List 1B.2	A	Nearest occurrence 8.3 miles northeast of the property. No suitable habitat; site elevation is too low. Species not observed during surveys.
<i>Horkelia cuneata</i> ssp. <i>puberula</i> Mesa horkelia	Perennial herb. Occurs in chaparral, cismontane woodland and coastal scrub (sandy soils). Elevation 70-810 meters.	February - September	Fed: -- Calif: -- CNPS: List 1B.1	A	Nearest occurrence 7.2 miles northwest of the property. No sandy soils on project site. Species not observed during surveys.
<i>Horkelia cuneata</i> ssp. <i>sericea</i> Kellogg's horkelia	Perennial herb. Occurs in closed-cone coniferous forest, chaparral (maritime), and coastal scrub (sandy or gravelly openings). Elevation 10-200 meters.	April - September	Fed: -- Calif: -- CNPS: List 1B.1	A	Nearest occurrence 1.7 miles south of the project site. No sandy soils on project site. Species not observed during surveys.
<i>Lupinus ludovicianus</i> San Luis Obispo County lupine	Perennial herb. Occurs in chaparral (margins and openings), cismontane woodland; and valley and foothill grassland (sandy and sandstone soils). Elevation 25-185 meters.	April - July	Fed: -- Calif: -- CNPS: List 1B.2	P	Nearest occurrence 4.2 miles east of the property adjacent to Huasna Road. Suitable habitat is present in areas of minimal agricultural impacts. Species not observed during surveys.
<i>Lupinus nipomensis</i> Nipomo Mesa lupine	Annual herb. Occurs in coastal dunes. Elevation 10-50 meters.	December - May	Fed: -- Calif: -- CNPS: List 1B.2	A	Nearest occurrence 3.5 miles southeast of the property. No coastal dunes on the project site. Species not observed during surveys.
<i>Malacothamnus palmeri</i> var. <i>involucratus</i> Carmel Valley bush mallow	Deciduous shrub. Occurs in chaparral, cismontane woodland and coastal scrub. Elevation 30-1100 meters.	May - August	Fed: -- Calif: -- CNPS: List 1B.2	P	Populations known to occur in San Luis Obispo USGS quadrangle (CNPS 2007). Coastal scrub and oak woodlands provide suitable habitat. Species not observed during surveys.
<i>Monardella crispera</i> Crisp monardella	Rhizomatous herb. Coastal dunes and coastal scrub (sandy). Elevation 10-120 meters.	April - August	Fed: -- Calif: -- CNPS: List 1B.2	A	Nearest occurrence 3.3 miles southwest of the property. No sandy soils on the project site. Species not observed during surveys.
<i>Monardella frutescens</i> San Luis Obispo monardella	Rhizomatous herb. Occurs in coastal dunes and coastal scrub (sandy). Elevation 10-200 meters.	May - September	Fed: -- Calif: -- CNPS: List 1B.2	A	Nearest occurrence 3.3 miles southwest of the property. No sandy soils or coastal dunes on the project site. Species not observed during surveys.

Species Name	Habitat Requirements	Flowering Season	Status	Habitat Present or Absent	Rationale
<i>Rorippa gambelii</i> Gambel's water cress	Rhizomatous herb. Occurs in marshes and swamps (freshwater or brackish). Elevation 3-50 meters.	April - September	Fed: FE Calif: ST CNPS: List 1B.1	A	Nearest occurrence approximately 2.8 miles southwest of the property located in Black Lake Canyon. Site elevation is too high. Species not observed during surveys.
<i>Scrophularia atrata</i> Black-flowered figwort	Perennial herb. Occurs in closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, and riparian scrub. Elevation 10-500 meters.	March - July	Fed: -- Calif: -- CNPS: List 1B.1	P	Nearest occurrence 6.1 miles northwest of the property. Suitable habitat is present in coastal and riparian scrub areas. Species not observed during surveys.
<i>Symphotrichum defoliatum</i> San Bernardino aster	Rhizomatous herb. Occurs in cismontane woodland, coastal scrub, and foothill grassland near ditches and springs. Elevation 2-2,040 meters.	July - November	Fed: -- Calif: -- CNPS: List 1B.2	P	Nearest occurrence 2.7 miles west of the property at the base of the Halcyon Road grade. Oak woodland and coastal scrub on site provides suitable habitat. Species not observed during surveys.
<p>Status Codes</p> <p>-- = No status</p> <p>Federal:</p> <p>FE = Federally Endangered</p> <p>FT = Federally Threatened</p> <p>State:</p> <p>R = Rare</p> <p>ST = State Threatened</p> <p>SE = State Endangered</p> <p>SR = State Rare</p> <p>California Native Plant Society (CNPS):</p> <p>List 1B = rare, threatened, or endangered in California and elsewhere.</p> <p>List 2 = rare, threatened, or endangered in California, but more common elsewhere.</p> <p>List 3 = plants that about which more information is needed.</p> <p>Threat Code:</p> <p>.1 = Seriously endangered I California (over 80% of occurrences threatened / high degree and immediacy of threat)</p> <p>.2 = Fairly endangered in California (20-80% occurrences threatened)</p> <p>.3 = Not very endangered I California (<20% of occurrences threatened or no current threats known)</p>					

General references: *Calflora*, 2005; *CNDDb*, 2007; *CNPS*, 2007; *CDFG*, 2004; *Tibor*, 2001; *Hickman*, 1993; *Munz* 1974.

**TABLE V.C.-2
Sensitive Wildlife Species Potentially Occurring Within the Project Site**

Species Name	Status	Habitat Requirements	Habitat Present or Absent	Rationale
Birds				
<i>Accipiter cooperii</i> Cooper's hawk	CSC	Deciduous riparian woodland habitat throughout California	P	No CNDDB documented occurrences. Los Berros Creek riparian corridor provides suitable habitat. Species observed hunting over annual grassland during biological surveys.
<i>Accipiter striatus</i> Sharp-shinned hawk	MBTA, CSC	(Nesting) ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats; prefers riparian areas, north-facing slopes, with plucking perches; nests usually within 275 feet of open water.	P	Nearest occurrence 3.4 miles southwest of the property on the Woodlands Development. Marginal foraging habitat may occur in oak woodlands within the project site; nesting habitat is unlikely due to the lack of a nearby water source. Species not observed during surveys.
<i>Charadrius alexandrinus nivosus</i> Western snowy plover	MBTA, FT, CSC	Occurs on sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting.	A	Nearest occurrence 4.0 miles to the west of the property and associated with the dune complex. No suitable nesting or foraging habitat occurs within the project site. Species not observed during surveys.
Class Aves Other migratory bird species (nesting)	MBTA	Annual grasslands, coastal scrub, and oak woodlands may provide nesting habitat.	P	Potential nesting habitat occurs throughout the project site. Several inactive nests observed during surveys.
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	MBTA, FC, CE	Occurs in forests and open riparian woodlands with thick understory. Nests in riparian areas with thick understory of blackberry, nettles, and/or wild grape.	P	Nearest occurrence 14.3 miles northwest of the property in San Luis Obispo. Suitable nesting and foraging habitat occurs within the Los Berros Creek riparian corridor. Species not observed during surveys.

Species Name	Status	Habitat Requirements	Habitat Present or Absent	Rationale
<i>Elanus leucurus</i> White-tailed kite	MBTA, CSC, FP	(Nesting) Rolling foothills/valley margins with oaks and river bottoms or marshes next to deciduous woodlands; forages in grasslands, meadows, or marshes close to isolated, dense-topped trees for nesting and perching.	P	CNDDDB documents the nearest occurrence near Chorro Creek in San Luis Obispo; however, Morro Group biologists have observed this species adjacent to the project site. Suitable foraging and nesting habitat occurs throughout the project site. Species not observed during the surveys.
<i>Falco mexicanus</i> Prairie falcon	MBTA, CSC	Occurs primarily in perennial grasslands, savannahs, and rangelands. Nests on sheltered ledges of cliffs. Not in coastal fog belt or coastline.	A	Occurrence information for this species is unknown. Site maybe too close to coastal fog belt. No suitable nesting habitat. Species not observed during surveys.
<i>Gymnogyps californianus</i> California condor	FE, SE	Occurs in open savannahs, grasslands, and foothill chaparral, in mountain ranges with moderate altitudes. Nest in deep canyons on rock walls with clefts.	A	Nearest occurrence 18.2 miles northeast of the property at the Hi Mountain Condor Area. Marginal foraging habitat occurs on the site. No suitable nesting habitat occurs on the site. Species not observed during surveys.
<i>Sternula antillarum browni</i> California least tern	FE, SE	Occurs on the coast from San Francisco south to northern Baja California. Nests on sand beaches, sparsely vegetated areas, flat substrates, alkaline flats, landfills, and paved areas.	A	Nearest occurrence approximately 6.59 miles southwest of the property at Oso Flaco Lake. No suitable foraging or nesting habitat occurs on the site. Species not observed during surveys.
Fishes				
<i>Eucyclogobius newberryi</i> Tidewater goby	FE, CSC	Occurs in brackish shallow lagoons and lower stream reaches where water is fairly still, but not stagnant.	A	Nearest occurrence 5.5 miles west of the property at the Arroyo Grande Creek Lagoon. No suitable aquatic habitat occurs within the project site. Species not observed during surveys.
<i>Oncorhynchus mykiss irideus</i> South-central California coast steelhead	FT, CSC	Occurs in optimally, clear, cool water with abundant in-stream cover, well-vegetated stream margins, relatively stable water flow, and a 1:1 pool-to-riffle ratio.	CH	Nearest occurrence 2.0 miles northwest of the property within Arroyo Grande Creek. Los Berros Creek is designated Steelhead Critical Habitat. Species not observed during surveys.

Species Name	Status	Habitat Requirements	Habitat Present or Absent	Rationale
Insects				
<i>Danaus plexippus</i> Monarch butterfly	SA	Occurs in coastal eucalyptus and Monterey cypress stands.	A	Nearest occurrence approximately 2.00 miles south of the property on the Nipomo Mesa. No suitable eucalyptus or cypress roosting habitat occurs within the project site. Species not observed during surveys.
Mammals				
<i>Taxidea taxus</i> American badger	CSC	Prefer friable soils, and relatively open, uncultivated ground, grasslands, savannas, and mountain meadows near timberline.	A	Nearest occurrence 3.6 miles northwest of the property. Unlikely due to widespread agricultural disturbance and rocky soils. Species not observed during surveys.
Reptiles				
<i>Actinemys marmorata pallida</i> Southwestern pond turtle	CSC	Occurs in quiet waters of ponds, lakes, streams, and marshes. Typically in the deepest parts with an abundance of basking sites.	P	Nearest occurrence 3.6 miles northwest of the property. Suitable habitat occurs in the various agricultural ponds. One individual observed in existing agricultural pond on-site.
<i>Phrynosoma coronatum frontale</i> Coast horned lizard	CSC	Found in a variety of habitats, and common in lowlands along sandy washes with scattered low bushes. Requires open areas, shrubs, and loose soil.	A	Nearest occurrence 2.6 miles north of the property. Drainages on-site lack sandy soils and adjacent washes with shrubs. Species not observed during surveys.
<i>Thamnophis hammondi</i> two-striped garter snake	CSC	Inhabits perennial and intermittent streams with rocky beds bordered by dense vegetation. May also utilizes stock ponds and other artificially-created aquatic habitats	P	CNDDDB does not document an occurrence within the USGS quadrangles; however, Morro Group biologists have observed this species in Arroyo Grande Creek approximately 4.0 miles northeast of the property.
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	FT, CSC	Frequents grassland, oak savanna, and edges of mixed woodland and lower elevation coniferous forest.	A	Nearest occurrence 4.8 miles north of the property at Lopez Lake. Unlikely due to the lack of uncultivated grasslands with temporary rain pools. Oak woodlands on-site are steep and rocky and do not have pools. Species not observed during surveys.

Species Name	Status	Habitat Requirements	Habitat Present or Absent	Rationale
<i>Rana aurora draytonii</i> California red-legged frog	FT, CSC	Found in lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11-20 weeks permanent water for larval development and needs access to aestivation habitat.	P	One occurrence located on the property near the Highway 1 entrance. Six other occurrences located within 0.61-mile around the property. On-site ponds and wet drainages provide habitat. Species observed by Rincon biologists during 2000 surveys.
<i>Spea hammondi</i> Western spadefoot	CSC	Occurs in grassland habitats primarily, but also in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and for laying eggs.	A	Nearest occurrence 6.6 miles south of the property. Grassland habitat is present; however no vernal pools for breeding have been identified on the project site. Species not observed during surveys.
<i>Taricha torosa torosa</i> Coast Range newt	CSC	Coastal drainages from Mendocino County to San Diego County. Resides in terrestrial habitats and migrates up to 1 Km to breed in slow moving streams, ponds, and reservoirs.	P	Nearest occurrence approximately 6.9 miles northeast. Suitable habitat occurs on the project site for this species. Species not observed during surveys.
<p>Status Codes</p> <p>Federal: FE = Federally Endangered FT = Federally Threatened FC = Federal Candidate MBTA = Federally Migratory Bird Treaty Act</p> <p>State: SE = California Endangered ST = California Threatened CSC = California Species of Special Concern FP = Fully Protected SA = CNDDDB Special Animal</p>			<p>Habitat: Presence/Absence Absent [A] means no further work is needed. Present [P] means general habitat is present and species could be present. Critical Habitat [CH] means that the project study area is located within a designated critical habitat unit, but does not mean that appropriate habitat is present.</p>	

General references: CNDDDB, 2007; Zeiner et al., 1988; Morro Group files.

2. Regulatory Setting

a. Federal Policies and Regulations

1) Section 404 of the Clean Water Act of 1977

Regulatory protection for water resources throughout the U.S. is under the jurisdiction of the ACOE. Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into Waters of the U.S. without formal consent from the ACOE. Waters of the U.S. includes Special Aquatic Sites (e.g., marine waters, tidal areas, stream channels, and wetlands). Impacts to biological resources are assessed as part of the 404 permitting process through consultation with the USFWS. Policies relating to the loss of aquatic habitats generally stress the need to compensate losses on at least an acre-for-acre (1:1) basis. Under Section 404, actions in Waters of the U.S. may be subject to either an individual permit or a general permit, or may be exempt from regulatory requirements. Some activities have been given blanket authorization under the provisions of a general permit through the Nationwide Permit system.

Project activities proposed within or adjacent to drainages on the project site fall under the jurisdiction of the ACOE and any impacts to jurisdictional areas would be regulated under Section 404 provisions.

2) 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 Section 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. Proposed project activities that have the potential to result in impacts to water quality and quantity would require certification by the RWQCB.

3) Federal Endangered Species Act of 1973

The Federal Endangered Species Act (FESA) 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 USFWS or 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 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 following five federally endangered or threatened species were determined to have suitable habitat conditions on the project site: marsh sandwort, Indian Knob mountainbalm, western yellow-billed cuckoo, South-central California coast steelhead, and California red-legged frog. In addition, the project site is located directly adjacent to Los Berros Creek, which is designated

federal critical habitat for South-central California coast steelhead. Project related activities would require coordination with USFWS and NOAA Fisheries to determine the potential for take of species that are protected under the FESA.

4) Migratory Bird Treaty Act of 1918

The federal Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to end the commercial trade in bird feathers popular in the latter part of the 1800's. This act is enforced by the USFWS, and potential impacts to species protected under this law are evaluated by the USFWS in consultation with the ACOE during 404 review. The MBTA protects the Cooper's hawk, white-tailed kite, and other nesting bird species that have the potential to occur on the project site.

b. State Policies and Regulations

1) California Endangered Species Act

The CESA ensures legal protection for plants listed as rare or endangered, and species of wildlife formally listed as endangered or threatened. The state law also lists California Special Concern species based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, the CDFG is empowered to review projects for their potential to impact state-listed species and California Special Concern species, and their habitats.

The project site and directly adjacent areas were determined to support suitable habitat for the following state endangered or threatened species: Cooper's hawk, sharp-shinned hawk, white-tailed kite, south-central California coast steelhead, southwestern pond turtle, two-striped garter snake, California red-legged frog, and Coast Range newt. Pursuant to CESA, project activities must be reviewed by the CDFG to determine the potential for impacts to these species.

2) Section 1602 of the Fish and Game Code

The CDFG is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the law requires any person, state or local government agency, or public utility proposing a project that may impact a river, stream, or lake to notify the CDFG before beginning the project. If the CDFG determines that the proposed project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration Agreement is required. A Streambed Alteration Agreement lists the CDFG conditions of approval relative to the proposed project, and serves as an agreement between an applicant and the CDFG for a term of not more than five years for the performance of activities subject to this section. A Streambed Alteration Agreement from the CDFG would be required prior to any direct or indirect impact to streambeds, banks, channels or associated riparian resources.

3) 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 CDFG. Information on these species can be found within Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section

5515 (fish) of the Fish and Game Code. The white-tailed kite is a Fully Protected species that was observed foraging over the project site.

4) 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 ten percent oak canopy cover. The County of San Luis Obispo oak management plan defines conversion as cutting or removing ten percent or more of the oak woodland canopy or removing more than ten 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.

3. **Thresholds of Significance**

The significance of potential biological impacts are based on thresholds identified within Appendix G of the CEQA Guidelines and the County CEQA Checklist, which provides the following thresholds for determining impact significance with respect to biological resources. Biological impacts would be considered significant if the proposed project would:

- Substantially affect a rare or endangered species;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act;
- Interfere substantially with the movement of any resident or migratory species of wildlife or with established native resident or migratory wildlife corridors;
- Conflict with any local policies or ordinances protecting biological resources;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan;
- Reduce the long term viability of native plant, fish, or wildlife populations;
- Reduce species diversity or numbers of species; and,
- Introduce invasive plant or animal species.

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 and preliminary grading plans for the tract improvements. 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.

5. Project-specific Impacts and Mitigation Measures

The following sections identify and discuss the biological impacts that could occur during and after construction of the proposed project. Sub-section 5(a) "Project-wide" identifies impacts that could occur during all phases of the project and includes mitigation measures that must be implemented throughout the duration of the project. Sub-sections 5(b), (c), and (d), identify impacts that are expected to occur as a result of construction of the proposed phases and provide references to the appropriate project-wide mitigation measures to off-set the specific activities impact.

a. Project-wide

The proposed project has potential to impact a variety of biological resources within and adjacent to the project site. General construction activities associated with the various phases of project implementation have the potential to directly impact riparian habitats, wetland habitats, and natural plant communities including oak woodlands, and special-status plant and animal species. Aquatic resources within and adjacent to the study area could also be indirectly impacted by erosion and sedimentation. Proposed residential, recreational, agricultural uses and fire protection buffers have potential to impact wildlife and riparian areas through fuel management, vegetation removal, increased human presence, and by increased storm water runoff containing pollutants. Such pollutants may include residual hydrocarbons, fertilizers, and other chemicals that are commonly used in residential and agricultural developments.

1) Jurisdictional Riparian and Wetland Habitat Impacts

Construction and future uses of the proposed project have the potential to cause direct and indirect impacts to riparian and wetland habitats associated with the on-site drainages and Los Berros Creek. Direct impacts would occur as a result of road, bridge, and culvert construction and use within or adjacent to existing drainages. Table V.C.-3 provides a summary of estimated acreages of direct impacts to jurisdictional areas. Impact quantities in Table V.C.-3 are based on conceptual project plans and preliminary grading plans, and represent a reasonable worst case scenario. Estimated impact quantities are not intended for project permitting purposes.

**TABLE V.C.-3
Estimated Impact Areas within ACOE and CDFG Jurisdiction**

Habitat	Total Area in sq. ft. (acres)	Permanent Impact Areas in sq. ft. (acres)	Temporary Impact Areas in sq. ft. (acres)
<i>ACOE Jurisdictional Areas</i>			
Wetlands	16,738 sq. ft (0.38 ac)	14,952 sq. ft (0.34 ac)	1,786 sq. ft (0.04 ac)
Other Waters	2,004 sq. ft (0.05 ac)	1,126 sq. ft (0.03 ac)	878 sq. ft (0.02 ac)
TOTAL ACOE IMPACT AREAS		16,078 sq. ft (0.37 ac)	2,664 sq. ft (0.06 ac)
<i>CDFG Jurisdictional Areas</i>			
	106,225 sq. ft (2.44 ac)	44,353 sq. ft (1.02 ac)	61,872 sq. ft (1.42 ac)

As discussed in Table V.C.-3, the proposed project includes constructing road crossings and other project elements within federal and state jurisdictional areas. Implementation of the current plans would directly impact jurisdictional areas in 14 locations. Table V.C.-4 summarizes the locations of the direct impacts to jurisdictional areas that may result from project implementation. Please note that unaffected drainages are not included in the table. Figure V.C.-2 provides a graphical representation of the anticipated impact areas.

**TABLE V.C.-4
Summary of Locations for Direct Impacts to Jurisdictional Areas**

Project Element	Drainage								
	A	B	C	D	E	F	G	I	
Future Development (Dude Ranch Access Road)	X	X							
Main Road 1 (Crossings E.2 and G.1)					X		X		
Main Road 2 (Crossings C.1, D.1, and E.3)			X	X	X				
Road L (Crossing E.1)					X				
Lot 92 Driveway					X				
Force Main Utilities for Sewage Treatment Facility						X	X		
Agriculture Replacement							X		
Road D (Access Residential Sub-cluster C)								X	
Lot 56								X	

BIO Impact 1 Construction of road crossings and other structures within jurisdictional drainages would directly impact riparian and wetland habitat quality within the site and downstream from the site.

BIO/mm-1 At the time of application for subdivision public improvement plans or grading permits, the applicant shall obtain all necessary permits, approvals, and authorizations from jurisdictional agencies. These may

include, but may not be limited to: (1) ACOE Section 404 Nationwide Permit or Individual Permit for impacts to ACOE jurisdictional wetlands or other waters; (2) RWQCB Section 401 Water Quality Certification for discharges in to “Waters of the U.S.” and/or “Waters of the State”; and (3) CDFG Section 1602 Streambed Alteration Agreement for activities within the tops of banks or outer edges of riparian canopies (whichever extends furthest from the streambeds) of drainages.

BIO/mm-2

Prior to approval of subdivision public improvement plans or grading permit issuance, the applicant shall provide funding for an environmental monitor for all measures requiring environmental mitigation to ensure compliance with County Conditions of Approval and EIR mitigation measures. The applicant shall obtain from a county-approved monitor a cost estimate, based on a county-approved work scope. The environmental monitor shall be under contract to the County of San Luis Obispo. Costs of the monitor and any county administrative fees shall be paid for by the applicant. The monitor shall be responsible for (1) ensuring that procedures for verifying compliance with environmental mitigations are followed; (2) lines of communication and reporting methods; (3) daily and weekly reporting of compliance; (4) construction crew training regarding environmentally sensitive areas; (5) authority to stop work; and (6) action to be taken in the event of non-compliance. Monitoring shall be at a frequency and duration determined by the affected natural resource agencies (e.g., ACOE, RWQCB, CDFG, USFWS, and the County of San Luis Obispo).

BIO/mm-3

At the time of application for subdivision improvement plans or grading permits, all riparian and wetland areas shall be shown on all construction plans. The riparian/wetland areas shown on grading plans shall be based on the field data collected as part of the EIR analysis. All riparian vegetation planned for removal shall be specified on construction plans. Except for activities requiring removal of riparian trees and associated understory vegetation that are specified on construction plans, all ground disturbances and vegetation removal shall be prohibited within a 20-foot setback from the outer edge of the riparian canopy of any drainage onsite. The construction plans shall clearly show the location of sturdy construction fence that delineates allowable site access and disturbance areas. The number of access routes, size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the project goal.

BIO/mm-4

At the time of application for subdivision improvement plans or grading permits, the following measure shall be shown on plans: During construction, to avoid erosion and downstream sedimentation, and to reduce impacts to aquatic species, no work shall occur during the rainy

season (October 15 through April 15) within 20-feet of the on-site drainages.

BIO/mm-5 At the time of application for subdivision improvement plans or grading permits, the following measure shall be shown on plans: During construction, equipment access and construction shall be conducted from the banks rather than from within drainages. No equipment or fill material shall be staged in or adjacent to any of the site drainages.

BIO/mm-6 At the time of application for subdivision improvement plans or grading permits, the applicant shall submit a Riparian Habitat Revegetation and Restoration Plan. The plan shall be prepared by a qualified individual familiar with riparian vegetation and be reviewed and approved by the County. The plan shall include but not be limited to the following elements:

- a. Identification of locations, amounts, size and types of plants to be replanted, as well as any other necessary components (e.g., temporary irrigation, amendments, etc.) to insure successful reestablishment.
- b. Quantification of impact areas and any required mitigation ratios for the impacted areas.
- c. A schedule and success criteria for a five year monitoring and reporting program that is structured to ensure the success of the restoration plan.
- d. Provide for the in-kind replacement of any native riparian trees that are removed or damaged on a 3:1 ratio (4:1 for oaks removed and 2:1 for oaks impacted).
- e. Provide for in-kind replacement of any native riparian understory and wetland vegetation (e.g., California blackberry, mugwort, California rose, rushes, cattails, or other species) that is removed, or damaged.
- f. Incorporate all measures recommended by jurisdictional agencies.

Planting according to the approved revegetation plan shall be completed prior to final inspection.

BIO/mm-7 Prior to final acceptance of subdivision improvements or construction permit completion, the applicant must retain a qualified biologist to conduct the five year revegetation monitoring program. The biologist shall supervise site preparation, timing, species utilized, planting installation, maintenance, monitoring, and reporting of the revegetation/restoration efforts.

BIO/mm-8 If on-site mitigation for permanent loss of riparian habitat is not feasible, an off-site riparian mitigation component shall be incorporated into the Revegetation and Restoration Plan, subject to review and approval by jurisdictional agencies. Plans for off-site mitigation shall include a

monitoring schedule and success criteria to ensure that any off-site restoration/enhancement efforts are successful.

Residual Impact With implementation of the above mitigation measures, direct impacts associated with degradation of onsite and downstream riparian and wetland areas would be considered *less than significant with mitigation, Class II*.

Indirect impacts consisting of sedimentation and water pollution would result from conversion of natural areas to agricultural or residential uses, increased livestock staging/feeding (e.g., equestrian facility), increased use of chemical fertilizers and pesticides, and drainage from paved roadways. Studies have shown that the use of riparian and grass buffers are effective at filtering sediment and pollution from run off generated on agricultural and livestock operations (Virginia, 2000). Use, maintenance, or staging of construction equipment in areas adjacent to drainages could also increase the risk of fuel spills or leaks into sensitive habitats during construction.

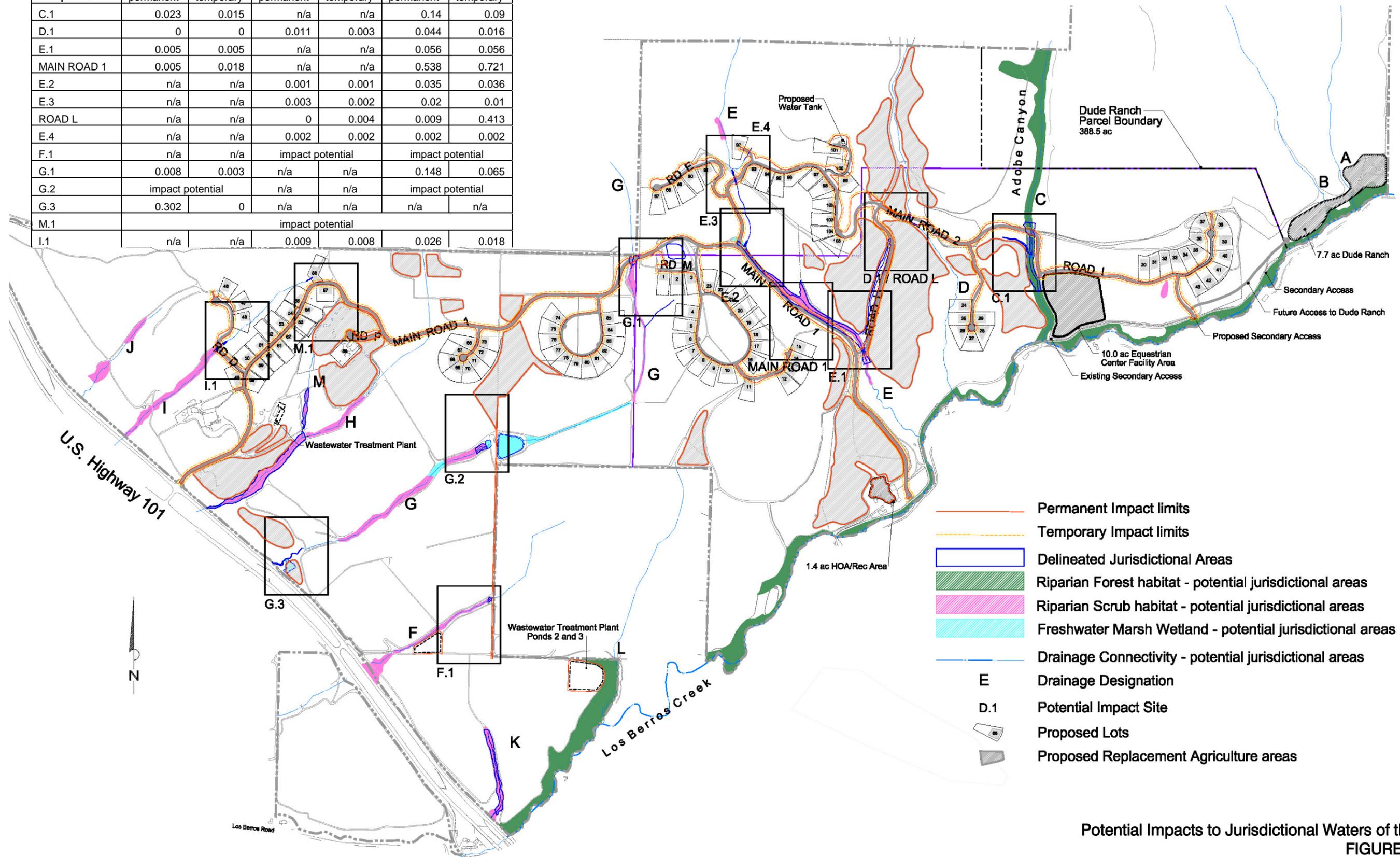
BIO Impact 2 Construction and future uses of the project could indirectly impact riparian and wetland habitat quality within the site and downstream from the site.

Implement WAT/mm-11 through WAT/mm-14.

BIO/mm-9 At the time of application for subdivision improvement plans or grading permits, the applicant shall submit a final drainage plan to the County Public Works Department for review and approval. The drainage plan shall ensure that water discharges into riparian and wetland areas shall be done in a non-erosive manner. All approved drainage measures shall be installed prior to final acceptance of subdivision improvements.

BIO/mm-10 At the time of application for subdivision improvement plans or grading permits, and subsequent individual lot construction permits, all applicable plans shall clearly show stockpile and staging areas. Stockpiles and staging areas shall not be placed in areas that have potential to experience significant runoff during the rainy season. All project-related spills of hazardous materials within or adjacent to project sites shall be cleaned up immediately. Spill prevention and cleanup materials shall be on-site at all times during construction. Cleaning and refueling of equipment and vehicles shall occur only within designated staging areas. The staging areas shall conform to standard BMPs applicable to attaining zero discharge of storm water runoff. No maintenance, cleaning or fueling of equipment shall occur within wetland or riparian areas, or within 50 feet of such areas. At a minimum, all equipment and vehicles shall be checked and maintained on a daily basis to ensure proper operation and to avoid potential leaks or spills.

Impact Site	IMPACTS TO JURISDICTIONAL WATERS (acres)					
	ACOE Wetlands		ACOE Other Waters		CDFG	
	permanent	temporary	permanent	temporary	permanent	temporary
C.1	0.023	0.015	n/a	n/a	0.14	0.09
D.1	0	0	0.011	0.003	0.044	0.016
E.1	0.005	0.005	n/a	n/a	0.056	0.056
MAIN ROAD 1	0.005	0.018	n/a	n/a	0.538	0.721
E.2	n/a	n/a	0.001	0.001	0.035	0.036
E.3	n/a	n/a	0.003	0.002	0.02	0.01
ROAD L	n/a	n/a	0	0.004	0.009	0.413
E.4	n/a	n/a	0.002	0.002	0.002	0.002
F.1	n/a	n/a	impact potential		impact potential	
G.1	0.008	0.003	n/a	n/a	0.148	0.065
G.2	impact potential		n/a	n/a	impact potential	
G.3	0.302	0	n/a	n/a	n/a	n/a
M.1	impact potential					
I.1	n/a	n/a	0.009	0.008	0.026	0.018



Potential Impacts to Jurisdictional Waters of the U.S.
FIGURE V.C.-2

Back of Figure V.C.-2

- BIO/mm-11 Prior to map recordation, permanent installation of filtration devices designed to remove oil, grease, nitrogen from livestock manure, and other potential pollutants from storm water runoff shall be installed for all project storm water runoff directed to drainages within or adjacent to the project site.
- BIO/mm-12 If surfactants or herbicides are used for restoration or residential purposes following construction, application of surfactants or herbicides shall not occur within 20 feet of riparian or wetland areas. Application of herbicides and pesticides shall be conducted in accordance to the product label and performed by an individual in possession of a valid Qualified Applicator License.
- BIO/mm-13 At the time of application for subdivision improvement plans or grading permits, all plans shall clearly show that any proposed livestock staging, washing, or feeding areas are located a minimum of 100 feet from on-site drainages. The applicant shall maintain 35 feet of vegetated buffers around all on-site drainages located within the vicinity of any livestock staging areas. The applicant shall maintain and promote the growth of riparian species such as willows, coyote brush, blackberry, and grasses within the buffer areas.
- Residual Impact* With implementation of the above mitigation measures, indirect impacts associated with degradation of onsite and downstream aquatic areas due to sedimentation or storm water runoff would be considered *less than significant with mitigation, Class II*.

2) Impacts to Coast Live Oak Woodland

Construction and future uses of the proposed project elements (not including off-site road improvements) would disturb 14.35 acres of coast live oak woodland including approximately 300 individual oak trees that are greater than five inches diameter at breast height (DBH). AutoCAD was utilized to calculate the number of acres of oak woodland that would be disturbed (refer to Figures V.C.-1 through V.C.-3). The quantity of disturbed oak trees was determined by applying a reasonable case scenario to each project element. An individual tree was considered “removed” if it was reasonable to assume that project activities would physically remove the individual or otherwise result in unsuitable growing conditions. Individual oak trees were counted as removed if they fell within the following parameters: the individuals were located within 25 feet of any proposed road, utility, or structural building envelope; or, the individuals were located within the proposed boundaries of replacement agricultural areas. An individual tree was considered impacted but not removed if it was reasonable to assume that project activities would physically alter the tree (e.g., trimming) or the trees immediate surroundings (e.g., changes in topography or understory). Individual oak trees were counted as “impacted but not removed” if they fell outside of the removal line but within 100 feet of any proposed road, utility, or structural building envelope. The 100-foot boundary was implemented in anticipation of post-construction vegetation management activities required by California Department of Forestry and Fire Protection (CAL FIRE) regulations. Disturbances to individual oak trees were

assessed based on preliminary project plans that were supplied by the applicant. Table V.C.-5 provides a summary of estimated disturbances to oak trees. The assessment parameters assume that disturbances would occur during the grading of the proposed residential lots, roads, and utilities; or, during subsequent vegetation management (required by CAL FIRE) that would occur after construction is complete. Under a reasonable worst case scenario, impacts resulting from subsequent vegetation management include trimming, understory removal, landscaping, watering, grazing, and fire protection buffers.

Pursuant to SB 1334, the County requires significant impacts to oak trees and oak woodlands to be mitigated. Significant impacts are defined as cutting or removing ten percent or more of the oak woodland canopy or removing more than ten oak trees. County guidelines encourage project modifications to avoid or reduce impacts to oak woodland. If project modifications are not feasible and conversion of oak woodland is unavoidable, the County allows mitigation for oak woodland impacts to be implemented via oak tree replanting and implementation of a conservation easement, or payment of a fee to the Wildlife Conservation Board. Tree replanting can constitute up to 50 percent of the required mitigation; and all planted trees must be monitored for seven years. Potential replant areas are located near Drainage D, across from Residential Sub-cluster B, or in the annual grassland above the proposed water tank (refer to Figures V.A.-1.1 through V.A.-1.3). The remaining 50 percent of the mitigation can be implemented via the following procedures: 1) development of a third party Conservation Easement. The Conservation Easement must include 2,000 square feet for each tree removed and be controlled by a land trust; or, 2) payment of a fee up to \$970 for each tree removed. Payment would be issued the California Wildlife Conservation Board.

**TABLE V.C.-5
Summary of Disturbed Coast Live Oak Trees**

Project Element	# of Trees Removed	# of Trees Impacted	Total Trees Disturbed
Vineyard Replacement	32	0	32
Residential Sub-cluster A (Lots 11-15)	27	70	97
Residential Sub-cluster B (Lots 24-29 and Access Road J)	34	37	71
Residential Sub-cluster C (Lots 46-48, 52-56, 62, 64-65, and Access Road D)	25	73	98
Main Road 1	0	2	2
Total	118	182	300

Significant project modifications may reduce project-specific oak woodland impacts, including elimination of Lots 11-15, Lots 24-29 and Access Road J, Lots 46-48, 52-56, 62, 64-65, and Access Road D. The following impacts and associated mitigation assume that project modifications will not be feasible and are based on the proposed project design.

BIO Impact 3

Development of the proposed project would result in the removal of and/or impacts to an estimated 300 coast live oak trees that are greater than five inches DBH, as well as impacts to approximately 14.35 acres of native oak woodland habitat. In accordance with Kuehl Bill mitigation techniques, half of the estimated oak trees that are removed or impacts can be replaced, but due to the long time period required for the planted trees to develop equivalent oak woodland habitat values, and the fact there is no assurance that oak trees within lot boundaries would be protected in the future, impacts to oak trees and oak woodlands are significant and unavoidable.

BIO/mm-14

At the time of application for subdivision improvement plans or grading permits, the applicant shall prepare an Oak Tree Inventory, Avoidance, and Protection Plan as outlined herein. The plan shall be reviewed by a County-approved arborist prior to approval of grading permits, and shall include the following items:

- a. Comprehensive Oak Tree Inventory. This shall include the following information:
 1. An inventory of all oak trees at least five inches in diameter at breast height within 50 feet of all proposed impact areas. All inventoried trees shall be shown on maps. The species, diameter at breast height, location, and condition of these trees shall be documented in data tables.
 2. Identification of trees that will be retained, removed, or impacted. This information shall be shown on maps and cross-referenced to data tables described in item a.
 3. The location of proposed structures, utilities, driveways, grading, retaining walls, outbuildings, community water and wastewater facilities, and impervious surfaces shall be shown on maps. The applicant shall clearly delineate the building sites/building control lines containing these features on the project plans. In addition, the plans shall include any fenced areas for livestock or pets and fuel reduction areas prescribed by CAL FIRE.
 4. A landscaping plan that describes the size and species of all trees, shrubs, and lawns proposed to be planted in the project area, including the limits of irrigated areas and areas proposed for treated effluent disposal.
 5. Revised drainage patterns that are within 100 feet upslope of any existing oak trees to remain. All reasonable efforts shall be made to maintain the historic drainage patterns and flow volumes in the vicinity of these oak trees. If not feasible, the drainage plan shall clearly show which trees would be receiving more or less drainage.

- b. Oak Tree Avoidance Measures. Grading and development within proposed lots shall avoid the removal of oak trees to the maximum extent possible. Such activities shall minimize potential disturbance to oaks and their associated root zones to the maximum extent possible, within final site plans requiring concurrence from county staff to ensure compliance with this provision.

- c. Oak Tree Protection Guidelines. Tree protection guidelines and a root protection zone shall be established and implemented for each tree to be retained that occurs within 50 feet of impact areas. The following guidelines shall be included:
 - 1. A qualified arborist shall determine the critical root zone for each retained tree on a case-by-case basis, based upon tree species, age, and size. This area is generally defined as 1.0 to 1.5 times its diameter at breast height. At a minimum, the critical root zone shall be the distance from the trunk to the drip line of the tree.
 - 2. All trees to remain 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. Grading, utility trenching, compaction of soil, or placement of fill shall be avoided within these fenced areas. If grading in the root zone cannot be avoided, retaining walls shall be constructed to minimize cut and fill impacts. 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. The project arborist shall approve any work within the root protection zone.
 - 3. Unless previously approved by the county, the following activities are not allowed within the root zone of existing or newly planted oak trees: year-round irrigation (no summer watering, unless “establishing” new tree or native compatible plants for up to three years); grading (includes cutting and filling of material); compaction (e.g., regular use of vehicles); placement of impermeable surfaces (e.g., pavement); disturbance of soil that impacts roots (e.g., tilling).
 - 4. The applicant shall minimize trimming of oak trees to remain on-site. Removal of larger lower branches should be minimized to 1) avoid making tree top heavy and more susceptible to “blow-overs”, 2) reduce having larger limb cuts that take longer to heal and are much more susceptible to disease and infestation, 3) retain wildlife habitat values associated with the lower branches, 4) retain shade to keep summer temperatures cooler (retains higher soil moisture, greater passive solar potential, provides better conditions for oak seedling volunteers) and 5) retain the natural shape of the tree. The amount of trimming (roots or canopy) done in any one season

shall be limited as much as possible to reduce tree stress/shock (ten percent or less is best, 25 percent maximum). If trimming is necessary, the applicant shall use a certified arborist when removing limbs. Unless a hazardous or unsafe situation exists, major trimming shall be done only during the summer months.

BIO/mm-15

At the time of application for subdivision improvement plans or grading permits, the applicant shall submit an Oak Tree Replacement, Monitoring, and Conservation Plan. Of those trees identified in the Oak Tree Inventory, Avoidance, and Protection Plan as being removed or impacted, 50 percent shall be replaced per county and Kuehl Bill standards. A conservation easement or monetary contribution to the Oak Woodlands Conservation Fund shall be used for the remaining mitigation.

- a. The county-approved arborist shall provide or submit approval of an oak tree replacement plan at a minimum 4:1 ratio for oak trees removed and a minimum replacement ration of 2:1 ratio for oak trees impacted (i.e., disturbance within the root zone area).
 1. Replacement oak trees shall be from regionally or locally collected seed stock grown in vertical tubes or deep one-gallon tree pots. Four-foot diameter shelters shall be placed over each oak tree to protect it from deer and other herbivores, and shall consist of 54-inch tall welded wire cattle panels (or equivalent material) and be staked using T-posts. Wire mesh baskets, at least two feet in diameter and two feet deep, shall be use below ground. Planting during the warmest, driest months (June through September) shall be avoided. The plan shall provide a species-specific planting schedule. If planting occurs outside this time period, a landscape and irrigation plan shall be submitted prior to permit issuance and implemented upon approval by the county.
 2. Replacement oak trees shall be planted no closer than 20 feet on center and shall average no more than four planted per 2,000 square feet. Trees shall be planted in random and clustered patterns to create a natural appearance. Replacement trees shall be planted in natural appearance. As feasible, replacement trees shall be planted in a natural setting on the north side of and at the canopy/dripline edge of existing mature native oak trees; on north-facing slopes; within drainage swales (except when riparian habitat present); where topsoil is present; and away from continuously wet areas (e.g., lawns, irrigated areas, etc). Replanting areas shall be either in native topsoil or areas where native topsoil has been reapplied. A seasonally timed maintenance program, which includes regular weeding (hand removal at a minimum of once early fall and once early spring within at least a three-foot radius from the tree or installation of a staked “weed mat” or weed-free

mulch) and a temporary watering program, shall be developed for all oak tree planting areas. A qualified arborist/botanist shall be retained to monitor the acquisition, installation, and maintenance of all oak trees to be replaced. Replacement trees shall be monitored and maintained by a qualified arborist/botanist for at least seven years or until the trees have successfully established as determined by the County Environmental Coordinator. Annual monitoring reports will be prepared by a qualified arborist/botanist and submitted to the County by October 15 each year. Annual monitoring reports will include specifics discussed below.

3. The restored area shall be at a minimum equal in size to the area of oak woodlands lost of disturbed.

BIO/mm-16

The applicant can mitigate the remaining 50 percent of the oak woodland impacts by one of the following ways: 1) provide for the protection of oak woodland habitat in perpetuity through acquisition or donation of a conservation easement that includes 2000 square feet per tree removed; 2) provide for funding to the California Wildlife Conservation Board to be used for the purchase of Oak Woodland Conservation Easements.

- a. Prior to approval of subdivision public improvement plans or grading permit issuance, the applicant shall record a conservation easement that protects 2000 square feet of oak woodland habitat for each tree removed in perpetuity. The conservation easement shall be controlled by a qualified conservation organization. Potential conservation organizations include but are not limited to: The Nature Conservancy, San Luis Obispo Land Conservancy, or Greenspace the Cambria Land Trust.

If the applicant is not able to establish a conservation easement, the applicant shall provide funding to the California Wildlife Conservation Board to be used for the purchase of Oak Woodland Conservation Easements. The final funding amount shall include \$970.00 for each tree removed.

Residual Impact

Implementation of mitigation measures would partially mitigate impacts; however, based on the significant loss of oak trees and oak woodland, and the time required for replacement vegetation to develop similar habitat values as the impacted oak woodland, residual impacts would occur and potential impacts would be considered *significant and unavoidable, Class I*.

3) Impacts to Natural Communities and Special-status Species

Construction of the project would result in permanent impacts to natural communities, which provide habitat for special-status plant and animal species. Approximately 113.22 acres of grassland, 9.20 acres of coastal scrub, 0.66 acres of central coast riparian scrub, 0.55 acres of

freshwater marsh wetland, 14.35 acres of coast live oak woodland, and 0.21 acres of riparian forest would be impacted by project related activities. These acreages include impacts associated with vegetation management as mandated by CAL FIRE. Construction activities including grading, paving, building, and replacement agriculture within these communities would impact special-status species.

As discussed in Section 1.(2)a) Survey Methods and Results, survey efforts were sufficient to verify the presence of special-status species including approximately 80 Jones' mallow, three club-haired mariposa lily, white-tailed kite, cooper's hawk, pond turtles, and California red-legged frog.

BIO Impact 4 Implementation of the proposed project would directly impact natural communities that provide habitat for special-status plant and wildlife species.

BIO/mm-17 At the time of application for subdivision improvement plans or grading permits, the applicant shall submit a Special-status Plant Mitigation Plan that provides for the propagation, planting, and monitoring of Jones' mallow and club-haired mariposa lily at a 5:1 replacement ratio. The mitigation plan shall detail methods for transplanting, propagating, planting, and maintaining the special-status plant species that would be impacted. The replant area shall not be subject to vegetation management (i.e., agricultural areas or fire buffer zones) and shall not displace any sensitive native habitat. To ensure the success of any planted or transplanted individuals, the mitigation program will include monitoring and reporting guidelines.

BIO/mm-18 During the initial disturbance of any natural communities or aquatic areas a qualified biological monitor shall be on-site to capture and relocate any native wildlife species (including California red-legged frog and southwestern pond turtle) that may be harmed by construction activities. The applicant is responsible to ensure that the biological monitor is approved by the appropriate agency to capture and release protected species.

Residual Impact With implementation of the above mitigation measures, indirect impacts associated with potential loss of special-status species would be considered *less than significant with mitigation, Class II*.

4) Impacts to Nesting Birds

The riparian corridors, oak woodlands, individual oak trees, coastal scrub, and grasslands on the project site provide suitable roosting, nesting, and foraging habitat for a variety of bird species, including several that are considered sensitive by resource agencies. Nesting birds could be directly and/or indirectly impacted by construction activities occurring any time during the typical nesting season (from March 1 to August 30). Tree-nesting birds could have nests directly damaged or destroyed during tree-removal activities, or their nesting and foraging behaviors

could be indirectly affected by noise and other sources of construction related disturbance. Ground nesting birds such as western meadow lark could have nests directly impacted and behaviors indirectly impacted during any construction activities in grasslands on-site.

BIO Impact 5 Implementation of project activities in or adjacent to natural plant communities has potential to impact birds by disturbing their nesting behavior.

BIO/mm-19 Prior to commencement of subdivision public improvements or site grading, and subsequent individual lot construction permits, if construction activities are scheduled to occur during the typical bird nesting season (from March 1 to August 31) a qualified biologist shall be retained to conduct a pre-construction survey (approximately one week prior to construction) to determine presence/absence for tree and ground nesting birds. If no nesting activities are detected within the proposed work area, noise-producing construction activities may proceed and no further mitigation is required. If nesting activity is confirmed during pre-construction nesting surveys or at any time during the monitoring of construction activities, work activities shall be delayed within 300 feet (500 feet if raptors) of active nests until the young birds have fledged and left the nest. In addition, the results of the surveys shall be passed immediately to the CDFG and the County, possibly with recommendations for buffer zone changes, as needed, around individual nests. Tree removal in riparian zones shall be monitored and documented by the biological monitor regardless of time of year.

Residual Impact With implementation of mitigation, impacts associated with potential impacts to nesting birds would be considered *less than significant with mitigation, Class II*.

5) Impacts to California Red-legged Frog

Los Berros Creek, the various drainages, and existing agricultural ponds located throughout the project area provide suitable habitat for California red-legged frog. Rincon Consultants conducted protocol level surveys for California red-legged frog in October and November of 2000. The surveys identified nine California red-legged frogs centrally located in the project site. These individuals were observed in the freshwater marsh and in-stream stock pond that are associated with Drainage G. The proposed project includes installation of road crossings, removal of an existing pond, grading, and lot development within California red-legged frog breeding and dispersal habitat. These activities have potential to impact or result in “take” of California red-legged frog. It is anticipated that these impacts would occur during implementation of the subdivision improvements.

BIO Impact 6 Construction of the project has potential to impact breeding and dispersal habitat for California red-legged frog.

Implement WAT/mm-11 through WAT/mm-14, and BIO/mm-6 and BIO/mm-10.

BIO/mm-20

Prior to approval of subdivision public improvements or grading permit issuance, the applicant shall coordinate with United States Fish and Wildlife Service to determine the potential for take of California red-legged frog during the proposed activities. Such coordination may result in a Section 10 Consultation (no federal nexus) or Section 7 Consultation (federal nexus) pursuant to the Federal Endangered Species Act. Formal consultation may result in issuance of a Habitat Conservation Plan or Biological Opinion both of which would provide subsequent mitigation measures that would minimize the potential for take of California red-legged frog during project activities. Subsequent mitigation measures may include but will not be limited to the following:

- a. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frog.
- b. Ground disturbance will not begin until written approval is received from the USFWS that the biologist is qualified to conduct the work.
- c. An USFWS-approved biologist will survey the project area 48 hours before the onset of construction activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work activities begin. The USFWS-approved biologist will relocate the California red-legged frog the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the proposed project. The USFWS-approved biologist will maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs [digital preferred]) to assist him or her in determining if trans-located animals are returning to the point of capture.
- d. Before any construction activities begin on the project, an USFWS-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the species for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
- e. An USFWS-approved biologist will be present at the construction site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, the state or local sponsoring agency will designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure that this monitor receives the outlined training and in the identification of California red-legged frog. If the monitor or the USFWS-approved biologist recommends

that work be stopped because California red-legged frog would be affected to a degree that exceeds the levels anticipated by the USFWS during the review of the proposed action, they will notify the project superintendent immediately. The superintendent will either resolve the situation by eliminating the effect immediately or require that all actions that are causing these effects be halted. If work is stopped, the USFWS will be notified as soon as is reasonably possible.

- f. During construction activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
- g. Habitat contours will be returned to their original configuration at the end of the project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the USFWS determine that it is not feasible or modification of original contours would not benefit the California red-legged frog.
- h. The number of access routes, size of staging areas, and the total area of activity will be limited to the minimum necessary to achieve the project goal. Environmentally Sensitive Areas will be established to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.
- i. The applicant will coordinate with the environmental monitor in an effort to schedule work activities for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frog through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and informal consultation between the USFWS during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.
- j. To control sedimentation during and after project implementation, the applicant will implement best management practices (BMPs) outlined in any authorizations or permits, issued under the authorities of the Clean Water Act that it receives for the project. If BMPs are ineffective, the applicant will attempt to remedy the situation immediately, in consultation with the USFWS.
- k. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to

maintain downstream flows during construction. The methods and materials used in any dewatering will be determined by the USFWS on a site-specific basis. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible; any imported material will be removed from the streambed upon completion of the project.

- l. During construction, water will not be impounded in a manner that may attract California red-legged frogs to the project area.
- m. An USFWS-approved biologist will permanently remove any individuals of exotic species, such as bullfrogs (*Rana catesbeiana*), crayfish, and centrarchid fishes from the project area, to the maximum extent possible. The USFWS-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

Residual Impact With implementation of the above mitigation measures, direct impacts to California red-legged frog associated with project activities would be considered *less than significant with mitigation, Class II*.

6) Impacts to South-central California Coast Steelhead

Development of the proposed project would result in decreased water quality and quantity in Los Berros Creek, which is designated steelhead critical habitat. The project includes installation of 14 road crossings within tributaries to Los Berros Creek; and, would convert approximately 150 acres of agricultural land and natural plant communities to impervious surfaces in the Los Berros Creek watershed. This land conversion would result in a 2.8 percent increase in net peak runoff during a 100-year storm (refer to Section V.B. Water Resources). The applicant proposes to maintain existing drainage patterns by allowing stormwater to discharge into existing natural swales, which direct runoff into Los Berros Creek. The increased runoff would include pollutants such as petroleum products, herbicides, pesticides, nitrates from livestock manure, and urban debris, which would contribute to the general decrease of water quality within the creek.

As discussed in Section V.B. (Water Resources), surface water quantity within Los Berros Creek has decreased over the last two decades. Such declines are a result of increased demands on alluvial waters during times of drought. Development of the proposed project would potentially indirectly reduce downstream flow by up to 0.1 cubic-feet per second. The increased demands for ground water would decrease surface water quantity within Los Berros Creek and steelhead critical habitat.

BIO Impact 7 The proposed project would result in a decrease in water quality and quantity within Los Berros Creek and steelhead critical habitat.

Implement BIO/mm-1 through BIO/mm-13, BIO/mm-28, and WAT/mm-1 through WAT/mm-8, and WAT/mm-11 through WAT/mm-14.

Residual Impact Implementation of the above mitigation measures will minimize the proposed project's effects on water quality within Los Berros Creek; however, does not address the decrease of surface water in the creek associated with increased water demands. Potential impacts associated with the decrease in water quality and quantity in steelhead critical habitat would be considered *significant and unavoidable, Class I*.

7) Impacts Resulting From Vineyard Replacement

The proposed project includes replanting approximately 143 acres of vineyard for the 113 acres that would be removed by project activities. Some of the areas that are proposed for the replacement vineyards currently support natural plant communities and are located adjacent to waters of the U.S. Installation of the proposed agriculture replacement areas would impact 32 coast live oak trees and the following plant communities: Approximately 44.45 acres of grassland; approximately 1.85 acres of coast live oak woodland; approximately 1.11 acres of coastal scrub; and, approximately 0.24 acres of fresh water marsh (refer to Figure V.C.2). Activities associated with the replacement vineyards would permanently impact these plant communities and any special-status species or nesting birds that may exist there. In addition, the replacement vineyards that are located adjacent to waters of the U.S would increase erosion and siltation into the drainage system.

Studies conducted by Virginia Tech University have shown that an estimated 84 to 90 percent of sediment from cultivated agricultural fields can be trapped by riparian buffer areas. The U.S. Department of Agriculture Natural Resources Conservation Service recommends a minimum buffer width of at least 30 percent of the geomorphic floodplain, or at least 35 feet on all streams (Virginia Tech, 2002).

BIO Impact 8 Installation of the replacement vineyards could permanently impact special-status plant species and coast live oak trees.

Implement BIO/mm-14 through BIO/mm-19.

Residual Impact With implementation of the above mitigation measures, potential impacts to special-status species and oak trees, resulting from the replacement vineyards would be *less than significant with mitigation, Class II*.

BIO Impact 9 Installation and future uses of the replacement vineyards directly adjacent to waters of the U.S would increase erosion and silt deposition into the drainage system.

BIO/mm-21 At the time of application for subdivision improvement plans or grading permits, the applicant shall show on all applicable plans a 35-foot vegetated buffer between replacement vineyard areas and mapped jurisdictional areas (i.e., wetlands, waters of the U.S.). All agricultural practices including but not limited to road construction, vegetation removal, mowing, storage, and spraying shall be prohibited within the 35-foot buffer area. The applicant shall maintain and promote the growth of

riparian species such as willows, coyote brush, blackberry, and grasses within the buffer areas.

Residual Impact With implementation of the above mitigation measures, impacts to waters of the U.S. resulting from the replacement vineyards would be *less than significant with mitigation, Class II*.

b. Phase One

Phase one of the proposed project includes the development of 40 three residential lots, two main roads, eight secondary access roads, water supply utilities, wastewater utilities, a ranch headquarters, and an equestrian facility. These project elements would be located throughout the project site in various habitats. Project related activities including grading, building, and future uses would impact natural plant communities, coast live oak trees, aquatic areas, agricultural areas, and waters of the U.S.

1) Residential Development

Phase One of the proposed residential development project has potential to impact waters of the U.S., coast live oak woodlands, and habitat for special-status species. These impacts would occur during the construction of the main roads, wastewater treatment facilities, residential sub-clusters, replacement vineyards, and on-going fuel modification efforts mandated by CAL FIRE. The following sections discuss these specific impacts and the associated mitigation measures.

(a) Lot development

Development of Residential Sub-cluster A (Lots 11-15) and Residential Sub-cluster B (Lots 24-29) would directly impact approximately 2.22 acres of annual and perennial grassland, and 7.75 acres of coast live oak woodland and associated coastal scrub under story. Impacts to these habitats would result from lot grading, building, and vegetation removal associated with fuel reduction zones that would occur in the vicinity of the residential structures. Indirect impacts to waters of U.S. could occur during construction of Residential Sub-clusters A and B.

Residential Sub-clusters A and B: Impacts to Special-status Species

Development of Residential Sub-cluster A, Lots 11 through 15 and Residential Sub-cluster B, Lots 24-29 are located in areas that support coast live oak woodland, coastal scrub, and grassland communities. These communities may harbor special-status plant and animal species including nesting birds. Project activities could directly impact any special-status plant or animal species that are occupying the site. In addition, construction in these areas would disturb coast live oak woodland and oak trees (refer to Table V.C.-5). Section 5.a.(1) includes mitigation measures to address these impacts.

Residential Sub-clusters A and B: Indirect Impacts to Waters of the U.S.

As proposed, Residential Sub-clusters A and B are located at the top of the watersheds for Drainages L and D. Based on the Wetland Assessment prepared for the project site, these drainages include characteristics of ACOE jurisdictional “other waters” and project activities

would indirectly impact the drainage by increasing sediment loading during construction. Section 5.a.(1) includes mitigation measures to address these impacts.

(b) Roads

Phase One of the proposed project includes construction of two main roads (Main Road 1 and 2) and eight access roads (Roads A, G, H, I, J, K, L, and M). Construction of these roads and associated CAL FIRE fuel reduction zones would impact approximately: 19.46 acres of annual and perennial grassland; 30.22 acres of agricultural land; 0.57 acre of riparian scrub; 0.21 acre of riparian forest; 0.31 acre of freshwater marsh; and, 0.39 acre of coast live oak woodland. In addition, many of the roads will cross or travel along jurisdictional waters of the U.S. As proposed, the utilities associated with the project would be installed within the proposed road beds; consequently, impacts that are associated with utility installation are included in the following roads discussion. The following section discusses the impacts and mitigation measures associated with the road segments.

Main Roads 1 and 2: Impacts to Waters of the U.S.

As proposed, the alignment of Main Road 1 requires the construction of road crossings at Drainage G (Crossing G.1) and at Drainage E (Crossing E.2) (refer to Figure V.C.-2). In addition, an approximately 2,400-foot section of Main Road 1 would travel along the western bank of Drainage E. The alignment of Main Road 2 requires the installation of road crossings at Drainages C (Crossing C.1), Drainage D (Crossing D.1), and Drainage E (Crossing E.3) (refer to Figure V.C.-2). Construction of Main Roads 1 and 2 would result in fill and discharge in waters of the U.S, these activities would require authorization by CDFG, RWQCB, and ACOE. Section 5.a.(1) includes mitigation measures to address these impacts.

Main Roads 1 and 2: Impacts to Natural Plant Communities and Special-status Species

The proposed alignment of Main Roads 1 and 2 would traverse several natural plant communities and aquatic areas that may harbor special-status species including California red-legged frog. Special-status species in the area would be impacted by road construction. In addition, a portion of Main Road 1 would require removing an existing pond that supports pond turtles; and, impact two coast live oak trees (refer to Table V.B-5). Section 5.a.(1) includes mitigation measures to address these impacts.

Access Roads: Impacts to Natural Plant Communities and Waters of the U.S. and State

Construction of Phase One includes the development of eight secondary roads that will access the residential developments. Access Roads A, G, H, I, and M are located in existing vineyards and would not impact sensitive biological resources. However, Access Roads J, K, and L would impact approximately: 3.6 acres of grasslands, 0.39 acre of oak woodland with a coastal scrub understory; 0.09 acre of riparian scrub; and, 0.42 acres of agricultural land. These natural plant communities may harbor special-status species that would be disturbed by construction activities. Construction of Access Road J would disturb four coast live oak trees. Access Road L is located directly adjacent to a drainage that is a tributary to Drainage E, construction of Access Road L would result in dredge or fill of water of the U.S. Section 5.a.(1) includes mitigation measures to address these impacts.

(c) Water Infrastructure

As proposed, the project includes the installation of a 268,500-gallon water storage tank immediately northeast of proposed Lot 101, at the terminus of proposed Access Road F (refer to Figure V.C.-1.2). The location of Access Road F and the water tank are located in an area that potentially supports special-status species that would be impacted by project activities.

Two additional wells are proposed to be drilled to serve the vineyard and winery. These new wells would be located on the east side of Highway 101, within the western portion of the project site, in agriculture land. Due to the historic land uses in the proposed location of the new wells, biological impacts associated with the well installation are not anticipated. The water pipelines and force mains associated with the proposed water infrastructure would be installed within existing and proposed roadways; consequently, impacts associated with the waterlines and force mains are discussed in the roads section above.

Proposed Water Tank: Impacts to Special-status Species

As proposed, Access Road F would provide access to the new water tank. The new water tank and Access Road F would be installed in an area that supports 1.79 acres of grasslands and 0.66 acre of coastal scrub plant communities. These plant communities potentially support special-status species including protected plants and nesting birds that would be directly impacted by the development. Final improvements to Access Road F are proposed to be included in Phase Three of the project; however, initial disturbances and biological impacts associated with Road F would take place in Phase One during installation of the new water tank. Section 5.a.(1) includes mitigation measures to address these impacts.

(d) Wastewater Treatment and Disposal

The applicant proposes to manage wastewater by constructing a sewage collection system that includes the following elements: 1) a 10,000-square foot building shell, which would house a 5,000-square foot domestic wastewater treatment facility and a 5,000-square foot winery wastewater treatment facility; 2) six storage tanks for domestic sewage, which would be located within a 4,000-square foot underground structure adjacent to the 10,000-square foot building shell; 3) a domestic sewage collection system consisting of pipes, force mains, and lift stations; 4) two ponds to store treated domestic wastewater and one pond to store treated winery wastewater; and, 5) a 20.8-acre disposal area for treated domestic wastewater (refer to Figures V.C.-1.1 through V.C.-1.3)

Impacts associated with the wastewater treatment facility, 20.8-acre disposal site, and the wastewater storage reservoirs are discussed below. The proposed sewage collection system including the pipes and force mains would be located within the road beds of proposed and existing roads. Impacts associated with the sewage collection system are discussed in Section 5.b.1(b) Roads.

Wastewater Treatment Facility: Impacts to Nesting Birds

The proposed 10,000-square foot wastewater treatment facility and 4,000-square foot underground storage structures would be located in an area that is heavily disturbed by existing

agricultural uses including storage and parking. As a result of these activities the immediate area is not suitable for special status-species or plant communities. However, a small grove of adult eucalyptus trees is directly adjacent to the proposed site. The eucalyptus trees provide valuable nesting habitat for a variety of bird species. Project activities would generate noise that would disturb the nesting behavior of birds within the eucalyptus grove. Section 5.a.(1) includes mitigation measures to address these impacts.

20.8-acre Disposal Site: Indirect Impacts to Waters of the U.S

The proposed treated effluent disposal site is located between Los Berros Creek and Drainage K; and, approximately 500 feet upslope of these jurisdictional features. The topography of the proposed effluent disposal site is gently sloping towards Drainage K, which is a tributary to Los Berros Creek. Construction activities and future uses of the disposal site would result in effluent discharge and sediment loading into waters of the U.S. Section 5.a.(1) includes mitigation measures to address these impacts.

Removal of Existing Reservoir: Impacts to Special-status Species

The proposed project includes removing an existing water storage reservoir that is located between proposed Main Road 1 and Lots 1 through 3. This reservoir provides habitat for aquatic species including California red-legged frog, southwestern pond turtle, and two-striped garter snake. During the 2007 survey, a pond turtle was observed basking on an irrigation line in the reservoir. Removal of the reservoir would directly impact the pond turtle habitat and potentially result in take of the observed individual and any other aquatic species that may be present within the reservoir. Section 5.a.(1) includes mitigation measures to address these impacts.

Construction of Waste Water Storage Reservoirs: Indirect Impacts to Waters of the U.S.

The proposed project includes constructing three reservoirs that would be used for storing recycled wastewater. The proposed locations for the three reservoirs are within existing agricultural areas; consequently, impacts to special-status species are not expected during construction of the reservoirs. However, the three reservoirs are located directly adjacent to waters of the U.S. and construction activities would result in indirect impacts to the jurisdictional waters. Indirect impacts include a temporary increase of sediment loading into the drainages, during construction. Section 5.a.(1) includes mitigation measures to address these impacts.

2) Ranch Headquarters

The proposed ranch headquarters would be located on approximately 1.4 acres within proposed Open Space Lot 44, and would include a private recreation facility, community center, and homeowner's association building (refer to Figures III-13 and III-14). Additional facilities would include the main entry gate and an 150-square foot guard station, 250-square foot mail gazebo, 29 parking spaces, patio areas, exterior lighting, lawn, meadow grass and landscaping, and two overflow parking areas (one un-improved, the second improved with decomposed granite or gravel). The site is directly adjacent to Upper Los Berros Creek Road and Los Berros Creek in an area that has been disturbed by agricultural practices.

(a) Structural improvements

The proposed structural improvements that are associated with the ranch headquarters include the homeowner's association facility, clubhouse, recreation center, mail center, and entry gates. Grading activities associated with the construction of these structures would remove approximately .61 acre of grassland, landscape and riparian trees, and several existing agricultural structures. The annual grassland in this area has been significantly disturbed by agricultural practices including cattle staging and mowing; consequently, it is unlikely that special-status plant species exist in this area. However the trees and riparian corridor within the vicinity do provide valuable nesting habitat for bird species and foraging/shelter habitat for other wildlife species. In addition, construction activities and future uses of the site would result in indirect impacts to Los Berros Creek, which is designated critical habitat for south central steelhead trout.

Ranch Headquarters: Impacts to Nesting Birds

Numerous adult riparian and landscape trees are located within the immediate vicinity of the proposed ranch headquarters site. These trees function as an extension of the Los Berros Creek riparian corridor, and provide valuable nesting habitat for various bird species. Project activities such as grading and building would disturb the nesting behavior of birds in the area. Section 5.a.(1) includes mitigation measures to address these impacts.

Ranch Headquarters: Impacts to Oak and Riparian Trees

As discussed above numerous mature riparian trees are located within the vicinity of the proposed ranch headquarters site. Several of these trees are native coast live oak and sycamore trees which are an extension of the adjacent Los Berros Creek riparian corridor. Project activities including grading, drainage improvements, and fuel reduction management would impact these trees. Section 5.a.(1) includes mitigation measures to address these impacts.

Ranch Headquarters: Indirect Impacts to Waters of the U.S.

The project site is located directly adjacent to Los Berros Creek and project activities would result in indirect impacts to the creek. Indirect impacts would include sedimentation, increased stormwater runoff, and water pollution. These impacts would result from an increase in impervious layers associated with the internal roads and parking, and increased traffic. Use, maintenance, or staging of construction equipment in areas adjacent to drainages could also increase the risk of fuel spills or leaks into sensitive habitats during construction. Section 5.a.(1) includes mitigation measures to address these impacts.

3) Equestrian Facility

The proposed equestrian facility would be approximately ten acres in size and would include the following elements: 28,000-square foot corral/arena; 2,500-square foot facilities building; 28,800 square feet of paddocks including 20 barn stalls; 5,000-square foot exercise ring; 14 pull-through truck-trailer parking spaces; horse pasture; two equestrian trailheads; exterior lighting; perimeter fencing and an entry feature (refer to Figures III-15 and III-16). This facility would be located adjacent to Upper Los Berros Road, and at the confluence of Drainage C and Los Berros Creek.

(a) Structural improvements

The proposed equestrian facility and associated structural improvements are located in an area that is currently managed vineyard. Consequently, direct impacts to natural plant communities and special-status plant species are not anticipated. However, the equestrian facility would be located at the confluence of Drainage C and Los Berros Creek. These two features are perennial creeks that support central coast cottonwood-sycamore riparian forest which is considered a sensitive habitat by the CDFG. This riparian habitat provides valuable nesting habitat for various bird species and cover/foraging habitat for aquatic species. In addition, these creeks are jurisdictional waters of the U.S. Construction activities and future uses of the equestrian facility would result in indirect impacts to water quality within the adjacent riparian areas and wildlife species that occupy the riparian habitat.

Equestrian Facility: Indirect Impacts to Nesting Birds

The riparian habitat adjacent to the proposed equestrian facility site provides valuable nesting habitat for various bird species including white-tailed kite, Cooper's hawk, fly-catchers, and other species. Construction of the equestrian facility would disturb the nesting behavior of birds in the area. Section 5.a.(1) includes mitigation measures to address these impacts.

Equestrian Facility: Indirect Impacts to Waters of the U.S.

The proposed equestrian facility is located directly adjacent to Los Berros Creek and Drainage C, both of which are waters of the U.S. Project activities would result in indirect impacts to the creeks. Indirect impacts may include sedimentation, increased storm water runoff, and water pollution. These impacts would result from use, maintenance, or staging of construction equipment in areas adjacent to drainages; or, future uses such as the proposed parking and equestrian equipment washout areas. Section 5.a.(1) includes mitigation measures to address these impacts.

c. Phase Two

Phase two of the proposed development includes construction of 40 residential lots (Residential Sub-clusters C and D) and five access roads. These project elements would be located throughout the project site in various habitats. Project related activities including grading, building, and future uses would impact natural plant communities, coast live oak trees, aquatic areas, agricultural areas, and waters of the U.S. These impacts would occur during the construction of the access roads and residential sub-clusters.

1) Residential Development

(a) Lot development

Development of Residential Sub-cluster C (Lots 46-65) would directly impact 1.96 acres of grassland, and 3.93 acres of coast live oak woodland (refer to Table V.C.-5). Impacts to these habitats would be a result of the lot grading, building, and vegetation removal that would occur in the vicinity of the residential structures for fuel reduction. In addition, indirect impacts to waters of the U.S. would occur as a result of construction of Residential Sub-cluster C.

Residential Sub-cluster D is located in areas that have been subject to agricultural disturbance; and, development of these areas would not result in significant biological impacts.

Residential Sub-cluster C: Impacts to Special-status Species

As proposed, Residential Sub-cluster C would be located in an area that maintains coast live oak woodland with an annual grass and remnant coastal scrub understory. Numerous large sandstone rock outcrops are also located within the proposed development site. These communities and rock outcrops provide valuable nesting and foraging habitat for various bird species and other wildlife. In addition, special-status plant species could occupy this area. Project activities including grading and building would directly and indirectly impact special-status species and nesting birds that may be in the area. Section 5.a.(1) includes mitigation measures to address these impacts.

Residential Sub-cluster C: Indirect impacts to Waters of the U.S.

As proposed, Residential Sub-cluster C is located at the top of the watershed for Drainage I. Drainage I maintains characteristics of ACOE “other waters” (refer to Figure V.C.-2) and project activities would indirectly impact the drainage by increasing sediment loading during construction. Section 5.a.(1) includes mitigation measures to address these impacts.

(b) Roads

Construction of Phase Two includes the development of five access roads (Roads B, C, D, P, and N) that would traverse a variety of natural plant communities and jurisdictional waters. Access roads B and C are located in existing vineyards; consequently, development of these roads would not result in significant biological impacts. Proposed Access Road N is the existing main entrance for the winery operations. Improvements to the existing road are not expected to cause significant biological impacts. Access Roads D and P would be located in coast live oak woodland and waters of the U.S. Construction of Roads D and P would disturb 0.44 acre of coast live oak woodland and directly impact waters of the U.S.

Access Roads: Impacts to Natural Plant Communities and Oak Woodland

Access Roads D and P are located within oak woodland that may harbor special-status species and nesting birds. Construction in these areas would disturb oak trees (refer to Table V.C.-5) and any special-status species that may be in the area. In addition construction activities could disturb nesting birds within the oak woodland areas. Section 5.a.(1) includes mitigation measures to address these impacts.

Access Roads: Impacts to Waters of the U.S.

Construction of Access Road D would require installation of a culvert within Drainage I. Drainage I maintains characteristics of ACOE “other waters.” Construction activities would result in direct and indirect impacts to the drainage including dredge and fill. Section 5.a.(1) includes mitigation measures to address these impacts.

d. Phase Three

Phase three of the proposed development includes the construction of 19 residential lots (Residential Sub-cluster E) and Access Roads E and F (refer to Figure V.C.-2). These elements are located in annual grassland and coastal scrub communities and adjacent to Drainage E.

1) Residential Development

Phase Three of the proposed residential development project has potential to impact waters of the U.S., annual grassland, and coastal scrub habitat. These impacts would occur during the construction of the access roads, residential sub-clusters, replacement vineyards, and fuel reduction. The following sections discuss these impacts and the associated mitigation measures.

(a) Lot development

As proposed, phase three of the development includes the construction of Residential Sub-cluster E, which consists of 19 residential lots. Lots 87 through 91 are located within existing vineyards; whereas, Lots 92 through 101 would be located within natural plant communities. Development of Lots 87 through 91 is not expected to result in significant biological impacts; however, Lots 92 through 101 would result in impacts to special-status species and waters of the U.S.

Residential Sub-cluster E Lots 92 through 101: Impacts to Special-status Species

Lots 92 through 101 would impact 8.04 acres of grassland, and 0.17 acre of coastal scrub communities. These communities could support special-status species, and provide foraging and cover habitat for numerous wildlife species. Project activities including grading and building could impact special-status species that may be in the area. Section 5.a.(1) includes mitigation measures to address these impacts.

Residential Sub-cluster E: Indirect Impacts to Waters of the U.S.

As proposed, Residential Sub-clusters E is located at the top of the watershed for Drainages E and a tributary to Drainage E. These drainages maintain characteristics of ACOE jurisdictional other waters and project activities would indirectly impact the drainages by increasing sediment loading during construction. Section 5.a.(1) includes mitigation measures to address these impacts.

(b) Roads

Phase Three of the development includes the construction of two access roads and a driveway. Access Road E would service Lots 87 through 91 and would be located in existing vineyards. Construction of Access Road E is not anticipated to result in any biological impacts. Access Road F would service Lots 99 through 101 and the proposed water tank. Construction of Access Road F would result in impacts to grassland and coastal scrub communities. Impacts associated with Access Road F are addressed in section 5.b.1(c) Water Infrastructure. The proposed driveway for Lot 92 would require installation of a culvert within the OHWM of the tributary to Drainage E (refer to Crossing E.4, Figure V.C.-2).

Lot 92 Driveway: Direct Impacts to Waters of the U.S.

As proposed, Lot 92 would be situated between Drainage E and a tributary to Drainage E. The driveway that would access Lot 92 would cross the tributary and would require installation of a culvert. Installation of the culvert would result in fill and discharge into waters of the U.S. Section 5.a.(1) includes mitigation measures to address these impacts.

e. Future Development

The applicant proposes to construct a dude ranch within proposed Open Space Lot 106. The applicant is not currently requesting a land use permit for the proposed dude ranch, and has not submitted grading or development plans. For the purpose of this EIR, the dude ranch is assessed as a future development proposal, based on project details provided by the applicant and assumptions based on a reasonable worst-case scenario (i.e., building size and height, site disturbance, etc.).

1) Dude Ranch

The proposed location of the dude ranch is Open Space Lot 106, which is approximately 388.5 acres in size, in the far northeast corner of the project site (refer to Figures III-4 and III-12). The dude ranch would include a 75-unit lodging facility, guest service and spa facility, eating facility, classrooms, outdoor fire pit, barbeque, and utilities. Structural elements of the dude ranch would cover up to 7.7 acres. The remaining approximately 380 acres would be utilized for open space and trails. The dude ranch would be accessed via Access Roads I and L, which connect to Main Road 1 and Main Road 2. A secondary access road to the dude ranch would be located approximately 3,000 feet east of the main entrance gate (refer to Figures III-12 and III-17).

(a) Impacts to Waters of the U.S.

Construction of the proposed access road for the dude ranch would require crossing Drainages A and B, likely resulting in the installation of two culverts within these drainages. These drainage features maintain characteristics of ACOE “other waters” and the applicant must receive authorization from ACOE and CDFG prior to implementing any road improvements. Implementation of these improvements would contribute to direct and indirect impacts to waters of the U.S. (refer to BIO Impact 1 and BIO Impact 2).

(b) Impacts to Oak Woodland

Construction of the 7.7-acre dude ranch has the potential to impact approximately 1.3 acres of oak woodland. Impacts would occur as a result of removal or other disturbance of trees during construction and subsequent vegetation management associated with the dude ranch improvements. In addition, the future trail system and recreational uses in the undeveloped portion of proposed lot 106 would impact an unknown amount of oak woodland. Impact estimates associated with the trail system can not be adequately estimated due to the lack of proposed plans. Implementation of the proposed dude ranch would contribute to significant and unavoidable impacts to oak woodland habitat (refer to BIO Impact 3).

(c) Potential Impacts to Special-status Species and Other Wildlife

The proposed dude ranch is located in an area that supports relatively undisturbed annual grassland, perennial grassland, coastal scrub, and oak woodland communities. These communities may support special-status plant or animal species, especially within the northern portions of the proposed Open Space Lot 106. This area would be utilized for recreational activities including horseback riding, hiking, and other trail based activities. These activities tend to cause limited disturbance; however, initial construction of the trail system would result in direct impacts to special-status species. In addition, construction and future uses of the dude ranch structural elements would directly impact the natural communities mentioned above and any special-status species that may exist there, including nesting birds (refer to BIO Impact 4 and BIO Impact 5). Such impacts would result from the initial construction of the structures and future vegetation management for fire protection buffers.

BIO Impact 10 Construction and future uses of the dude ranch would directly impact natural communities that may support special-status species.

BIO/mm-22 Prior to issuance of permits, the applicant shall retain a qualified biologist to conduct botanical surveys of all areas proposed for structural or trail improvements. The botanical surveys shall be conducted in accordance to the *California Department of Fish and Game Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities*.

BIO/mm-23 If special-status plant species or sensitive habitats are identified during the botanical surveys, the applicant shall show on the project plans that all improvements would avoid the rare plant occurrences. If avoidance is not feasible, the applicant shall receive authorization from the appropriate agencies to impact the individuals observed; and, in coordination with the agency prepare any required mitigation plans.

Residual Impact With implementation of the above mitigation measures, direct and indirect impacts to sensitive species and other wildlife would be considered *less than significant with mitigation, Class II*.

6. Cumulative Impacts

The proposed project is located at the upper reach of Los Berros Creek, which is a tributary to Arroyo Grande Creek. These two creeks are designated steelhead critical habitat and currently support steelhead populations. In addition, the watersheds of these creeks support a mosaic of vegetative communities that support various plant and wildlife species. Some of these species are considered rare and afforded protection by regulatory agencies.

Due to the size and complexity of the watersheds and the habitats they support, the cumulative development scenario for the proposed project includes the south county area. Human disturbances within the Los Berros Creek and Arroyo Grande Creek watersheds started with agricultural development, which initiated the growing problem of habitat fragmentation and

decreasing water quality within the creeks. Over the years, the agricultural development within the watersheds has been replaced with residential and commercial development. The residential and commercial development has greatly increased the amount of impervious surfaces in the watershed, requiring the need to concentrate stormwater flows and direct them into the creeks. In order to accommodate the increased flows, Arroyo Grande Creek and its tributaries have been channelized and redirected. The increasing conversion of agricultural land and natural plant communities to residential and commercial development seen in the south county area has exacerbated the problem of habitat fragmentation and decreased water quality within the areas creeks. The proposed project includes converting approximately 150 acres of agricultural land and natural plant communities to impervious surfaces. As discussed in Section V.B. (Water Resources), mitigation is recommended to mitigate potential water supply and water quality impacts to less than significant at a project-specific level. With the implementation of recommended mitigation measures, the project's incremental contribution to this cumulative impact would be significant but mitigable.

As discussed throughout this section, construction of the proposed project would result in impacts to and permanent loss of riparian scrub, freshwater marsh, annual and perennial grasslands, coastal scrub, coast live oak woodland, and aquatic areas. These habitats provide potential foraging and nesting habitat for sensitive wildlife species, and sensitive plant species. Implementation of project-specific mitigation, including an Oak Tree Inventory, Avoidance, and Protection Plan, Oak Tree Replacement, Monitoring, and Conservation Plan, and protection and restoration of riparian habitats would offset the project's effect on natural habitats; however, the creation of a residential community and associated uses, and increased human population would result in the long-term unavoidable loss, degradation, and fragmentation of natural habitats on the project site. The applicant proposes to place lot 106 under an open space easement. Restricting destructive activities and implementing restoration projects within the easement would offset the effect of the proposed project.

Cumulative impacts result from incremental actions that are collectively significant to a resource. Implementation of the proposed project would result in incremental habitat loss and fragmentation of the Los Berros Creek corridor and associated upland oak woodland, grassland, and scrub habitats. Recently approved projects and projects currently under consideration by the county and city of Arroyo Grande are primarily located outside of the Upper Los Berros Creek corridor. Other developments in the south county area are generally within urban areas, agricultural areas, eucalyptus groves, and coastal dune scrub habitats. While the proposed project would result in project-specific significant and unavoidable impacts to biological resources, the cumulative impact is considered significant but mitigable as defined by CEQA, because development with the Los Berros Creek corridor is limited, and implementation of recently approved, and potential projects would not result in impacts to similar habitat types.

BIO Impact 11 The project would contribute to the permanent loss and fragmentation of native plant communities that support special-status species, resulting in a significant cumulative impact.

BIO/mm-24 Prior to approval of subdivision public improvement plans or grading permit issuance, the proposed open space easement for lot 106 shall

include language prohibiting any future agricultural, grazing, residential, or commercial use of the areas that are outside of the proposed 7.7-acre dude ranch area. The easement shall include strict limitations on the development of recreational trails (e.g., width, location, slope), and the development of a habitat restoration plan that focuses on rehabilitating the oak woodland, coastal scrub, and perennial bunch grass communities within the open space area. The easement shall protect the natural plant communities within the open space area in perpetuity.

Residual Impact Residual impacts are considered *significant but mitigable, Class II*.