3.4 BIOLOGICAL RESOURCES

This section focuses on vegetation, wildlife habitats, non-regulated wildlife, and special-status plants and animals as they relate to the MOU Project area. Special-status species occurrence records on the coastal terraces and south-facing slopes of the Santa Ynez Mountains between Goleta and Point Conception are evaluated. Potential project-related impacts are analyzed and mitigation measures are recommended to reduce these impacts to less than significant levels, where possible.

3.4.1 Regional Environmental Setting

The MOU Project area is located on the southern foothills and associated coastal terraces of the Santa Ynez Mountains. The Santa Ynez Mountains are the western extension of the Transverse Ranges, a geomorphic unit characterized by east-west trending faults, folds, mountain ranges and valleys. The coastal plain is composed of uplifted and dissected marine terraces, hills, and valleys, some of which form estuaries and lagoons (Dibblee, 1966). The south-facing slopes and foothills of the Santa Ynez Mountains and the coastal plain are highly dissected by drainage features. Consequently, differences in aspect and degree of slope create a variety of microclimates, often within a small area, which along with spatial variation in soil and bedrock features, control the distribution of native vegetation types and ultimately, the distribution of plant and wildlife species in this region.

The coastal terraces and extreme southern portions of the foothills in the project area are formed on the Sisquoc, Rincon, and Monterey Shales. Soils derived from this formation tend to be deep, heavy clays. The northern extent of the Rincon Shale in the project area terminates abruptly at a steeply sloping outcrop of marine and terrace deposits called the Vaqueros Sandstone and Sespe Formation. Further north (upslope), the Gaviota Formation, Sacate Formation, and Coldwater Sandstone predominate (Dibblee, 1966). These sandstone outcrops are a conspicuous feature of most of the south-facing range and are tilted nearly vertically. Soils from these sandstone formations vary from thin, poorly developed sandy loams to deep loamy sands and may contain embedded calcareous material, alternating with shales, especially in the lower foothills (Shipman, 1981). These sandstone formations often support perched aquifers, which also control local vegetation patterns. The foothills rise steeply to the crest of the range north of this geologic contact. Because of geologic and topographic controls on local watershed development and vegetation, seasonal and perennial drainages on the south-facing slope of the range tend to form deep, parallel canyons that transport material from the crest of the range to the ocean.

The coastal terrace portion of the MOU Project area, lying generally south of Highway 101, is characterized by a level plain that is dissected by seasonal, intermittent, and permanent drainages (e.g., Dos Pueblos Creek and Tomate Canada Creek). The coastal terrace terminates southward in vertical or nearly vertical cliffs at the Pacific Ocean. Stream erosion has dissected the foothill portion of the project area (generally north of Highway 101), to produce a series of parallel, north-south trending ridgelines on steeply sloping hills.

The eastern edge of the project area lies approximately two miles west of the western border of the City of Goleta and is bordered on the south by the Pacific Ocean and on the remaining sides by a combination of agriculture (livestock grazing and orchard production), open space, and low-density residential development. Nearly all portions of the Santa Barbara Ranch (SBR) property have been subjected to livestock grazing, row-crop cultivation, and orchard production for decades.

3.4.2 Existing Conditions

3.4.2.1 Methodology

3.4.2.1.1 General Biological Resources. The following description of existing biological resources to be found in the MOU Project area is based upon field surveys for this document, previous field surveys of the study area and surrounding environs by other biologists, and a review of pertinent scientific literature, technical reports, and environmental documents prepared for a variety of projects in the coastal area between Goleta and Gaviota. Examples of the latter category of documents include WESTEC (1983, 1986); ERT (1984); ADL (1984); Howald et al., (1985); Chambers Group, Inc. (1986); URS (1987); McClelland Engineers (1988); California Coastal Commission (2002); SAIC (1990, 2004, 2005); Hunt (1991); Tierney (1991); Rooney Engineering, Inc. et al. (1991); Dames & Moore (1991); and Aspen Environmental Group (1993; 1996). General references included Munz (1974); Smith (1998); Holland (1986); SBBG (1988a,b); Wiskowski (1988); CNPS (2001); and Hickman (1993) for plants and Hall (1981); Grinnell and Miller (1944); Jameson and Peeters (2004); Lehman (1994); Williams (1986); Jennings and Hayes (1994); and Ingles (1965) for wildlife. Additional sources of information on local species occurrences included the California Natural Diversity Data Base for the Dos Pueblos Canyon, Goleta, San Marcos Pass, Lake Cachuma, Santa Ynez, and Tajiguas quadrangles (CNDDB, 2005); University of California Museum of Systematics and Ecology collection records; Santa Barbara Museum of Natural History collection records, and discussions with knowledgeable agency personnel and local biologists.

3.4.2.1.2 Field Methods and Vegetation Mapping. Site visits by vehicle and on foot on February 7, 2005; March 16, 2005; March 21, 2005; March 29, 2005; April 8, 2005; and July 17, 2005 cumulatively covered the entire MOU Project area and the adjacent Dos Pueblos Ranch (DPR) property, which is considered as part of the Alternative 1 design discussed elsewhere in this Revised Draft Environmental Impact Report (RDEIR). The visits were made in order to conduct reconnaissance-level surveys of vegetation and water bodies (Donald Mitchell – three site visits) and wildlife (Lawrence E. Hunt – amphibians, reptiles, birds, and mammals – four site visits; David Kisner – birds – one site visit). All parts of the project area were visited at least once during these surveys. All natural and man-made aquatic habitats found in the MOU Project area were surveyed for amphibian larvae and aquatic invertebrates on March 29, 2005 and April 8, 2005 using dip-nets. All wildlife species or their sign (i.e., burrows, scat, tracks) encountered during field surveys were noted. In general, the potential occurrence of special status, as well as non-regulated, plant and wildlife species was evaluated by noting the quality, quantity, degree of fragmentation, and land use of habitats in the project area. Focused, protocol-level surveys for

particular special-status wildlife species were not conducted as part of this document because other consulting firms hired by the applicant (Holland, 2003) and the County of Santa Barbara (SAIC, 2004; 2005) had previously conducted extensive plant and wildlife surveys on the SBR property.

3.4.2.1.3 Characterization of State and Federal Jurisdictional Waters. Existing information was reviewed and limited field verification was conducted to delimit the boundaries of hydrogeologic features (i.e., watercourses and water bodies) and associated vegetation types that represent federal and State jurisdictional waters that occur within the study area. Wetland delineations of the SBR property and limited portions of the DPR property were conducted by SAIC (2004, 2005) and their analysis was incorporated into this RDEIR. Field work for this section of the RDEIR was conducted concurrently with the vegetation mapping and characterization conducted on February 7, 2005; March 16, 2005; March 29, 2005; and April 8, 2005. The acreages of Federal and State jurisdictional waters that may be affected by project construction were estimated using the following procedures:

- Sketch the watercourse and waterbody features on orthorectified aerial photograph bases at 1 inch equals 0.25 mile (1:15,840) (AirPhotoUSA, flown October 2004, 1 foot resolution).
- Visually estimate the upreach and lateral limits of Federal and State jurisdictions for these features based on the indicators for Federal and State waters.
- Characterize the existing condition hydrologic parameters for identified hydrogeologic features including designations such as ephemeral, intermittent, and perennial watercourses, water impoundments, swale, etc.
- Cross-reference these data sets with National Wetland Inventory, Cowardin System (1979) classification and mapping information for the Dos Pueblos Canyon USGS 7.5-minute series topographic quadrangle available from WetLandMAPS.com (www.charttiff.com/WetLand Maps/main.html).
- Cross-reference field observations and mapping with hydrogeologic interpretation of the indicated watercourse flow paths and waterbody boundaries on topographic exhibits of the study area prepared by the applicant.
- Cross-reference with the extents of riparian vegetation and prevalent hydrophytic types mapped for the vegetation mapping and vegetation characterization task.
- Cross-reference field observations and mapping for consistency with the results provided in SAIC (2004, 2005) and make appropriate adjustments.
- Overlay preliminary design project construction footprint areas upon areas delimited as potential Federal and State jurisdictional waters and estimate maximum acreages of potential affects for each individual site. Summarize this information in a potential impacts analysis table.

As described above, existing information was reviewed and limited field verification was conducted to delimit the boundaries of hydrogeologic features (i.e., watercourses and water bodies) and associated vegetation types that represent federal and State jurisdictional waters that occur within the study area. Jurisdictional waters on the SBR property were characterized in SAIC (2004, 2005).

After the original SAIC fieldwork on the property (2004) and release of the first Draft EIR for this project in June 2006, several events influenced the consideration of wetlands or jurisdictional waters on this property. These included a heightened attention to the strict interpretation of the County's Local Coastal Program Policies related to wetlands, publication of additional guidance from the U.S. Army Corps of Engineers (2005) regarding wetland identification, at least one and perhaps several leaks from pipelines to water livestock on the property, and the publication of hydric soils lists by the National Resource Conservation Service (2007). These changes led to additional fieldwork, consultations with County and agency staff, and additional research regarding wetlands. The issue of wetlands is made more complex due to naturally changing physical conditions on the property as well as the need for policy interpretation that is independent of the biology or biological methods used to assess wetlands.

Figure 3.3-1, in Section 3.3 (Hydrology and Water Quality) of this RDEIR depicts watersheds, watercourses, water bodies, and nearshore marine areas, which are wholly and partially within the MOU Project area. Section 3.4.2.3 describes the State and Federal waters on the MOU Project property as originally mapped by SAIC (2005) with updates based on the more recent work.

3.4.2.2 Vegetation

The following analysis of special-status plants and animals known or potentially occurring in the project area was conducted at the species and subspecies level. Common and scientific names follow Hickman (1993) and Smith (1998) for plants; Stebbins (2003) for amphibians and reptiles; National Geographic (1999) for birds, and Jameson and Peeters (2004) for mammals. Vegetation types are classified according to the Holland (1986), which is used for the California Department of Fish and Game's Natural Diversity Database (CNDDB).

3.4.2.2.1 Overview of Project Area Vegetation. Although the project area is mostly vacant land and supports a variety of plant and wildlife habitats, extensive portions of the project area, especially the coastal terraces, have been subjected to decades of intensive agricultural practices and livestock grazing. Consequently, the distribution, physiognomy, and species composition of existing vegetation types have been significantly altered from their original state. Areas that currently are, or historically were, used for orchards, dry-farming, and pasture displaced native grasslands, wildflower fields, coastal scrub, oak woodland, and riparian vegetation types over a century ago. Consequently, non-native grasses and ruderal species (i.e., "weeds") now comprise the dominant floristic elements of most plant communities in the disturbed portions of the project area. Non-native annual grassland constitutes the most extensive vegetation type in the project area and covers highly disturbed areas that formerly

supported scrub or woodland plant communities. Coastal scrub now is present as localized patches in thin, rocky soils on moderate to steeply sloping ground along the sides of the minor canyons where livestock or row crop agriculture could not reach. These patches may be widely separated from other such patches by non-native grasslands and ruderal fields on the intervening ridgelines. Hillside landforms (found north of Highway 101) were contoured to support orchard cultivation and these contours are visible long after the orchards have been removed and the areas re-colonized by annual grasses. The coastal terrace portions of the project area are predominantly vegetated by non-native annual grassland and ruderal vegetation and appear to have been subjected to tillage and/or irrigation in the past that removed the original scrub and woodland cover. Local surface water and groundwater resources were affected decades ago by the creation of water impoundments and groundwater extraction for agricultural purposes, and this has likely affected the distribution, areal extent, and species composition of wetlands and riparian vegetation areas associated with these water sources.

The mapped vegetation types on the MOU Project area are shown in Figure 3.4-1 (existing vegetation as mapped by SAIC), Figure 3.4-2 (state and federal wetlands as mapped by SAIC in 2004), and Figure 3.4-3 (wetlands mapped by URS in 2007).

3.4.2.2.2 Vegetation Types.

Previous Studies. Holland (2003) conducted a preliminary survey of the vegetation and flora of SBR. They mapped vegetation using orthophotoquads and aerial photographs in the field and on computer, using ArcView. They also mapped most of the major features on the site, such as property lines, roads, and creeks using a Global Positioning System (GPS) unit and aerial photographs in the field. They ground-truthed the mapping units and were able to calculate cover and extent of each vegetation type. Holland (2003) identified seven vegetation categories in his report.

SAIC (2004, 2005) conducted numerous site visits to the SBR property between mid-April 2004 and mid-July 2004 and between early December 2004 and mid-March 2005. SAIC refined Holland's (2003) vegetation map using Holland (1986) vegetation categories with adaptations appropriate to the site and local region to identify nine vegetation types on the MOU property and adjoining areas.

SAIC assessed vegetation types while walking meandering surveys over the entire site. Meandering surveys are a standard field survey method used to evaluate large areas of land where focused transect-type surveys are unnecessary or impractical. California Native Plant Society (CNPS) protocols (CNPS, 2003) for assessing the dominant plant communities were applied at selected areas throughout the project area in order to confirm the vegetation classification used by Holland (2003). They used aerial photographs, flown September 2002, to designate vegetation boundaries in the field and then incorporated this information into a Geographic Information System (GIS) layer using ArcView. In April and May, 2004, SAIC used calibration transects to determine percent cover of "native grassland species" in identified areas, then sampled within native grassland polygons using point-intercept (hit/miss) method to

confirm >10 percent relative cover of "native grassland species" (County of Santa Barbara [2002] threshold). Areas of "native grassland species" >0.25 acre were mapped. The primary County indicator for native grasslands is purple needlegrass (*Nassella pulchra*). There has been considerable controversy regarding "native grassland species" issues in recent projects in Santa Barbara, e.g., the Preserve at San Marcos Project (Envicom, 2005a,b). The terminology employed by SAIC to sample and map native grasslands in the project area, was generally consistent with those employed by Envicom (2005a,b) for the Preserve at San Marcos Project, i.e., they documented presence or cover of the predominant native grass species. SAIC sampled and mapped areas containing native grass species, and noted additional native grassland species. SAIC also mapped general areas where native grassland species were present, but did not meet the County thresholds for percent cover or areal extent. SAIC also conducted delineations of potential wetlands throughout the project area and mapped the results of these surveys in Figure 3 of their report (SAIC, 2005).

Surveys Conducted for this Report. The present report conducted meandering walking surveys of the MOU Project area using aerial photographs of the project area (flown October 2004), to verify the vegetation categories reported by SAIC (2005), as well as to map features not mapped by SAIC. Figure 3.4-1 shows vegetation types on the MOU Project area that would be affected by the proposed project, based on the vegetation types identified by SAIC (2004; 2005). The areas mapped by SAIC were not remapped for this report. Figure 3.4-2 shows State and Federal jurisdictional waters, as mapped by SAIC (2005).

Table 3.4-1 compares 13 vegetation types and feature classifications used by SAIC (2004, 2005) in their surveys of the SBR property with 17 categories described in this document. The latter categories were used in mapping of the combined SBR and DPR properties which are addressed in Alternative 1. In addition to a discussion of vegetation types found in the project area, the existing condition and extent of vegetation is discussed for each of the project area regions in the following sections.

Coast Live Oak Riparian Woodland (CORW). This vegetation type is dominated by coast live oak (*Quercus agrifolia*) in the project area. Associates within this community vary according to canopy closure and aspect. Shade-tolerant understory species such as snowberry (*Symphoricarpus mollis*), canyon sunflower (*Venegasia carpesioides*), poison oak (*Toxicodendron diversilobum*), virgin's bower (*Clematis ligustifolium*), and wild blackberry (*Rubus ursinus*) frequent areas where little direct sunlight penetrates the canopy. Openings within the woodland generally are vegetated with shrubs characteristic of the surrounding scrub or grassland communities, such as non-native grasses such as red brome (*Bromus madritensis* ssp. *rubens*) and slender wild oats (*Avena barbata*), and herbs such as Chinese houses (*Collinsia heterophylla*). It is likely that historic grazing and agricultural practices eliminated and/or fragmented much of the historic oak riparian woodland originally found in the project area so that now it is patchily distributed along the bottoms of narrow canyons and ravines where it functions as a transitional habitat between mesic and xeric environments. This plant community occurs in association with Coast-live Oak and Sycamore Riparian Woodland (COSRW) on bottomland terraces, and intergrades with Coastal Scrub (CS) and Coast-live Oak Woodland (COW) along the side slopes of watercourses and ravines in the

Table 3.4-1
Vegetation Types Found in the Project Area by SAIC (2004, 2005) and for this Report

SAIC Report Vegetation Types and Features Classifications (SBR Property only)	Corresponding Vegetation Types and Features Classifications and Codes for this RDEIR	Total Acres within MOU Project Area	Total Acres affected by MOU Project
	Coastal Bluffs (not mapped)	3 acres (The area between vegetation mapping and property boundary is approx. 9.95 acres, most of which is beach.)	0.02 (beach access trail and stairway)
Coast-live Oak Riparian Woodland	Coast-Live Oak Riparian Woodland (CORW)	8.5 ac – (5.3 ac Lot 103 downstream from reservoir, includes small area outside property, plus 3.2 ac in Lot 57)	No direct effects. (Potential roadway sedimentation on 0.33 acre adjacent to access road at Lot 47.)
Coastal Scrub	Coastal Scrub (CS)	16.6 ac – generally northeastern area north of Highway 101	0.32
Disturbed/Developed	Disturbed/Developed (DD)	9.0 ac – areas in Lots 108, 133, 132, 43, 42	7.67
Native Grassland (meets Santa Barbara County criteria and thresholds)	Native Grassland (native grasses predominant; meets Santa Barbara County criteria and thresholds)	12.5 ac (4 ac on Lot 57 and margins along coastal terrace drainages)	0.22 (beach access trails, temporary disturbance for drain lines)
Native grasses present but with less than 10 percent cover (does not meet Santa Barbara County criteria or threshold)	Native grasses present, but not predominant (not mapped-see text)	Not mapped. Small isolated patches in non-native grassland; margins of coastal scrub.	
Non-native Grassland	Non-native Grassland and Ruderal (NNG/R)	215 ac – (171 acres south of Hwy. 101)	76.53
Non-native Grassland/Weed Dominated	Ruderal-dominated and Non-native Grassland (R/NNG)	166 ac (most of area north of Highway 101)	61.05
Open Water	Aquatic Habitat (AH)	No permanent water bodies. See Figures 3.4-2 and 3.4-3	
Orchard	Orchard (OR)	20.1 ac (north of Hwy. 101)	0.45

Table 3.4-1 (Continued)
Vegetation Types Found in the Project Area
by SAIC (2004, 2005) and for this Report

SAIC Report Vegetation Types and Features Classifications (SBR Property only)	Corresponding Vegetation Types and Features Classifications and Codes for this RDEIR	Total Acres within MOU Project Area	Total Acres affected by MOU Project
Planted Trees	Planted Trees and Horticulture (PTH)	33.9 ac (eucalyptus and other species in windrows, misc. other groves)	5.52
Willow Riparian Woodland	Willow Riparian Scrub and Woodland (WR)	0.75 ac (with CORW downstream from reservoir)	No direct effects. (Potential roadway sedimentation on 0.06 acre adjacent to access road at Lot 47.)
Wetlands	Prevalent Hydrophytic Vegetation (PHV)	See Figure 3.4-3 and Table 3.4-2. Total is approx. 2,500 sq. ft.	0

project area. In the MOU Project area, the easterly tributary of Dos Pueblos Creek downstream from the ranch reservoir contains this vegetation type.

Coastal Scrub (CS). Soft-leaved shrubs that are drought-deciduous dominate this plant community. Within the project area, it is dominated by coyote brush (*Baccharis pilularis*), saw-toothed goldenbush (*Hazardia squarrosa*), coastal goldenbush (*Isocoma menziesii*), California sagebrush (*Artemisia californica*), coffeeberry (*Rhamnus californica*), lemonade berry (*Rhus integrifolia*), Mexican elderberry (*Sambucus mexicana*), poison oak, deerweed (*Lotus scoparius*), morning-glory (*Calystegia macrostegia*), purple sage (*Salvia leucophylla*) and black sage (*Salvia mellifera*). The species composition and diversity of these typical shrub associates varies from patch to patch within the project area, according to edaphic and microclimatic conditions, selection pressure due to past and present grazing or cultivation intensity, and degree of ruderal invasion. The herbaceous and grass components of this plant community typically include both native and ruderal species, such as needlegrass (*Nassella* spp.) and brome grasses (*Bromus* spp.). A conspicuous association between native grass and coastal scrub was noted in upland areas in the project area north of Highway 101. In the grasslands, non-native annual grasses overwhelmingly predominated, however, native perennial bunchgrasses (e.g., needlegrass [*Nassella* sp.]), dominated along the narrow contact zone between grassland and coastal scrub where allelopathic chemicals in the native shrubs appear to prevent or inhibit non-native grasses from growing.

Disturbed and Developed (DD). This descriptor is not a vegetation type but is included for the purpose of delimiting roads, dwellings, and other structures on the figures.

Native Grassland. The Santa Barbara County Environmental Thresholds and Guidelines Manual (2003:43) defines native grasslands as areas where "native grassland species" comprise 10 percent or more of the total relative cover. Areas of native grasslands over 0.25 acre in size qualify for special protection. Holland (2003) surveyed most of the project area between March 2003 and mid-July, 2003 and found no areas where native grasses exceeded 10 percent of the total plant cover or otherwise met the County standards for native grassland. They do not describe in detail how they arrived at this conclusion, but presumably quantitative measures of plant cover and extent were not employed. SAIC (2004, 2005) conducted quantitative surveys for native grasses in extensive portions of the project area. They found that native non-grass herbaceous species did not contribute significantly to the relative cover calculation in the native grassland areas they identified and had little or no effect on the subsequent mapping of the boundaries of native grasslands. SAIC concluded that approximately 12.5 acres of native grasslands that meet the County criteria and thresholds are present on the coastal portion (south of Highway 101) of the project area. They identified three native species, purple needlegrass (*Nassella pulchra*), alkali rye (*Leymus triticoides*), and meadow barley (*Hordeum brachyantherum*) as the predominant native perennial grasses in these native areas. Other native grassland species found by SAIC included: golden stars (*Bloomeria crocea*), *Brodiaea terrestris*, purple owl's clover (*Castilleja exserta*), bluedick *(Dichelostemma pulchella)*, yard rush (*Juncus occidentalis*), California plantain (*Plantago erecta*), and blue-eyed grass (*Sisyrinchium bellum*) (SAIC, 2005). All of the areas they identified as native grassland are closely associated with ravines and seasonal drainages located along the southern edge of the coastal plain abutting the coastal bluff and/or proposed Lot 57 located between Highway 101 and Dos Pueblos Canyon Road (see Figure 3.4-1). It appears that previous and existing land use practices, along with almost constant grazing pressure, have extirpated native bunchgrasses as a dominant component of grasslands throughout much of the project area.

A more typical situation occurred where needlegrass was observed either as a sparse component of non-native annual grassland, or more densely though less extensively distributed along the interface between annual grassland and coastal scrub. SAIC (2004, 2005) depicts this vegetation category as "native grasses present, but with less than 10 percent cover." Most of these areas containing a lower density of native grasses are found in broad margins around the mapped native grasslands adjacent to the coastal drainages in the southernmost part of the project area, although isolated patches of native grasses occur throughout the non-native grasslands and adjacent to the coastal scrub vegetation. In the latter areas, native bunchgrasses may find refugia from grazing and competition with non-native annual grasses and weeds as a consequence of allelopathy from native shrubs. Both types of distributions were observed in the south-central portions of the coastal terrace south of Highway 101 during field surveys for this report.

Non-native Grassland and Ruderal (NNG/R). This is the most extensive plant community in the project area. It is primarily composed of non-native annual grasses and forbs, however, native forbs and grasses are also present. Grazing, fire, or other regular disturbance typically maintains annual grassland. In areas with less consistent disturbance, coastal scrub shrubs may recolonize the grassland areas, but non-native species remain a common element among the shrub clusters. The dominant flora includes wild oats (*Avena* spp.), brome grasses, particularly

ripgut brome and red brome (*Bromus diandrus* and *B. madritensis* subsp. *rubens*, respectively), foxtails (*Hordeum* spp.), ryegrass (*Lolium* spp.), Harding grass (*Phalaris aquatica*), and fescues (*Vulpia* spp.), with low growing annual ruderals occurring as co-dominants. Purple needlegrass (*Nassella pulchra*), a perennial that was probably the dominant native grass in the project area prior to grazing, is scattered among the introduced species, but percent cover of this species does not meet the County thresholds for native grasslands. Bur clover (*Medicago polymorpha*), filaree and storksbill (*Erodium*), sweet-clover (*Melilotus*), mustard (*Brassica*), and thistles (*Carduus, Centaurea, Salsola, Silybum*) are frequent introduced forbs. Some of the more common native forbs found here include lupine (*Lupinus*), filago (*Filago*), dove weed (*Eremocarpus*), common tarweed (*Hemizonia fasciculata*), brodiaea (*Dichelostemma capitatum*), and clovers (*Trifolium* spp.).

Ruderal Dominated and Non-native Grassland (R/NNG). Although not recognized as a distinct plant community, ruderal species comprise an assemblage of opportunistic colonizing plants that typically occur on areas that are subjected to constant disturbance. Ruderal species occur extensively throughout the project area. In areas that formerly were farmed or grazed, but where grazing was halted, ruderals comprise almost 100 percent of the plant cover. The contrast between R/NNG and NNG/R can be quite marked in portions of the project area, particularly at fencelines that separate grazed from non-grazed areas. Ruderals also are a common component of the vegetation alongside roadsides throughout the project area, as well as in areas of recent or historic slope failure on hillsides. Dominant ruderal plants include Italian thistle (*Carduus pycnocephalus*), yellow star thistle (*Centaurus solstitialis*), milk thistle (*Silybum marianum*), poison hemlock (*Conium maculatum*), black mustard (*Brassica nigra*), sweet fennel (*Foeniculum vulgare*), veldt grass (*Ehrharta calycina*), Harding grass, smilo grass (*Piptatherum mileaceum*), and sweet-clover (*Melilotus* spp.).

Wetlands or Aquatic Habitat (AH). Aquatic habitat occurs within the water impoundments, irrigation reservoirs, and the flowing reaches of streams. Rooted and emergent hydrophytic (i.e., "water plant") vegetation is generally absent in the aquatic habitats except along the margins of impoundments and streams. SAIC (2005) conducted wetland delineations of aquatic habitats in the project area and classified the unnamed eastern tributary of Dos Pueblos Creek, Tomate Canada Creek, and the unnamed drainage that borders the eastern edge of the project area north of Highway 101, as well as a number of isolated water bodies in the northeastern, eastern, and southern edges of the coastal terrace south of Highway 101, as either waters of the United States, federal or state wetlands, or state wetlands. Figure 3 in SAIC (2005) shows aquatic habitat features in the project area. Figure 3 from SAIC (2005) is included in this RDEIR as Figure 3.4-2. Since the original mapping by SAIC, wetland conditions changed in the coastal terrace portion of the property south of Highway 101. Figure 3.4-3 presents an updated picture of the wetland areas on the property, as of spring 2007. Table 3.4-2 provides a summary description of each wetland area mapped in Figure 3.4-3. Section 3.4.2.3.3 below describes observations at these areas. All of the areas identified either as wetlands by SAIC or as seasonal water bodies in the first Draft EIR, as well as similar areas identified in subsequent field visits, are listed in Table 3.4-2. Some of these features are clearly associated with intentional man-made discharges of water for the purpose of watering livestock (cattle and horses) on the property.

Table 3.4-2
Wetlands, Seasonal Water Bodies, and Stock Ponds in the MOU Project Area

Reference	Label	Description
Figure 3.4-2	1,2,3, and 5	Isolated seeps associated with coastal drainage or bluff areas.
Figure 3.4-2 Figure 3.4-3	4 SAIC 4	State Wetland, associated with discharge from culvert under UPRR tracks. Approximately 120 square feet in area.
Figure 3.4-2 Figure 3.4-3	7 SAIC 7	Wetlands of the US, not affected by project, in pasture of Lot 66. (Commonly referenced as the "duck pond.")
Figure 3.4-2 Figure 3.4-3	8 SAIC 8	State Wetland, downstream from culvert under UPRR tracks.
Figure 3.4-2 Figure 3.4-3	9 SAIC 9	Originally mapped as a state wetland on the basis of standing water and vegetation. Appears to have been pipe leak. No wetland parameters observed in fall of 2006 or spring of 2007.
Figure 3.4-2 Figure 3.4-3	10 SAIC 10	Wetlands of US, associated with drainage in northeast corner of Lot 97.
Figure 3.4-3 Section 3.4.2.3.	LH a (a)	Circular water body, 200 square feet, 24" deep, outside corner where Langtry Ave. turns to west south of UPRR tracks. Appears to be stock pond constructed for livestock.
Figure 3.4-3 Section 3.4.2.3.3	LH b (b)	Discussed in first Draft EIR (2006) as seasonal water body, 150 square feet, inside corner of Langtry Ave. turn to west south of tracks. No wetland parameters observed in fall of 2006.
Figure 3.4-3 Section 3.4.2.3.3	LH c1, c2 (c)	Two livestock watering troughs (bathtubs), allowed to overflow regularly creating watering ponds.
Figure 3.4-3 Section 3.4.2.3.3	LH d (d)	Seasonal water body. Pool of 2,000 square feet observed in 2005, n. side of tracks, west of Langtry. In UPRR r/w, not affected by project.
Figure 3.4-3 Section 3.4.2.3.3	LH e (e)	Seasonal water body. 900 square foot pool observed in 2005. Soil compacted from previous ranch staging and storage area. Harding grass dominant.
Figure 3.4-3 Section 3.4.2.3.3	LH f (f)	Seasonal water body. 500 square foot pool observed in 2005. Much larger pool in fall 2006; from large pipe leak. Dry in March 2007. Forms channel and pond towards south end.

Table 3.4-2 (Continued)
Wetlands, Seasonal Water Bodies, and Stock Ponds in the MOU Project Area

Reference	Label	Description
Figure 3.4-3	Lot 97 Pipe	Chronic leak in stock watering pipe.
Figure 3.4-2	11	Riparian habitat associated with eastern tributary of dos Pueblos Creek.
Figure 3.4-2	12, 13, 14	Isolated seeps and wetland vegetation along Tomate Canada drainage north of Highway 101.
Figure 3.4-2	15, 16, 17	Riparian vegetation associated with unnamed drainage crossing northeast corner of property.

Orchard (OR). The majority of the orchards found in the project area are currently planted in avocado. The orchards are in varying stages of productivity and overall health within the study area reflecting different levels of orchard maintenance and plant pathological conditions due to pathogens and other stressors.

Planted Trees and Horticulture (PTH). Human occupation of the study area has resulted in the planting of several tree and shrub horticultural varieties for the purposes of wind protection, shading, and aesthetic landscaping. This vegetation type mostly occurs as windrows in an orchard setting and around residences east and west of lower Dos Pueblos Creek (south of Highway 101), as well as along the Union Pacific Railroad (UPRR) tracks. Typically, horticultural plant varieties require maintenance for persistence in an area; however, some varieties can disperse to adjacent areas as "escapes" and become successfully established. This case is demonstrated along Dos Pueblos Creek and the unnamed eastern tributary where several PTH elements, including *Eucalyptus* spp., are components of the riparian-associated vegetation. When planted in dense windrows, eucalyptus may be important habitat elements for nesting/roosting raptors and monarch butterflies.

Willow Riparian Scrub and Woodland (WS). Shrubby to treelike growth forms of willows (*Salix* spp.) occur as patch mosaics, understory strata within riparian areas, and as isolated patches in mesic areas of small upland ravines. As a hydrophyte, willows require inundated or saturated soils for a sufficient duration to permit seed germination and seedling establishment. Consequently, sapling and adult growth stages require access to a permanent ground water source, as is likely the case for willows observed growing in ephemeral drainages within the project area.. The easterly tributary to Dos Pueblos Creek, downstream from the DPR reservoir, contains a small area of this vegetation.

Coastal Bluff Scrub (CBS). This vegetation type is limited in the project area to the coastal bluff faces. The vegetation is typically very dense and wind-cropped. Common elements include lemonade berry, California sunflower (*Encelia californica*), cliff aster (*Malacothrix saxatilis*), and quail bush (*Atriplex lentiformis*) are characteristic plant species of this vegetation type. None of this vegetation type was mapped by SAIC on the MOU Project area, but there are small isolated areas along the bluffs to the west of the property.

3.4.2.2.3 Summary of Occurrence of Vegetation Types. Coast live oak riparian woodland, southern willow scrub, coastal bluff scrub, and wetlands are considered sensitive plant communities by federal, state, and local resource agencies. The composition of these communities was discussed in the preceding section. Their location on or near the MOU Project site is summarized below.

MOU Project Area North of Highway 101. SAIC (2004, 2005) described and mapped in detail the vegetation over much of this portion of the project area (see Figure 3.4-1). The most prevalent vegetation types based on areal extent within this portion of the project area are non-native grassland (both NNG/R and R/NNG), orchards (OR), and coastal scrub (CS). Aquatic habitat (AH) is associated with the water impoundments, north of the MOU Project area, and

Coast-live oak riparian woodland is found just downstream from the large ranch reservoir in the eastern tributary to Dos Pueblos Creek which extends across this part of the project area, and under Highway 101 (Figure 3.4-1). Willow riparian scrub is also found in this drainage.

MOU Project Area South of Highway 101. SAIC (2004, 2005) describes and maps vegetation in this portion of the MOU Project area as predominantly non-native annual grassland. Planted trees (mostly blue gum [*Eucalyptus globulus*]) form extensive, narrow windrows around the margins of this area. SAIC mapped at least 12.5 acres of native grassland that meets County standards in this area (i.e., greater than 10 percent native grass in areas over 0.25 acre). The riparian corridor associated with the eastern tributary of Dos Pueblos Creek is classified as coast live-oak riparian woodland by SAIC (2004, 2005), and extends from under Highway 101, across Lot 57, and into the Morehart and DPR properties to the west.

3.4.2.3 Wildlife Habitats

Functionally, wildlife habitats represent a combination of the vegetation categories described in the previous sections because animal species do not typically subdivide habitat use along taxonomic categories and rarely restrict use to a single habitat type. Several types of wildlife habitats occur in the project area. Native habitats include annual grassland (albeit dominated by non-native annual grasses), riparian oak woodland, coastal sage scrub, and chaparral. Non-native habitats include ruderal habitats disturbed by human activities, such as fallow agricultural fields, roads, road shoulders, ditches, and work areas.

In general, the southern portions of the MOU Project area, particularly those areas south of Highway 101 and the lower foothills north of Highway 101, have been subjected to long-term, chronic habitat disturbance from agricultural and livestock grazing activities. Major barriers to wildlife movements in the project area are transportation corridors (Highway 101 and UPRR tracks) that have been in place for a century or more. The highway and railroad tracks more or less isolate populations of ground-dwelling animals, such as amphibians, some bird species, and mammals occurring north and south of these features. Most of the southern half of the MOU Project area, as well as large portions of the northern half of the MOU Project area, have a long history of habitat loss, fragmentation, and chronic disturbance. The northern portions of the project area, portions of which are contained in the designated ACE and Open Space Conservation Easement (OSCE) areas, tend to be less fragmented by human activities and retain some or most of their connections to extensive unfragmented open space and agricultural lands to the north (on DPR), which ultimately connect to the National Forest lands farther to the north.

3.4.2.3.1 Ruderal/Landscaping/Orchards. Typically, ruderal habitats within the project area are of relatively low value to most wildlife species. These habitats typically either are devoid of vegetation or are vegetated with annual weedy plants or ornamental species of limited value to wildlife. Because of regular disturbance and lack of structural or biotic diversity, ground-dwelling wildlife species are typically unable to establish permanent, self-sustaining populations in such habitats. Species that are able to reside or forage in ruderal habitats include common,

geographically widespread species such as Pacific tree frog, western fence lizard, side-blotched lizard, gopher snake, house finch, American goldfinch, white-crowned sparrow, Virginia opossum, California ground squirrel, Botta's pocket gopher, deer mouse, western harvest mouse, house mouse, striped skunk, and coyote.

Certain landscaping shrubs and trees, including orchards, may provide valuable roosting, nesting, and foraging habitat for a number of avian species (e.g., raptors) and monarch butterflies. In particular, the eucalyptus windrows associated with the UPRR tracks on the coastal terrace south of Highway 101 and elsewhere north of the highway provide roosting and nesting sites for red-tailed hawks, turkey vultures, white-tailed kites, great horned owls, and other raptors.

3.4.2.3.2 Grassland. This is the most extensive type of wildlife habitat found in the project area. Grasslands, whether dominated by native or non-native grasses, support relatively high wildlife diversity because they are spatially extensive and typically form vegetative mosaics with scrub, oak savannah, and riparian habitats that, collectively, support high wildlife diversity. The project area supports extensive grassland habitats, including at least 12.5 acres of native perennial grassland classified and mapped by SAIC (2005) on the coastal terrace south of Highway 101. These native grassland areas are distributed as ten patches exceeding 0.25 acre in size scattered throughout this portions of the project area, but occur primarily south of the UPRR tracks along the coastal drainages and on Lot 57 between Dos Pueblos Canyon Road and Highway 101 (see Figure 3.4-1).

A number of reptiles are expected to occur in native and non-native grassland and ruderal habitats in the project area, including the side-blotched lizard, western whiptail, western skink, gopher snake, common king snake, and western rattlesnake. Because they are capable of supporting high densities of prey (insects and small mammals), annual and native grasslands in the project area provide important foraging habitat for a number of raptor species, particularly where associated with roosting/nesting sites in close proximity to grasslands, as is the case with eucalyptus windrows scattered throughout this area. Typical species found in this habitat in the project area include red-tailed hawk, red-shouldered hawk, turkey vulture, American kestrel, white-tailed kite, mourning dove, western kingbird, horned lark, American crow, northern mockingbird, northern oriole, and house finch. Mammals that are expected to occur in grassland habitats in the project area, including brush rabbit, Audubon's cottontail, California ground squirrel, deer mouse, California vole, western harvest mouse, striped skunk, bobcat, coyote, and American badger.

3.4.2.3.3 Seasonal Water Bodies. Grasslands in the project area, especially those south of Highway 101, support seasonal water bodies. Seasonal water bodies, including State and Federal jurisdictional waters, are shown on Figures 3.4-2 and 3.4-3, and are summarized in Table 3.4-2. SAIC (2005) mapped several of these water bodies on the MOU property as wetlands, classifying them as either Waters of the United States, Federal and State Wetlands, or State Wetlands, depending on the presence of hydric soils, hydrophytic vegetation, and/or hydrology. Wetland delineations were not performed on any of these water bodies for the present report. These features are called seasonal water bodies for the purposes of this report because, although

most of them appeared to be man-made, they all filled naturally from surface runoff during storm events.

In addition to those wetlands mapped and classified by SAIC (2005), field surveys in 2005 for the first Draft EIR found seven other seasonal water bodies in grasslands south of Highway 101 that were not mapped or evaluated by SAIC. These water bodies contained amphibian larvae and aquatic invertebrates, including the Pacific tree frog, western toad, and, at some sites, California clam shrimp (*Cyzicus californicus*), a freshwater crustacean found in natural vernal pools and man-made seasonal pools. As originally found and described in the first Draft EIR in mid-2006, these included:

(a) A 200 square foot pool approximately 24 inches deep located along the south side of "Langtry Avenue" at the point where it curves westward, about 375 feet south of the UPRR tracks. This feature was easily relocated in the fall of 2006 and spring of 2007, and contained water at both field visits. The pipe delivering water to the pools in (c) below extends along Langtry Avenue and may be the source of water at this location.

(b) An approximately 150 square foot pool less than 12 inches deep along the north side of "Langtry Avenue" at the same location as (a). This feature was dry and had no evidence of wetland parameters when visited in the fall of 2006.

(c) Two pools used as water sources for livestock north and south of the west-trending portion of "Langtry Avenue" approximately 500 feet west of feature site (a). These are two bathtubs used as watering troughs, and are allowed to overflow creating pools on the ground.

(d) An approximately 2,200 square foot linear pool located 50 feet west of the intersection of "Langtry Avenue" and the UPRR tracks, along the north side of the tracks in the railroad right-of-way. This feature was dry when visited in the fall of 2006 and again in the spring of 2007.

(e) An approximately 900 square foot pool in grassland located approximately 1,500 feet west of the intersection of "Langtry Avenue" and the UPRR tracks, about 20 feet north of the eucalyptus windrow paralleling the north side of the tracks. In the fall of 2006, this pool was somewhat larger, extending about 100 feet north of the eucalyptus windrow. The ground associated with this feature is compacted and slightly depressed relative to the adjacent land.

(f) An approximately 500 square foot pool in grassland approximately 500 feet northwest of the previous feature. In the fall of 2006, this area supported a much larger pool of water that extended about 300 feet from a ruptured pipeline midway between dos Pueblos Canyon Road and the UPRR tracks, southward to the eucalyptus windrow along the tracks. The entire area was dry by March of 2007. The southern portion of this area appears to collect sheet flow from the surrounding pasture land into a shallow drainage and pond area.

All except the latter two water bodies appeared to be man-made, but all are filled naturally from surface runoff during storm events, as well as from the previous pipe leaks. Standing water in the latter two grassland water bodies north of the UPRR tracks was less than six inches deep at the time of the field surveys in 2005.

Wetlands mapped by SAIC (2005) include a series of man-made impoundments in the northeastern corner of the project area south of Highway 101 (number 10 in Figure 3.4-2) that supported large numbers of Pacific tree frog (*Hyla regilla*) and western toads (*Bufo boreas*) larvae at the time of the field surveys on March 29, 2005. Most of these impoundments also supported large numbers of the California clam shrimp. The hydroperiod of these impoundments probably extends over several months, as indicated by the presence of clam shrimp, which have a relatively long-life cycle. Standing water in a linear man-made depression adjacent to the north side of the UPRR tracks during field surveys for this report, and in several small man-made pools associated with an irrigation system in annual grassland north of the UPRR tracks also supported Pacific tree frogs and/or western toad larvae. These pools are seasonal, but persist long enough to allow successful larval metamorphosis.

3.4.2.3.4 Oak Woodland. Oak woodlands support a diverse resident fauna. While there is no oak woodland on the MOU Project site, this wildlife habitat is found in the Dos Pueblos Creek drainage to the northwest. Due to the relatively cool, mesic conditions found in oak woodland, amphibians like ensatina, arboreal salamander, and Pacific tree frog are expected to inhabit oak woodlands in the vicinity. Some of the more common reptiles that are known to frequent oak woodlands along the south slope of the Santa Ynez Mountains include southern alligator lizard, western skink, western whiptail, western fence lizard, common king snake, ringneck snake, and gopher snake. Bird species expected to occur in this habitat type in the project area include red-shouldered hawk, acorn woodpecker, Nuttall's woodpecker, black phoebe, northern oriole, mourning dove, house wren, plain titmouse, California towhee, and spotted towhee. Common mammals found in oak woodlands in the project area include ornate shrew, broad-footed mole, Botta's pocket gopher, Merriam's chipmunk, western gray squirrel, deer mouse, dusky-footed woodrat, California mouse, brush mouse, striped skunk, bobcat, mule deer, and black bear.

3.4.2.3.5 Coastal Scrub. Scrub habitats, including coastal sage scrub, chaparral, and riparian scrub, support a wide variety of wildlife species, because of the dense vegetative cover, structural diversity, and the abundance of food resources these habitats typically provide. Patches of coastal scrub remain within the MOU Project area north of Highway 101 to the east of Tomate Canada and along the eastern property boundary. While amphibians tend to be scarce in scrub habitats because of the lack of permanent water, reptile, bird, and mammalian faunas tend to be relatively diverse. Some of the more common species expected to frequent scrub habitats within and adjacent to the project area include western fence lizard, side-blotched lizard, western whiptail, striped racer, common king snake, western rattlesnake, red-tailed hawk, common flicker, California thrasher, loggerhead shrike, wrentit, rufous-crowned sparrow, California quail, Anna's hummingbird, western kingbird, violet-green swallow, Bewick's wren, roadrunner, house finch, California ground squirrel, Merriam's chipmunk, Audubon's cottontail, brush rabbit, California pocket mouse, agile kangaroo rat, deer mouse, California mouse, desert woodrat, coyote, gray fox, bobcat, striped skunk, mountain lion, and mule deer.

3.4.2.3.6 Aquatic Habitats. This category of wildlife habitat is represented by three categories in the MOU Project area or in the immediate vicinity: a) man-made seasonal water

bodies, such as those previously discussed in the section dealing with Seasonal Water Bodies; b) permanent man-made water bodies, such as the reservoir (outside of the MOU Project boundary) in the unnamed eastern tributary of Dos Pueblos Creek; and c) natural perennial or intermittent drainages, such as Dos Pueblos Creek (to the west of the MOU Project area), the unnamed eastern tributary downstream of the aforementioned reservoir, Tomate Canada Creek, and the unnamed drainage along the eastern border of the project area north of Highway 101. Although limited in areal extent in the project area, these aquatic features are important wildlife habitats because they support diverse vegetation, provide breeding and foraging habitat for a number of sensitive wildlife species, provide a source of fresh water, and as linear landscape features, they may facilitate wildlife movement between habitat patches.

Aquatic biota found in intermittent streams, seasonal water bodies, and seeps include invertebrates and amphibians that complete the aquatic part of their life cycle during the wet period or have special adaptations to survive when the water body is dry (e.g., California clam shrimp [*Cyzicus californicus*]; see also previous discussion of seasonal water bodies in grasslands in the project area). Perennial portions of intermittent or perennial streams support other species of invertebrates and vertebrates that require one or more years for completion of their life cycle. Dos Pueblos Creek probably originally supported southern steelhead (*Oncorhynchos mykiss*) and tidewater goby (*Eucyclogobius newberryi*), but habitats for these species have been eliminated or severely modified. Today, native partially-armored stickleback (*Gasterosteus aculeatus microcephalus*) and arroyo chub (*Gila orcutti*) may still occur there, but must compete with or evade predation from non-native fish (bass, sunfish, carp, etc.) and red crayfish (*Procambarus clarkii*).

A variety of other vertebrate species is expected to inhabit seasonal and permanent aquatic habitats within the project area. Amphibian species expected to occur in aquatic and riparian habitats include arboreal salamander, ensatina, black-bellied slender salamander, western toad, Pacific tree frog, California tree frog, California newt, and California red-legged frog. Reptiles of aquatic habitats in the project area include western fence lizard, western skink, southern alligator lizard, ringneck snake, common king snake, two-striped garter snake, and western terrestrial garter snake. A variety of birds and mammals are expected to use wetland and aquatic habitats within the project area including common coot, pied-billed grebe, great blue heron, common egret, snowy egret, western gull, California gull, black phoebe, cliff swallow, Bewick's wren, Brewer's blackbird, red-winged blackbird, European starling, common yellowthroat, yellow-rumped warbler, song sparrow, Virginia opossum, ornate shrew, broad-footed mole, brush mouse, California mouse, dusky-footed woodrat, California vole, coyote, raccoon, bobcat, striped skunk, ringtail, and mule deer.

3.4.3 Special-status Species and Habitats

3.4.3.1 Regulatory Framework

Special-status species are plant, wildlife, and fish species that are protected by the following regulations and policies:

- Listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 CFR 17.11 [listed animals], 50 CFR 17.12 [listed plants], and various notices in the Federal Register for proposed species)
- Candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (58 FR 188: 51144-51190, September 30, 1993)
- California Department of Fish and Game (CDFG) list of state threatened or endangered species under the California Endangered Species Act

In addition, other plants identified as sensitive by the California Native Plant Society (CNPS), and wildlife considered species of special concern, special animals, or fully protected in the State of California are also considered "sensitive." Certain habitat types are also classified as "sensitive" by the CDFG in their CNDDB.

For the purposes of this RDEIR, the term "special-status species" includes species federally listed and proposed for listing as threatened or endangered, candidates for listing, rare species, and species of concern.

The sixth edition of the California Native Plant Society Inventory of Rare and Endangered Plants of California (CNPS, 2001), lists plants in four categories:

- **List 1A** – plants presumed extinct in California
- **List 1B** – plants rare and endangered in California and elsewhere
- **List 2** – plants rare or endangered in California, but more common elsewhere
- **List 3** – plants about which more information is needed
- **List 4** – plants of limited distribution (a watch list)

Other special-status species are species that have "special-status" designations other than state or federal status as threatened, endangered, or candidates for listing as endangered or threatened. Special-status designations indicate species rarity, population declines, or threats to populations that may warrant special consideration or protection, which include federal species of concern (former federal C2 candidates).

This section also discusses the distribution and status of animal species in the project area that are listed, proposed, or under review (former Federal candidate species) for listing under Federal or State Endangered Species Acts (USFWS, 1994, 1996; CDFG, 2004), species recognized as rare or of Special Concern by the California Department of Fish and Game (CDFG, 2004; CNDDB, 2005), as well as species considered locally sensitive by the Santa Barbara Botanic Garden (SBBG, 1988a,b) and adopted by the County of Santa Barbara Planning and Development Department as "locally sensitive" (County of Santa Barbara, 2002). Many of these species also are recognized by the California Native Plant Society as special-status species (CNPS, 2001).

In late February 1996, the United States Fish and Wildlife Service (USFWS) published an updated list of plant and animal taxa that it regards as candidates for possible addition to the List of Endangered and Threatened Wildlife and Plants under the Endangered Species Act (ESA) of 1973, as amended (USFWS, 1996). These candidate species are those for which USFWS has on file sufficient information on biological vulnerability and threats to support a proposed rule to list, but issuance of such a proposed rule is precluded. In general, the currently designated "candidate" species correspond with the "Category 1" candidate species previously designated by USFWS. The USFWS no longer includes the former "Category 2" species as candidates, but does recognize them as "federal species of concern." In addition, it has been the policy of the CDFG to consider the previously designated federal Category 2 candidates as either California Species of Special Concern or as "Special Animals" (CDFG, 2004).

3.4.3.1.1 Federal Authorities and Administering Agencies.

Endangered Species Act of 1973. The federal ESA and implementing regulations, Title 16 United States Code (USC) § 1531 et seq. (16 USC 1531 et seq.), Title 50 Code of Federal Regulations (CFR) § 17.1 et seq. (50 CFR § 17.1 et seq.), includes provisions for the protection and management of federally listed threatened or endangered plants and animals and their designated critical habitats. Section 7 of the ESA requires a permit to take threatened or endangered species during lawful project activities. The ESA (1973, as amended) provides the legal basis for protection. Section 3 of the ESA defines Threatened and Endangered categories as:

- **Endangered** – a plant or animal species that is in danger of extinction throughout all or a significant portion of its range
- **Threatened** – a plant or animal species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range

The USFWS is the administering agency charged with managing and enforcing the ESA for terrestrial, avian, and most aquatic species.

National Environmental Policy Act 42 USC § 4321 et seq. This Act requires analysis of the environmental effects of federal actions. The administering agency for the above authority for the proposed project components under the jurisdiction of the County is expected to be the U.S. Army Corps of Engineers (ACOE) associated with permitting under Section 404 of the Clean Water Act.

Fish and Wildlife Coordination Act. Section 7 of Fish and Wildlife Coordination Act, 16 USC 742 et seq., 16 USC 1531 et seq., and 50 CFR 17 requires consultation if any project facilities could jeopardize the continued existence of an endangered species. Applicability depends on federal jurisdiction over some aspect of the project. The administering agency for these authorities is expected to be the ACOE in coordination with the USFWS.

Migratory Bird Treaty Act. The Migratory Bird Treaty Act (16 USC § § 703-711) includes provisions for protection of migratory birds, including the non-permitted take of migratory birds, under the authority of the USFWS and CDFG.

Clean Water Act of 1977, Section 404. This section of the Clean Water Act (33 USC 1251 et seq., 33 CFR § § 320 and 323) gives the ACOE authority to regulate discharges of dredge or fill material into waters of the U.S., including wetlands. The ACOE regulates the disposal of dredged or fill material into waters subject to federal jurisdiction ("waters of the United States") by administering a permitting program pursuant to Section 404 of the Clean Water Act. The ACOE issues several categories of permits that authorize various types of actions and these include individual permits such as standard permits and letters of permission, and general permits such as regional permits, nationwide permits, and programmatic permits. The process for obtaining an individual permit from the ACOE typically requires the following steps: final project description and footprint; determination whether jurisdictional water will be affected; initiation of pre-consultation meeting with the ACOE; submittal of an application (ENG Form 4345) along with supporting materials requested by the ACOE following ACOE guidance regarding the type of permit that is most consistent with Section 404 requirements; processing of the application which may include the public hearings, requests for additional materials, consultation with other federal agencies, or other certification requirements; and a final decision by the ACOE to issue or deny the permit.

The definitions of federal "waters of the United States" are given at Part 328 of the ACOE of Engineers, Regulatory Program Regulations, Federal Register Vol. 51, No. 219, 33 CFR Parts 320 – 330, November 13, 1986 (Regulations). Specifically, Section 328.3 Definitions (a) through (f), and Section 328.4 Limits of Jurisdiction (a) through (c), constitute the parameters for identifying hydrogeologic features that constitute waters subject to federal jurisdiction under Section 404 of the Clean Water Act. Hydrogeologic features include the ocean, lakes, rivers, streams (including intermittent and ephemeral streams), sloughs, wetlands and tributary drainages that are surface connected hydrologically to waters, and impoundments of waters otherwise defined as waters of the United States under the definitions. For non-tidal waters, the lateral limit of ACOE jurisdiction extends to the ordinary high water mark (OHWM), which is indicated as a natural line impressed on the shore of a waterbody, or on the embankment of a watercourse established by the fluctuations of water. Other OHWM indicators can include scour, drift lines, and debris deposition in vegetation. Where wetlands occur adjacent to the OHWM of a stream or lake, the lateral limit of ACOE jurisdiction extends beyond the OHWM to the wetland/upland interface. The upper limit of ACOE jurisdiction for a given hydrogeologic feature is that point where the OHWM is no longer perceptible and/or there is no contiguous wetland present.

ACOE jurisdiction extends to wetlands, which are a subset of waters of the United States and are defined on the bases of three parameters: hydrology, the presence of hydrophytic vegetation, and the presence of hydric soils (ACOE, 1987:6).

Clean Water Act of 1977, Section 401. This section of the Clean Water Act requires a state-issued Water Quality Certification for all projects regulated under Section 404. In California, the Regional Water Quality Control Board (RWQCB) issues Water Quality Certifications with jurisdiction over the project area. The RWQCB – Central Coast Region, issues Section 401 Water Quality Certifications for Santa Barbara County.

3.4.3.1.2 State Authorities and Administering Agencies.

California Endangered Species Act of 1984. The California Endangered Species Act and implementing regulations in the Fish and Game Code, § 2050 through § 2098, includes provisions for the protection and management of plant and animals species listed as endangered or threatened, or designated as candidates for such listing. The Act includes a consultation requirement "to ensure that any action authorized by a state lead agency is not likely to jeopardize the continued existence of any endangered or threatened species…or result in the destruction or adverse modification of habitat essential to the continued existence of the species" (§ 2090). Plants of California declared to be endangered, threatened, or rare are listed at 14 CCR § 670.2. Animals of California declared to be endangered or threatened are listed at 14 CCR § 670.5.14 CCR § 15000 et seq. describes the types and extent of information required to evaluate the effects of a proposed project on biological resources of a project site. The California Endangered Species Act of 1984 resulted in listing and protection rare plant and animal species through the CDFG. Their categories of sensitivity are:

- **Rare** – taxa that are not presently threatened with extinction but occur in such small number that they could become endangered if habitat conditions worsen.
- **Threatened** – taxa that are likely to become endangered within the foreseeable future without special protection and management efforts.
- **Endangered** – taxa whose prospects for survival are in immediate jeopardy for one or more reasons. The latter category contains taxa that are in danger of extinction throughout all or a significant portion of their range.

California Species Preservation Act 1970: California Fish and Game Code § § 900 – 903. This law includes provisions for the protection and enhancement of the birds, mammals, fish, amphibians, and reptiles of California, and is administered by the CDFG. The California Environmental Quality Act (CEQA) provides legal protection for species that are recognized by the CDFG and the CNPS (Lists 1B and 2) that currently do not receive formal recognition by Federal resource agencies. CEQA requires that all List 1B and List 2 plants, as well as all Species of Special Concern be fully considered during preparation of environmental documents at the local and state level. The CDFG is responsible for managing and enforcing regulations governing Species of Special Concern:

- **Species of Special Concern** – taxa that are recognized as declining in California for one or more reasons and are likely to become rare, threatened, or endangered in the future if habitat conditions continue to deteriorate.

Fish and Game Code. The CDFG Code provides specific protection and listing for several types of biological resources. These include:

- Fully protected species
- Streams, rivers, sloughs, and channels
- Significant natural areas
- Designated ecological reserves

Fully Protected Species are listed in § 3511 (Fully Protected birds), § 4700 (Fully Protected mammals), § 5050 (Fully Protected reptiles and amphibians), and § 5515 (Fully Protected fishes). The CDFG Code prohibits the taking of species designated as Fully Protected.

Sections 1600 through 1616 of the CDFG Code regulate impacts to the natural flow, bed, channel and embankments of State waters including lakes and streams. The Code, otherwise known as the Lake and Streambed Alteration Program (Program), is administered by the CDFG. The Program includes submitting a Notification of Lake or Streambed Alteration (Form 2023) and a Project Questionnaire (Form 2024) along with an application fee that is dependent on the total project cost. Typical activities that require a Streambed Alteration Agreement include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement.

Section 1602 of the code does not provide specific hydrologic and hydrogeologic definitions for river, stream, and lake; nor does it define indicators of the upreach and lateral extents of State jurisdiction regarding these features. Traditionally, the CDFG has adopted a liberal interpretation of the code and exercises jurisdiction over ephemeral, intermittent, and perennial flow watercourses within a watershed, natural lakes, and water impoundments such as dam-created lakes and ponds that are hydrologically connected to watercourses. Isolated natural and human-built water bodies such as vernal pools, cattle ponds, and irrigation-supply reservoirs that are not part of the tributary system within a watershed, are not specifically referenced in the code and CDFG is not known to require permitting for effects to these types of water bodies. The CDFG has traditionally applied a broad approach to interpreting the lateral limits of their jurisdiction beyond bed, channel, and bank to include the tops of embankments plus the adjacent floodplain terrace to the extents of riparian (i.e., "stream side") vegetation as being subject to the Code.

The Fish and Game Code § 1930 designates Significant Natural Areas. These areas include refuges, natural sloughs, riparian areas, and vernal pools and significant wildlife habitats. An inventory of Significant Natural Areas is maintained by the CDFG Natural Heritage Division and is part of the NDDB.

Section 1580 of the Fish and Game Code lists Designated Ecological Reserves. Designated Ecological Reserves are significant wildlife habitats to be preserved in natural condition for the general public to observe and study.

Section 2081(b) and (c) of the California Endangered Species Act allows CDFG to issue an incidental take permit for a state listed threatened and endangered species only if specific criteria are met. These criteria can be found in Title 14 CCR, Sections 783.4(a) and (b). No Section 2081(b) permit may authorize the take of "fully protected" species and "specified birds." If a project is planned in area where a fully protected species or specified bird occurs, an applicant must design the project to avoid all take. The CDFG cannot provide take authorization under this act.

CEQA, Public Resources Code § 2100 et seq. The Act provides for protection of the environment. The administering agency for the above authority is the CDFG.

Native Plant Protection Act of 1977. Native Plant Protection Act of 1977 and implementing regulations in Section 1900 et seq. of the Fish and Game Code designates rare and endangered plants and provides specific protection measures for identified populations. It is administered by the CDFG.

Coastal Act. The California Coastal Act provides policies for the protection of biological resources, including Public Resources Code Sections 30231 and 30240.

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

Coastal Act § 30240. Environmentally sensitive habitat areas (ESHs) shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas. Development in areas adjacent to ESHs and parks and recreation areas shall be sited and designed to prevent impacts that would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.

3.4.3.1.3 Local Authorities and Administering Agencies. In addition to the CDFG and ACOE permitting requirements and processes listed above, other permits or actions that may be required as part of the proposed project are listed below. Local regulatory agencies may identify the need for additional permits as the implementation of the project progresses. For example, the County of Santa Barbara (2002) and the Santa Barbara Botanic Garden (SBBG, 1988a,b) recognizes "Locally sensitive species" that are regionally rare or declining, or near their

distributional limits in Santa Barbara County. Additionally, the County of Santa Barbara Planning and Development Department maintains a Special-status Species Overlay that maps and describes special-status plants and animals that have been observed by knowledgeable local biologists in Santa Barbara County. Santa Barbara County's certified Local Coastal Program (LCP) Coastal Land Use Plan (CLUP) and Comprehensive Plan Land Use Element contain resource protection policies for biological resources. Relevant LCP and Comprehensive Plan policies and development standards are listed below. The project's consistency with these policies is discussed in Section 4.0.

Santa Barbara County Local Coastal Program. The LCP contains the principal land-use policies for development within Santa Barbara County's Coastal Zone. This program, pursuant to requirements of the California Coastal Act (Section 30108.5), contains the relevant portion of a local government's general plan, or local coastal element, which indicates the kinds, location, and intensity of land uses, the applicable resource protection and development policies and a listing of implementing actions. The County's LCP first came into effect in 1982, and has been revised periodically to update policies. The CLUP represents one component of the LCP, which also includes the Land Use Maps of the Coastal Zone, the Coastal Zoning Ordinance (codified as Article II of Chapter 35 in the Santa Barbara County Code), and the Coastal Zoning Maps. Section 4.0 of this RDEIR addresses consistency of the proposed MOU Project with policies from the CLUP. Applicable policies that related to the assessment of biological effects are presented in the following paragraphs.

LCP – Coastal Plan Policy 2-11. All development, including agriculture, adjacent to areas designated on the land use plan or resource maps as environmentally sensitive habitat areas, shall be regulated to avoid adverse impacts on the habitat resources. Regulatory measures include, but are not limited to, setbacks, buffer zones, grading controls, noise restriction, maintenance of natural vegetation, and control of runoff.

LCP – Coastal Plan Policy 9-1. Prior to the issuance of a development permit, all projects on parcels shown on the land use plan and/or resource maps with a habitat area overlay designation or within 250 feet of such designation or projects affecting an environmentally sensitive habitat area shall be found to be in conformity with the applicable habitat protection policies of the land use plan. All development plans, grading plans, etc., shall show the precise location of the habitat(s) potentially affected by the proposed project. Projects that could adversely impact an environmentally sensitive habitat area may be subject to a site inspection by a qualified biologist to be selected jointly by the County and the applicant.

LCP – Coastal Plan Policy 9-9. A buffer strip, a minimum of 100 feet in width, shall be maintained in natural condition along the periphery of all wetlands. No permanent structures shall be permitted within the wetlands or buffer area except structures of a minor nature, i.e., fences, or structures necessary to support the uses in Policy 9-10 (e.g., birdwatching and educational uses).

The upland limit of a wetland shall be defined as: 1) the boundary between land with predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover; 2) the boundary between soil that is predominantly hydric and soil that is predominantly nonhydric; or 3) in the case of wetlands without vegetation or soils, the boundary between land that is flooded or saturated at some time during years of normal precipitation and land that is not.

Where feasible, the outer boundary of the wetland buffer zone should be established at prominent and essentially permanent topographic or man-made features (such as bluffs, roads, etc.). In no case, however, shall such a boundary be closer than 100 feet from the upland extent of the wetland area, nor provide for a lesser degree of environmental protection than that otherwise required by the plan. The boundary definition shall not be construed to prohibit public trails within 100 feet of a wetland.

The Santa Barbara County LCP does not explicitly address the issue of water source for a wetland. If the usual source of water that maintains hydrophytic vegetation is man-made, however, both the US Army Corps of Engineers (1987:83) and the California Coastal Act Regulations (14 CCR 13577(b)) indicate that the area should not be considered a wetland.

LCP – Coastal Plan Policy 9-10. Light recreation, such as birdwatching or nature study, and scientific and educational uses shall be permitted with appropriate controls to prevent adverse impacts.

LCP – Coastal Plan Policy 9-11. Wastewater shall not be discharged into any wetland without a permit from the RWQCB finding that such discharge improves the quality of the recycling water.

LCP – Coastal Plan Policy 9-13. No unauthorized vehicle traffic shall be permitted in wetlands and pedestrian traffic shall be regulated and incidental to the permitted uses.

LCP – Coastal Plan Policy 9-14. New development adjacent to or in close proximity to wetlands shall be compatible with the continuance of the habitat area and shall not result in a reduction in the biological productivity or water quality of the wetland due to runoff (carrying additional sediment or contaminants), noise, thermal pollution, or other disturbances.

LCP – Coastal Plan Policies 9-15 and 9-19. Mosquito abatement practices shall be limited to the minimum necessary to protect health and prevent damage to natural resources. Spraying shall be avoided during nesting and/or breeding seasons to protect wildlife. Biological controls are encouraged. No mosquito control activity shall be carried out in vernal pools unless it is required to avoid severe nuisance.

LCP – Coastal Plan Policy 9-16a. No grazing or other agricultural uses shall be permitted in coastal wetlands.

LCP – Coastal Plan Policy 9-17. Grazing shall be managed to protect native grassland habitat.

LCP – Coastal Plan Policy 9-18. Development shall be sited and designed to protect native grassland.

LCP – Coastal Plan Policy 9-19. No mosquito control activity shall be carried out in vernal pools unless it is required to avoid severe nuisance.

LCP – Coastal Plan Policy 9-20. Grass cutting for fire prevention shall be conducted to such a manner as to protect vernal pools. No grass cutting shall be allowed within the vernal pool area or within a buffer zone of five feet or greater.

LCP – Coastal Plan Policy 9-21. Development shall be sited and designed to avoid vernal pool sites as depicted on the resource maps.

LCP – Coastal Plan Policy 9-22 and 9-23. Monarch butterfly trees shall not be removed except where they pose a serious threat to life or property, and shall not be pruned during roosting season. Adjacent development shall be set back a minimum of 50 feet from butterfly trees.

LCP – Coastal Plan Policies 9-24 and 9-25. Recreational activities near or on areas used for marine mammal hauling grounds shall be carefully monitored to ensure continued viability of these habitats. Marine mammal rookeries shall not be altered or disturbed by recreation, industrial, or any other uses during the times of the year when such areas are in use for reproductive activities, i.e., mating, pupping, and pup care.

LCP – Coastal Plan Policy 9-30. In order to prevent destruction of organisms that thrive in intertidal areas, no unauthorized vehicles shall be allowed on beaches adjacent to intertidal areas.

LCP – Coastal Plan Policy 9-31. Only light recreational use shall be permitted on public beaches that include or are adjacent to rocky points or intertidal areas.

LCP – Coastal Plan Policy 9-33. Naples Reef shall be maintained primarily as a site for scientific research and education. Recreational and commercial uses shall be permitted as long as such uses do not result in depletion of marine resources. If evidence of depletion is found, the County shall work with the CDFG and sport and commercial fishing groups to assess the extent of damage and implement mitigation measures.

LCP – Coastal Plan Policy 9-35. Oak trees, because they are particularly sensitive to environmental conditions, shall be protected. All land use activities, including cultivated agriculture and grazing, should be carried out in such a manner as to avoid damage to native oak trees. Regeneration of oak trees on grazing lands should be encouraged.

LCP – Coastal Plan Policy 9-36. When sites are graded or developed, areas with significant amounts of native vegetation shall be preserved. All development shall be sited, designed, and constructed to minimize impacts of grading, paving, construction of roads or structures, runoff, and erosion on native vegetation. In particular, grading and paving shall not adversely affect root zone aeration and stability of native trees.

LCP – Coastal Plan Policy 9-37. The minimum buffer strip for major streams in rural areas, as defined by the land use plan, shall be presumptively 100 feet, and for streams in urban areas, 50 feet. The minimum buffers may be adjusted upward or downward on a case-by-case basis. The buffer shall be established based on an investigation of the following factors and after consultation with the CDFG and the RWQCB in order to protect the biological productivity and water quality of streams:

- Soil type and stability of stream corridors
- How surface water filters into the ground
- Slope of the land on either side of the stream
- Location of the 100-year floodplain boundary

Riparian vegetation shall be protected and shall be included in the buffer. Where riparian vegetation has previously been removed, except for channelization, the buffer shall allow for the reestablishment of riparian vegetation to its prior extent to the greatest degree possible. (On the MOU Project site, the only stream that qualifies as a "major stream" [with a drainage area in excess of 500 acres] is the easterly tributary of Dos Pueblos Creek that crosses Lot 57.)

LCP – Coastal Plan Policy 9-38. No structures shall be located within the stream corridor except public trails, dams for necessary water supply projects, flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, and other development where the primary function is for the improvement of fish and wildlife habitat. Culverts, fences, pipelines, and bridges (when support structures are located outside the critical habitat) may be permitted when no alternative route/location is feasible. All development shall incorporate the best mitigation measures feasible.

LCP – Coastal Plan Policy 9-40. All development, including dredging, filling, and grading within stream corridors, shall be limited to activities necessary for the construction of uses specified in Policy 9-38. When such activities require removal of riparian plant species, revegetation with local native plants shall be required except where undesirable for flood control purposes. Minor clearing of vegetation for hiking, biking, and equestrian trails shall be permitted.

LCP – Coastal Plan Policy 9-41. All permitted construction and grading within stream corridors shall be carried out in such a manner as to minimize impacts from increased runoff, sedimentation, biochemical degradation, or thermal pollution.

LCP – Coastal Plan Policy 9-42. The following activities shall be prohibited within stream corridors: cultivated agriculture, pesticide applications, except by a mosquito abatement or flood control district, and installation of septic tanks.

LCP – Coastal Plan Policy 9-43. Other than projects that are currently approved and/or funded, no further concrete channelization or other major alterations of streams in the coastal zone shall be permitted unless consistent with the provisions of Section 30236 of the Coastal Act.

Santa Barbara County Comprehensive Plan. The Comprehensive Plan Land Use Element contains various goals and policies related to development, including hillside and watershed protection policies, and streams and creek policies. Land Use Element Streams and Creek Policy 1 specifies that "*All permitted construction and grading within stream corridors shall be carried out in such a manner as to minimize impacts from increased runoff, sedimentation, biochemical degradation, or thermal pollution."* Grading proposed in connection with the proposed development and the proximity to riparian corridors create issues of consistency with stream and creek policies in the Land Use Element. These issues must also be addresses during project review.

Section 4.0 of this RDEIR addresses the MOU Project's potential consistency with these policies, which is based largely on the impact assessment in this section.

3.4.3.2 Special-status Plants

Special-status plant species known to occur or that may potentially occur in the project area are summarized in Table 3.4-3. Known occurrences of special-status plants and habitats are mapped on Figure 3.4-3 and described more fully in Appendix C.1. These species were selected by reviewing all special-status species listed for Santa Barbara County by the CNPS (2001), as well as those listed by the CNDDB (2005) for the Dos Pueblos Canyon, Goleta, San Marcos Pass, Lake Cachuma, Santa Ynez, and Tajiguas Quadrangles. Together, these sources included all species listed by the USFWS and the CDFG. Current lists of Federal and State sensitive plants were reviewed (USFWS, 1994, 1996; CDFG, 2004; CNDDB, 2005). Lists of local concern species produced by the Santa Barbara Botanic Garden (1988a,b) and maintained by the County of Santa Barbara (Wiskowski, 1988) were also consulted. Based on distribution and habitat requirements, many species were eliminated from further consideration by consulting regional (Smith, 1998) and statewide (Munz, 1974; Hickman, 1993) flora data.

3.4.3.2.1 Summary of Special-status Plant Occurrence. The distribution, habitat associations, and known or potential occurrence of 41 species of special-status plants is summarized in Table 3.2-3 and described more fully in Appendix C.1. Each species was rated as having a low, moderate, or high potential for occurrence on the following basis:

- **Low** – not known from within 15 miles of the project area, is a species whose known distribution is well-documented, species is perennial and readily recognizable, and/or project area does not contain suitable habitat

Table 3.4-3
Special-status Plant Species Reviewed in this Document[1]

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Aphanisma	*Aphanisma blitoides*	None/None/List 1B	Coastal bluff scrub, coastal dunes, and coastal scrub	Low	No impacts
Bitter gooseberry	*Ribes amarum* ssp. *hoffmannii*	None/None/List 3	Riparian woodland	Moderate	No impacts
Black-flowered figwort	*Scrophularia atrata*	None/None/List 4	Coastal scrub, open chaparral, and open oak woodland	Moderate	Vegetation modification for fire control; construction
Brewer's calandrinia	*Calandrinia breweri*	None/None/List 4	Open oak woodland and open coastal scrub	Low	No impacts
Catalina mariposa lily	*Calochortus catalinae*	None/None/List 4	Grasslands, coastal scrub, and open oak woodland	Moderate	Habitat loss and fragmentation; vegetation modification for fire control
Cliff-aster	*Malacothrix saxatilis* var. *saxatilis*	Locally Sensitive	Coastal bluff scrub	Observed in coastal bluff scrub south of Highway 101	Coastal trail/beach staircase construction
Cooper's lip fern	*Cheilanthes cooperae*	Locally Sensitive	Sandstone outcrops and sandstone-derived soils in coastal scrub, open oak woodland, and chaparral	High	Vegetation modification for fire control
Coulter's saltbush	*Atriplex coulteri*	None/None/List 1B	Coastal bluff scrub, coastal scrub, and coastal dunes	Moderate	No impacts

Table 3.4-3 (Continued)
Special-Status Plant Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Cream-flowered eardrops	*Dicentra ochroleuca*	Locally Sensitive	Chaparral and coastal scrub	High	Vegetation modification for fire control; construction
Creek dogwood	*Cornus nuttallii*	Locally Sensitive	Riparian woodland and seeps	High	No impacts
Davidson's saltscale	*Atriplex serenana* var. *davidsonii*	None/None/List 1B	Alkaline soils in coastal salt marsh and coastal bluff scrub	Moderate	Coastal trail/beach staircase construction
Fish's milkwort	*Polygala cornuta* var. *fishiae*	None/None/List 4	Riparian and mesic oak woodland and seeps on sandy substrates	Moderate	No impacts
Gaviota tarplant	*Deinandra* (= *Hemizonia*) *increscens* ssp. *villosa*	Endangered/Endangered/ List 1B	Clay loam and sandy loam soils in coastal grasslands and coastal scrub	Low	No impacts
Grass-of-Parnassus	*Parnassia californica*	Locally Sensitive	Oak woodland and scrub	Known from northeast-facing slope above Dos Pueblos Canyon Creek immediately north of MOU project area north of Highway 101	Vegetation modification for fire control; erosion
Hoffmann's nightshade	*Solanum xanti* var. *hoffmannii*	Locally Sensitive	Oak woodland, coastal scrub, and chaparral	High	Vegetation modification for fire control; construction
Hoffmann's sanicle	*Sanicula hoffmannii*	None/None/List 4	Coastal scrub, oak woodland, chaparral	Low	No impacts

Table 3.4-3 (Continued)
Special-Status Plant Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Late-flowered mariposa lily	*Calochortus weedii* var. *vestus*	FSS/None/List 1B	Rocky soils in grassland, chaparral, and riparian scrub; often associated with serpentine soils	Low	No impacts
Mesa horkelia	*Horkelia cuneata* ssp. *puberula*	None/None/List 1B	Coastal scrub, dune scrub, and open oak woodland on sandy soils	Low; observed in coastal scrub and dune scrub on sandy soils north of project area, but soils in project area are not sandy	Vegetation modification for fire control; construction
Nuttall's scrub oak	*Quercus dumosa* var. *dumosa*	FSS/None/List 1B	Coastal scrub and chaparral on sandy and clay loam soils	High	Vegetation modification for fire control; construction
Nuttall's snapdragon	*Antirrhinum nuttallianum*	Locally Sensitive	Coastal scrub and coastal bluff scrub and along creeks	Moderate to High	Vegetation modification for fire control; construction
Ocellated Humboldt lily	*Lilium humboldtii* ssp. *ocellatum*	FSS/None/List 1B	Riparian woodland	Moderate	Collecting
Pink-flowering currant	*Ribes sanguineum* var. *glutinosum*	Locally Sensitive	Coastal scrub and oak woodland on sandy soils	Low	No impacts
Plummer's baccharis	*Baccharis plummerae* ssp. *plummerae*	None/None/List 4	Open oak woodland, coastal scrub, and chaparral	High	Vegetation modification for fire control; construction
Rayless ragwort	*Senecio aphanactis*	None/None/List 2	Mildly alkaline soils in coastal scrub and oak woodland	Low	No impacts

Table 3.4-3 (Continued)
Special-Status Plant Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Refugio manzanita	*Arctostaphylos refugioensis*	FSS/None/List 1B	Chaparral on sandy substrates	Low	No impacts
Robinson's peppergrass	*Lepidium virginicum* var. *robinsonii*	None/None/List 1B	Chaparral and coastal sage scrub	Low	No impacts
Saint's daisy	*Erigeron sanctarum*	None/None/List 4	Chaparral and oak woodland on sandy soils	Low	No impacts
Santa Barbara bedstraw	*Galium cliftonsmithii*	None/None/List 4	Chaparral and oak woodland	High	Vegetation modification for fire control; construction
Santa Barbara honeysuckle	*Lonicera subspicata* ssp. *subspicata*	Locally Sensitive	Coastal scrub and open oak woodland	Observed in project area north of Highway 101	Vegetation modification for fire control; construction
Santa Barbara locoweed	*Astragalus trichopodus* var. *trichopodus*	Locally Sensitive	Oak-sycamore riparian woodland; coastal bluff scrub	Moderate	Coastal access trail/beach staircase
Santa Barbara morning-glory	*Calystegia sepium* spp. *binghamiae*	FSS/None/List 1A	Coastal marshes and swamps near sea level	Low	No impacts
Santa Lucia phacelia	*Phacelia grisea*	Locally Sensitive	Chaparral	Moderate	Vegetation modification for fire control
Santa Ynez false-lupine	*Thermopsis macrophylla*	None/Rare/List 1B	Sandy and granitic soils in open chaparral and coastal sage scrub	Moderate	No Impacts
Sonoran maiden fern	*Thelypteris puberula* var. *sonorensis*	None/None/List 2	Moist meadows, riparian woodland, and seeps on sandstone or sandy soils	High	Vegetation modification for fire control; construction

Table 3.4-3 (Continued)
Special-Status Plant Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
South Coast Range morning-glory	*Calystegia collina* ssp. *venusta*	None/None/List 4	Oak woodland, chaparral, and coastal scrub, including serpentine-derived soils	High	Vegetation modification for fire control; construction
Southern California black walnut	*Juglans californica*	None/None/List 4	Riparian woodland	High	No impacts
Southern tarplant	*Centromadia parryi* ssp. *australis*	FSS/None/List 1B	Estuarine and vernal wetland margins and disturbed coastal grassland and scrub	High	Construction south of Highway 101
Suffructescent wallflower	*Erysimum insulare* ssp. *suffructescens*	None/None/List 4	Coastal bluff scrub, coastal scrub, and coastal sand dunes	Moderate	Vegetation modification for fire control; construction
Trask's yerba santa	*Eriodictyon traskiae* var. *smithii*	Locally Sensitive	Chaparral, especially disturbed chaparral	Moderate	Class II: Vegetation modification for fire control
Triple-awned grass	*Aristida adscensionis*	Locally Sensitive	Coastal scrub and open chaparral	Moderate	Vegetation modification for fire control; construction

Table 3.4-3 (Continued)
Special-Status Plant Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Water pimpernel	*Samolus parviflorus*	Locally Sensitive	Riparian woodland; wet eucalyptus woodland; seeps, marshes	Known from coastal wetlands several hundred feet west of mouth of Dos Pueblos Canyon Creek; low to moderate potential in unnamed eastern tributary of Dos Pueblos Creek	No impacts

[1] Taxa are arranged alphabetically.

- **Moderate** – known from within five miles of project area and project area contains suitable habitat
- **High** – known from sites less than five miles from project area and project area contains suitable habitat

Four species of special-status plants are known to occur in the project area, either as a result of surveys for this report, or previous field work (SAIC, 2004, 2005; County of Santa Barbara Special-status Species Overlay, 2005; CNDDB, 2005). These species, cliff-aster, grass-of-Parnassus, Santa Barbara honeysuckle, and water pimpernel, are all classified as locally sensitive. Twenty-six species, or 63 percent of the total evaluated for this report, were classified as having a moderate to high potential for occurrence in the project area. Eleven special-status plant species, or 27 percent of the total, were classified as having a low potential for occurring in the project area.

3.4.3.3 Special-status Wildlife

This section evaluates 80 species of special-status animals that are either known to occur in the project area or may potentially occur there because of the presence of suitable habitat and their known occurrence elsewhere in the vicinity of the project area (south coast of Santa Barbara and Ventura counties). The regional and local distribution of special-status wildlife species as well as their potential for occurring in the project area is summarized in Table 3.4-4 and more fully described in Appendix C.2. Known occurrences of special-status wildlife species and habitats in the vicinity of the MOU Project area are mapped on Figure 3.4-4. All of the special-status animals known or expected to occur in the vicinity are either listed on various watch lists published by wildlife agencies (Moyle et al., 1989; Jennings and Hayes, 1994; Remsen, 1978; Williams, 1986; Brylski et al., 1998), or are considered by local biologists to be of special concern.

The special-status wildlife species accounts in Appendix C.2 are arranged more or less systematically by major taxonomic group (arthropods, followed by amphibians, reptiles, birds, and mammals). Table 3.4-4 uses the same convention, but species are arranged alphabetically by common name within taxonomic groups to facilitate review.

3.4.3.4 Other Sensitive Biological Resources

3.4.3.4.1 Harbor Seal Haul-out Sites. The Federal Marine Mammal Act, CDFG statutes, and County LCP policies protect harbor seals (*Phoca vitulina*) and seal haul-out areas. The California Coastal Act and the County of Santa Barbara classify seal haul-out areas as ESHs. Haul-out areas are used by seals for resting, pupping, and other functions and are important to the long-term regional stability of seal populations. Formerly common along mainland beaches of the south coast of Santa Barbara County, harbor seal haul-out areas are now rare because of chronic and widespread human disturbance to these habitats. Known seal haul-out sites along the south coast of Santa Barbara County include Point Conception, Jalama, Hollister Ranch,

Table 3.4-4
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Invertebrates (10 species)					
Globose dune beetle, sandy beach tiger beetle, and Frost's tiger beetle	*Coelus globosus, Cicindela hirticollis gravida, Cicindela senilis frosti*	FSS/None	Sandy beach	*Coelus* globosus– moderate; *Cicinela hirticollis* and *C. senilis* – low	Foot traffic/trampling of habitat; beach cleaning
Monarch butterfly	*Danaus plexippus*	None/CSC (overwintering sites)	Eucalyptus windrows (roost sites); grassland and scrub (foraging)	Observed 2004, 2005; known roosts in Dos Pueblos riparian corridor and adjacent eucalyptus windrows south of Highway 101 and elsewhere	Loss of roost trees or eucalyptus groves; loss of food plants
Pinnacles optioservus riffle beetle	*Optioservus canus*	FSS/None	Riverine	Moderate	Potential changes in water quality in Dos Pueblos Creek
Point Conception Jerusalem cricket	*Ammopelmatus muwu*	FSS/None	Sand dunes	Low	No impacts
San Diego fairy shrimp	*Branchinecta sandiegonensis*	Endangered/CSC	Natural and man-made seasonal pools	Low	No impacts
San Francisco lacewing	*Nothochrysa californica*	FSS/None	Riparian woodland and scrub	Moderate	Habitat loss/fragmentation
Santa Ynez Mountains walking stick	*Timema cristinae*	None/None/Local endemic	Chaparral	High	Habitat loss/fragmentation

Table 3.4-4 (Continued)
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Vernal pool fairy shrimp	*Branchinecta lynchi*	Threatened/CSC	Natural and man-made seasonal pools	Observed in 2001 in man-made pools along UPRR tracks 0.5 miles W of Dos Pueblos Creek	Habitat loss/fragmentation
Fish (3 species)					
Southern steelhead	*Oncorhynchus mykiss*	Endangered/CSC	Riverine	Probable historical occurrence in Dos Pueblos Creek watershed, now extirpated; identity of resident rainbow trout unknown	No impacts
Arroyo chub	*Gila orcutti*	None/CSC	Riverine	High; known from other streams in vicinity; suitable habitat in remainder of permanent reaches of Dos Pueblos Creek watershed	If present, threatened by introduced fishes and crayfish, and by habitat modification of lower reaches of Dos Pueblos Creek; no project-related impacts
Tidewater goby	*Eucyclogobius newberryi*	Endangered/CSC	Estuarine and riverine	Low; probable historic occurrence in Dos Pueblos Creek, now extirpated	No impacts

Table 3.4-4 (Continued)
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Amphibians (4 species)					
California red-legged frog	*Rana aurora draytonii*	Threatened/CSC	Riverine (eggs and larvae); riparian, riparian scrub, grassland, and coastal scrub (overwintering and dispersal)	Known from lower Dos Pueblos Creek in 1992 and Tomate Canada Creek (S of UPRR tracks) in 2005; probable elsewhere in these watersheds	Loss of upland dispersal; collecting; feral and domestic cat and dog predation
Coast Range newt	*Taricha torosa torosa*	None/CSC (south of Salinas River in Monterey County)	Riverine (eggs and larvae); riparian, riparian scrub, grassland, and coastal scrub (overwintering and dispersal)	High	Loss of upland habitat; restriction of dispersal habitat; collecting; feral and domestic cat and dog predation
Foothill yellow-legged frog	*Rana boylii*	Threatened/CSC	Riverine	Low	No impacts
Western spadefoot	*Scaphiopus hammondii*	None/CSC	Natural and man-made seasonal pools (eggs and larvae); grassland/scrub (oversummering and dispersal)	Low	No impacts

Table 3.4-4 (Continued)
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Reptiles (5 species)					
California horned lizard	*Phrynosoma coronatum frontale*	None/CSC	Riparian scrub, coastal scrub, open chaparral and grassland	Moderate	Habitat loss and fragmentation; collecting; feral and domestic cat and dog predation
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	None/CSC	Coastal scrub, chaparral, open grassland	Moderate	Habitat loss and fragmentation
Silvery legless lizard	*Anniella pulchra pulchra*	None/CSC	Oak woodland, coastal scrub, dune scrub, chaparral on sandy soils	High	Habitat loss and fragmentation
Southwestern pond turtle	*Clemmys marmorata pallida*	None/CSC	Riverine, freshwater marsh, lakes, reservoirs, riparian scrub	Known from Dos Pueblos Creek watershed (date?) and from Tomate Canada Creek S of Highway 101 in 2005	Habitat loss; loss of upland overwintering, nesting, and dispersal habitat; collecting; dog and cat predation
Two-striped garter snake	*Thamnophis hammondii*	None/CSC	Riverine and adjacent scrub habitats; freshwater marsh, lakes, reservoirs, riparian scrub	High	Habitat loss; loss of upland overwintering and dispersal habitat; collecting; dog and cat predation

Table 3.4-4 (Continued)
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Birds (43 species)					
Allen's hummingbird	*Selasphorus sasin*	Migratory Nongame Bird of Management Concern/None	Riparian and eucalyptus woodland and riparian scrub (nesting)	Observed in Dos Pueblos Creek riparian corridor, 2004; probable elsewhere	Feral and domestic cat predation; eucalyptus tree cutting
American peregrine falcon	*Falco peregrinus anatum*	De-Listed/Endangered	Beaches, lagoons, reservoirs, etc., where prey congregate	Observed in project area in 2004, 2005	No impacts
Bank swallow	*Riparia riparia*	None/Threatened	Riparian woodland	Low	No impacts
Bell's sage sparrow	*Amphispiza belli belli*	None/CSC	Chaparral; coastal scrub	Moderate	Habitat loss/fragmentation
Black swift	*Cypseloides niger*	None/CSC	Grasslands, riparian corridors, scrub	Moderate	No impacts
Burrowing owl	*Athene cunicularia*	None/CSC	Grasslands, open scrub	Moderate	Habitat loss and fragmentation
California brown pelican	*Pelecanus occidentalis californicus*	Endangered/Endangered	Beach and nearshore waters	Observed in 2004, 2005	Human disturbance of daytime roosts on beach and Naples Reef
California horned lark	*Eremophila alpestris actia*	None/CSC	Grassland, open scrub	Observed in 2004, 2005	Habitat loss and fragmentation; feral and domestic cat predation

Table 3.4-4 (Continued)
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
California thrasher	*Toxostoma redivivum*	Migratory Nongame Bird of Management Concern/None	Coastal scrub, chaparral, riparian scrub	Observed in 2005, 2005	Habitat loss and fragmentation
Cooper's hawk	*Accipiter cooperi*	None/CSC	Oak woodland, riparian woodland, riparian scrub	Observed in 2004	Human and noise disturbance to nesting habitat in oak woodlands
Ferruginous hawk	*Buteo regalis*	None/CSC	Grasslands	Moderate	Fragmentation of foraging habitat
Grasshopper sparrow	*Ammodramus savannarum*	None/None/CSC	Grasslands, open scrub	Observed in 2005	Habitat loss and fragmentation; cat predation
Lark sparrow	*Chondestes grammacus*	Migratory Nongame Bird of Management Concern/None	Grasslands, agricultural fields	Observed in 2004, 2005	Habitat loss and fragmentation; cat predation
Least Bell's vireo	*Vireo bellii pusillus*	Endangered/Endangered	Riparian woodland	Low	Cowbird parasitism
Loggerhead shrike	*Lanius ludovicianus*	None/CSC	Coastal scrub, open chaparral, oak savannah	Observed in 1005	Habitat loss and fragmentation; cat predation
Long-billed curlew	*Numenius americanus*	None/CSC	Grasslands	High	Habitat loss and fragmentation
Long-eared owl	*Asio otus*	None/CSC	Riparian woodland, freshwater marsh	Historic record from reservoir area; moderate	No impacts

Table 3.4-4 (Continued)
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Merlin	*Falco columbarius*	None/CSC	Beaches, lagoons, grasslands, etc., where prey congregate	Low	No impacts
Mountain plover	*Charadrius montanus*	Threatened/CSC	Beach, grasslands	Low	No impacts
Northern harrier	*Circus cyaneus*	None/CSC	Grasslands, open coastal scrub, chaparral	Observed in 2004, 2005	Habitat loss and fragmentation
Olive-sided flycatcher	*Contopus cooperi*	Migratory Nongame Bird of Management Concern/None	Riparian woodlands	Moderate; potential nester in back canyons north of project area	Cowbird parasitism
Osprey	*Pandion haliaetus*	None/CSC	Nearshore waters, lagoons, reservoirs	Observed in 2004	No impacts
Pacific-slope flycatcher	*Empidonax difficilis*	Migratory Nongame Bird of Management Concern/None	Riparian woodland, riparian scrub	Observed in 2004	Habitat loss and fragmentation; feral and domestic cat and dog predation; cowbird parasitism
Prairie falcon	*Falco mexicanus*	None/CSC	Grasslands, chaparral, coastal scrub	Low	No impacts
Purple martin	*Progne subis*	None/CSC	Riparian woodland, riparian scrub, grasslands	Low	Starling competition
Red-breasted sapsucker	*Sphyrapicus ruber*	Migratory Nongame Bird of Management Concern/None	Riparian woodland, conifers, exotic trees	Moderate, wintering species only	Starling competition; cutting of nest trees

Table 3.4-4 (Continued)
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Sharp-shinned hawk	*Accipiter striatus*	None/CSC	Riparian and oak woodland	High	Human disturbance to winter roosts; habitat fragmentation
Short-eared owl	*Asio flammeus*	None/CSC	Freshwater marsh, grasslands	Low	No impacts
Southern bald eagle	*Haliaetus leucocephalus*	Threatened/Endangered, Fully Protected	Nearshore waters, reservoir	Historic record, low	No impacts
Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	None/CSC	Coastal scrub, chaparral, rocky grassland	Observed in 2004 and 2005	Habitat loss and fragmentation; cat predation
Southwestern willow flycatcher	*Empidonax traillii extimus*	Endangered/Endangered	Riparian woodland	Observed in 2004	Cowbird parasitism
Swainson's thrush	*Catharus ustulatus*	None/None/CSC	Riparian woodland	Observed in 2004	Feral and domestic cat predation
Swainson's hawk	*Buteo swainsoni*	None/Threatened	Grasslands, open scrub	Moderate	Habitat loss and fragmentation
Tricolored blackbird	*Agelaius tricolor*	None/CSC	Freshwater marsh, grasslands	Low	No impacts
Vaux's swift	*Chaetura vauxi*	FSS/CSC	Riparian woodland, riparian scrub, grassland	Moderate	Habitat loss/fragmentation
Warbling vireo	*Vireo gilvus*	None/None/Species of Local Concern	Riparian woodland	Moderate	Cowbird parasitism; Feral and domestic cat predation

Table 3.4-4 (Continued)
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Western meadowlark	*Wilsonia pusilla*	None/None/Species of Local Concern	Grassland, agricultural fields	Observed in 2004, 2005	Habitat loss and fragmentation; feral and domestic cat predation
Western snowy plover	*Charadrius alexandrinus nivosus*	Threatened/CSC	Beach, sand dunes	Low	No impacts
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	Proposed/Endangered	Riparian woodland	Low	No impacts
White-tailed Kite	*Elanus leucurus*	None/Fully Protected	Grassland, eucalyptus woodland, orchards	Observed in 2004, 2005	Habitat loss and fragmentation; disruption of roost sites by human presence; cutting of nest trees
Wilson's warbler	*Catharus ustulatus*	None/None/Species of Local Concern	Riparian woodland, riparian scrub	Observed in 2004	Feral and domestic cat predation
Yellow warbler	*Dendroica petechia brewsteri*	None/CSC	Riparian woodland	Observed in 2004	Cowbird parasitism; Feral and domestic cat predation
Yellow-breasted chat	*Icteria virens*	None/CSC	Riparian woodland	High	Cowbird parasitism; Feral and domestic cat predation

Table 3.4-4 (Continued)
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Mammals (15 species)					
American badger	*Taxidea taxus*	None/CSC	Grassland, riparian scrub, open chaparral and coastal scrub	High	Habitat loss and fragmentation; feral and domestic dog predation; disruption of prey resources
Big free-tailed bat	*Nyctinomops macrotis*	None/CSC	Riparian woodland	Low	No impacts
Fringed myotis	*Myotis thysanodes*	None/CSC	Riparian woodland, grasslands	Moderate	Cat predation; tree cutting
Harbor seal	*Phoca vitulina*	Federal Marine Mammal Act	Haul-out area on beach	Existing haul-out and pupping area located approximately 1,600 feet east of project area	Human and dog disturbance of colony; pup mortality; harassment; pollution
Mountain lion	*Felis concolor*	None/Fully Protected	Grasslands, coastal scrub, chaparral, riparian woodland	Resident in project area (2005 mortality record for Hwy 101 at DP Creek)	Habitat loss and fragmentation; disruption of prey resources
Pallid bat	*Antrozous pallidus*	None/CSC	Grasslands, open scrub, riparian woodland	High	Habitat loss and fragmentation; feral and domestic cat and dog predation

Table 3.4-4 (Continued)
Special-status Wildlife Species Reviewed in this Document

Common Name	Scientific Name	Federal/State/ CNPS Status	Habitat Associations in Project Area	Potential for Occurrence in Project Area	Potential Project-Related Impacts
Red bat	*Lasiurus blossevillii*	None/CSC	Riparian woodland, oak woodland	High	Feral and domestic cat and dog predation; tree cutting
Ringtail	*Bassariscus astutus*	None/Fully Protected	Riparian woodland, riparian scrub, chaparral coastal scrub	High	Feral and domestic cat predation
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	None/CSC	Grasslands, open scrub	Moderate to high	Habitat loss and fragmentation; feral and domestic dog predation
San Diego desert woodrat	*Neotoma lepida intermedia*	None/CSC	Rocky coastal scrub and chaparral	High	Feral and domestic cat predation
Spotted bat	*Euderma maculatum*	None/CSC	Riparian woodland, grasslands	Low	No impacts
Townsend's big-eared bat	*Corynorhinus townsendii townsendii* and *C.t. pallescens*	None/CSC	Riparian woodland, grasslands	Moderate	Habitat loss/fragmentation; cat predation
Western mastiff bat	*Eumops perotis*	None/CSC	Riparian woodland, rocky chaparral	Low	No impacts
Yuma myotis	*Myotis yumanensis*	None/CSC	Riparian woodland, aquatic habitats, freshwater marsh; roosting habitat north of project area	High	Habitat loss/fragmentation; cat predation

[1] Taxa are arranged alphabetically within broad taxonomic groups.

Naples, Ellwood, the sandy coastal area between Dos Pueblos and Eagle canyons, and Carpinteria Bluffs (National Park Service, 2003).

The "Naples" haul-out site is located on the property directly adjacent to the east of the project, at the mouth of Tomate Canada Canyon, approximately 1,600 feet east of the southeastern corner of the project area south of Highway 101. This site is known locally as "Burmah Beach". Over 200 harbor seals have been observed on this beach and other seal species, such as the California sea lion (*Zalophus californianus*), and northern elephant seal (*Mirounga angustirostris*), also may occasionally use this beach for resting. The latter species have apparently not used this beach for pupping or breeding (Miller et al., 1983; NMFS, 1992). The greatest number of harbor seals here are observed during the pupping and breeding season from March to July and during the early summer molting season. Smaller numbers of harbor seals occasionally haul-out on the exposed nearshore portions of Naples Reef and the adjacent beach, along the southern border of the project area (CCC, 2002; Hunt, pers. observ.).

3.4.3.4.2 Naples Reef. Local geologic and tectonic forces uplifted marine formations along the coast and created Naples Reef, an intertidal and nearshore marine ecosystem that covers approximately 19 square miles, parallels approximately 6.5 miles of the shoreline bordering the southern edge of the project area, and extends thousands of feet offshore to depths over 700 feet. The nearshore, intertidal, and subtidal portions of this feature include rocky reefs, kelp beds, sandy bottom, and eel grass communities that provide nursery, breeding, and foraging habitat for a wide variety of invertebrates, fish, and marine mammals. An intertidal wetland associated with the reef supports the highest diversity of benthic algae and intertidal and subtidal organisms in Santa Barbara County. At low tide, the exposed portions of the reef, along with the surface portions of the dense kelp beds it supports, provide foraging and roosting habitat for numerous species of shorebirds, including brown pelicans and possibly western snowy plovers, as well as haul-out areas for harbor seals (also see previous discussion of Naples seal haul-out area). The reef provides significant hard-bottom substrate for giant kelp (*Macrocystis pyrifera*), allowing this marine algae to achieve stable, high-density populations compared to kelp growing on sand or sand/mud substrates (Chambers Group, Inc., 1986). These kelp beds are a significant marine resource in this area, providing breeding, nursery, and foraging habitat for epipelagic and demersal (bottom-dwelling) fishes, including a diverse rockfish (*Sebastes* spp.) community (Chambers Group, Inc., 1986; National Park Service, 2003). Although somewhat dated, the document prepared by Chambers Group, Inc. (1986), contains a detailed discussion of the marine resources associated with Naples Reef and surrounding areas.

From a regional perspective, marine biologists consider Naples Reef and surrounding areas to be one of the most productive nearshore marine ecosystems in the Southern California Bight, an extensive region extending from Point Conception southward to the Mexican border and including the Channel Islands. Naples Reef is one of the most intensively studied marine ecosystems in southern California and is a core monitoring site for the Santa Barbara Coast Long-Term Ecological Research (LTER) Program operated by the University of California-Santa Barbara Marine Science Institute and funded by the National Science Foundation (National Park

Service, 2003; Environmental Defense Center, 2005). County of Santa Barbara policies (e.g., LCP – Coastal Plan Policy 9-33) classify Naples Reef as an ESH.

3.4.3.4.3 Wildlife Movement Corridors. Wildlife movements can be classified into three basic categories: a) dispersal (e.g., juvenile animals moving from natal areas or individuals expanding ranges); b) seasonal migration, and; c) movements related to home range activities (e.g., foraging for food or water, defending territories, or searching for mates, breeding areas, or cover). Habitat fragmentation, whether from natural processes or human activities, creates a mosaic of habitat types that are more or less connected by wildlife movements. How a species responds to a fragmented landscape largely depends on its body size. For example, large ground-dwelling (i.e., flightless) animals, such as mountain lions, coyotes, grey fox, and badgers, routinely move large distances across extensive home ranges that encompass multiple habitat types compared to small ground-dwelling wildlife, such as brush rabbits, ornate shrews, pocket gophers, meadow voles, and Pacific tree frogs, whose relatively small home ranges may include only a single habitat type.

Movement corridors are physical connections that allow wildlife to move between patches of suitable habitat. Simberloff et al. (1992) and Beier and Loe (1992) correctly state that, for most species, we do not know what corridor traits (length, width, adjacent land use, etc.) are required for a corridor to be useful. But, as Beier and Loe (1992) also note, the critical features of a movement corridor may not be its physical traits but rather how well a particular piece of land fulfills several functions, including allowing dispersal, plant propagation, genetic interchange, and recolonization following local extirpation.

These corridor functions were explicitly listed by the Federal 9th Circuit Court in 1990 in ruling on the adequacy of an EIR and thus constitute legal precedent for such analyses (Beier and Low, 1992). The following terms are frequently used in discussing wildlife movement corridors:

Dispersal corridors are relatively narrow, linear landscape features embedded in a dissimilar matrix that links two or more areas of suitable habitat that would otherwise be fragmented and isolated from one another by rugged terrain, changes in vegetation, or human-altered environments. Corridors of habitat are essential to the local and regional population dynamics of a species because they provide physical links for genetic exchange and allow animals to access alternative territories as dictated by fluctuating population densities.

Habitat linkages are broader connections between two or more habitat areas. This term is commonly used as a synonym for a wildlife corridor (Meffe and Carroll, 1997). Habitat linkages may themselves serve as source areas for food, water, and cover, particularly for small- and medium-size animals.

Travel routes are usually landscape features, such as ridgelines, drainages, canyons, or riparian corridors within larger natural habitat areas that are used frequently by animals to facilitate movement and provide access to water, food, cover, den sites, or other necessary resources. A travel route is generally preferred by a species because it provides the least amount of

topographic resistance in moving from one area to another yet still provides adequate food, water, or cover (Meffe and Carroll, 1997).

Wildlife crossings are small, narrow areas of limited extent that allow wildlife to bypass an obstacle or barrier. Crossings typically are manmade and include culverts, underpasses, drainage pipes, bridges, and tunnels to provide access past roads, highways, pipelines, or other physical obstacles. Wildlife crossings often represent "choke points" along a movement corridor because habitat is physically constricted at the crossing by human-induced changes to the surrounding areas (Meffe and Carroll, 1997).

When environments are fragmented, either naturally or as a result of human-induced changes, "islands" of suitable habitat are created that are more or less isolated from each other. Carnivores are particularly vulnerable to extinction due to habitat fragmentation because their population densities are low and they require large land areas (Noss et al., no date). Top predators such as mountain lions, coyotes, and bobcats are most likely to disappear from fragmented ecosystems. The disappearance of top predators can cause a cascading effect, including large increases in smaller predators such as grey foxes, raccoons, striped skunks, opossums, and domestic cats, a phenomenon known as "mesopredator release" (Sargeant et al., 1987; Harrison et al., 1989). Larger numbers of such mesopredators, in turn, can cause the decline and even extinction of some prey species, especially birds, because mesopredators are particularly effective predators on birds and bird nests, which are largely ignored by top predators (Soule et al., 1988). Habitat connections mitigate the effects of fragmentation by: a) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; b) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) could lead to local extinction; and c) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and shelter.

Undisturbed landscapes contain a variety of movement corridors, habitat linkages, travel routes, wildlife crossings and other habitat features that facilitate wildlife movement through the landscape and contribute to population stability. The relative size and characteristics of these features are different for each species that uses them. When landscapes are fragmented by human activities, movement corridors, habitat linkages, travel routes, and wildlife crossings may be altered or eliminated. Continued use of these features by wildlife depends on their ability to provide adequate space, cover, food, and water, in the absence of obstacles or distractions (e.g., man-made noise, lighting) that might interfere with wildlife movements.

Human-induced habitat fragmentation increases the number of wildlife crossings or "choke points" in a landscape. For example, grasslands north of Highway 101 in the project area are extensive and relatively homogeneous and may link oak woodland or scrub habitats for certain species. Ridgelines and minor drainages through these areas may provide travel routes that allow access to other habitats. However, Highway 101 and the UPRR tracks cut across broad swaths of grassland, oak woodland, and coastal scrub habitats. These transportation features are probably an impermeable barrier between the coastal plain and foothill/montane habitats to the

north for most ground-dwelling species, favoring east-west wildlife movements along the coastal plain over north-south movements. Individuals attempting to cross Highway 101 are at high risk of being killed. The riparian corridors associated with Dos Pueblos Creek, its eastern unnamed tributary and, to a much lesser extent, Tomate Canada Creek, may provide wildlife crossings through the Highway 101 barrier, but these features are "choke points" for wildlife movements because they are so narrow as they pass beneath Highway 101. These crossings are tenuous at best and may be permeable, semi-permeable, or impermeable movement corridors for ground-dwelling vertebrates, depending on the species involved, its body size, home range size, dispersal ability, and tolerance for habitat disturbance.

Riparian corridors, streams, rivers, and other such linear landscape elements are generally assumed to function as wildlife movement "corridors" between habitat patches, however, as the movements of wildlife species are more intensively studied using radio-tracking devices, there is mounting evidence that many wildlife species do not necessarily restrict their movements to some obvious landscape element, such as a riparian corridor. For example, recent radio-tracking and tagging studies of Coast Range newts, California red-legged frogs, southwestern pond turtles, and two-striped garter snakes found that long-distance dispersal involved radial or perpendicular movements away from a water source with little regard to the orientation of the assumed riparian "movement corridor" (Hunt, 1993; Rathbun et al., 1993; Bulger et al., 2002, Trenham, 2002). Likewise, carnivores do not necessarily use riparian corridors as movement corridors (Newmark, 1995; Beier, 1993, 1995; Noss, et al., 1996).

3.4.3.5 Summary of Special-status Wildlife Occurrence

Previous sections evaluated the distribution, habitat associations, and known or potential occurrence of 80 special-status wildlife species. These species are summarized in Table 3.4-3 and described more fully in Appendix C.2. Potential species were rated as having a low, moderate, or high potential for occurrence on the following basis:

- **Low** – known distribution well-documented; habitat in project area is marginal for species
- **Moderate** – known from a few records in Santa Barbara County; project area contains suitable habitat
- **High** – known from a number of records in Santa Barbara County; project area contains suitable habitat; focused surveys would likely document these species onsite

Twenty-seven special-status animals, or 34 percent of the total evaluated for this report, have been observed in the project area during surveys for this report, or from previous observations (Table 3.4-3) (SAIC, 2004, 2005; County of Santa Barbara Special-status Species Overlay, 2005; CNDDB, 2005). Observed species include two species of invertebrates, one fish, one amphibian, one reptile, 21 species of birds, and one mammal species. Thirty-two species (41 percent of the total) are considered to have a moderate to high potential of occurring in the project area. Twenty species (25 percent of the total) were classified as having a low potential for occurrence in the project area (Table 3.4-3).

Harbor seal haul-out areas, Naples Reef, and habitat connections in the project area also were evaluated in the previous sections.

3.4.4 Project Impacts and Mitigation

3.4.4.1 Thresholds of Significance

The significance of potential project-related impacts to biological resources is based on the following considerations and impact thresholds. An impact that results in long-term loss or degradation of sensitive habitat, or that adversely affects the population of a special-status species, will generally be considered significant. Sensitive habitats and special-status species are those that are demonstrably rare, threatened, or endangered, are protected by statute or regulation, or have recognized commercial, recreational, or scientific importance.

In this RDEIR, the significance of project-related impacts to biological resources is based on the County of Santa Barbara Environmental Thresholds and Guidance Manual (County, 2002). This manual primarily uses Appendix G of the State CEQA Guidelines for its criteria, which states that a project would have a significant impact on the environment if it exceeds the following thresholds:

- Conflicts with adopted environmental plans and goals of the community where it is located
- Substantially affects a rare or endangered species of animal, plant, or the habitat of a species
- Interferes substantially with the movement of any resident or migratory fish or wildlife species
- Substantially diminishes habitat for fish, wildlife, or plants

Impact evaluation is done on a project-by-project basis. Because of the complexity of biological resource issues and context, substantial variation can occur between impact evaluations on different projects. Impact assessment must account for both short-term and long-term impacts (County of Santa Barbara, 2002). Impacts are classified as significant or less than significant, depending on the size, type, and timing of the impact and the biological resources involved. Disturbance of habitats and/or species is considered significant if it affects significant biological resources in the following ways:

- Substantially reduces or eliminates species diversity or abundance
- Substantially reduces or eliminates quantity or quality of nesting areas
- Substantially limits reproductive capacity through loss of individuals or habitat
- Substantially fragments, eliminates, or otherwise disrupts foraging areas and/or access to food sources
- Substantially limits or fragments the geographic range or dispersal routes of species

- Substantially interferes with natural processes, such as fire or flooding, upon which the habitat depends

Project-related impacts to biological resources may be considered less than significant if there is little or no importance to a given habitat or if disturbance would not create a significant impact to habitats or species.

The geographic context for the analysis of impacts to biological resources is the Carpinteria-Point Conception coastline and adjacent south-facing slopes of the Santa Ynez Mountains. Impacts to special-status plants and animals are classified according to severity:

- ***Class I:*** Significant adverse impacts that cannot be feasibly mitigated or avoided. If the project is approved, decision-makers are required to adopt a statement of overriding consideration, pursuant to CEQA Section 15093, explaining why project benefits outweigh the disturbance caused by these significant environmental impact or impacts.
- ***Class II:*** Significant adverse impacts that can be feasibly mitigated or avoided. If the project is approved, decision-makers are required to make findings pursuant to CEQA Section 15091, that impacts have been mitigated to the maximum extent feasible by implementing the recommended mitigations.
- ***Class III:*** Adverse impacts that are less than significant. These impacts do not require that findings be made.
- ***Class IV:*** Beneficial impacts.

The following paragraphs describe potential impacts of the project, which are then followed by a presentation of mitigation measures. For some issues, changes in the project design have been made to reduce potential impacts, but measures to confirm implementation of these changes have been retained. The original project design, as well as the changes made since 2006, was intended to minimize encroachments into native vegetation and habitat areas. The result of this design effort is avoidance of most potential impacts. Where small encroachments into native vegetation areas are unavoidable, the effects of the project would not significantly disrupt the habitat value present. Acreages of these potential encroachments are summarized in Table 3.4-1, and described in related discussions of impacts below. The project includes an Open Space and Habitat Management Plan (OSHMP), which identifies measures to protect and manage the open space areas within the project, including expansion and restoration of native vegetation types within these areas. The end of this section includes an overall summary of impacts and mitigation measures.

3.4.4.2 Impacts to Special-status Species and Habitats

3.4.4.2.1 Special-status Plants.

Impact Bio-1: Removal of Special-status Plants Associated with Grassland Habitats. Approximately 381 acres of disturbed non-native grassland occur within the MOU

Project area, approximately 166 acres of which is dominated by ruderal or weedy invasive species. Development of the MOU Project would occur primarily in these areas currently vegetated by non-native grassland. The MOU Project would involve approximately 138 acres of direct removal of this habitat by grading, paving, and the development of buildings and development envelope area. The ability of grassland habitats in the project area to support special-status and other native plants has been affected by decades of intensive livestock grazing and agricultural production, which has converted these areas from native perennial grassland to one dominated by non-native annual grasses and forbs. For these reasons, the likelihood of encountering special-status species in the non-native grassland areas is low, relative to the less disturbed native grassland areas.

Table 3.4-3 lists four plant species that may be associated with grasslands in the project area; two species have a moderate to high potential of occurring in the project area: southern tarplant, a CNPS List 1B species (rare, threatened or endangered in California or elsewhere), and Catalina mariposa lily, a CNPS List 4 species (limited distribution). The others, with a lower potential for occurrence on the property, are Gaviota tarplant (federal and state listed as endangered and CNPS List 1B) and late flowered mariposa lily (CNPS List 1B). None of these species was recorded in prior survey work, but it is possible that one or more could be present. Onsite populations of these species could potentially be lost or significantly fragmented by construction of access roads and home sites, fuel management for fire protection, and by increased grazing pressure. The project design consolidates access roads and driveways in the coastal terrace area south of the UPRR tracks to minimize direct grading impacts to non-native grassland in this area. Vegetation management for fire protection purposes does not require the clearing of grass vegetation, but does require that grass height be kept below four inches within 30 feet of structures. Cultivation or other intensive agricultural activities will be prohibited on the agricultural and pasture lands on the SBR property south of Highway 101, thus avoiding or minimizing the potential for this type of impact. Although these components of the project design and current regulations will serve to minimize the extent of disturbance within the non-native grassland habitat, it is still possible that isolated individuals of sensitive plant species within the development areas could be affected by the project. The project's effects on native grassland (Impact Bio-7) are addressed separately, and its potential effects on sensitive grassland habitat plant species are further reduced by the incorporation of measures within the proposed OSHMP to preserve and enhance native grassland areas.

Isolated individuals or small populations of sensitive plant species in nonnative grasslands may be disturbed by the development. The MOU Project's potential impacts to special-status plants associated with grassland habitats are considered *significant, but feasibly mitigated (Class II).* Mitigation measures Bio-1a and Bio-1b address retention and enhancement of native grassland, and the handling of sensitive grassland plant species if any are encountered. Refer to Impact Bio-7 for a discussion of impacts related to native grassland habitat.

Impact Bio-2: Removal of Special-status Plants Associated with Scrub Habitats. Most or all coastal scrub and chaparral habitats found in the project area now occur north of Highway 101. Approximately 16.6 acres of land contains coastal scrub vegetation, or a mixture

of non-native grassland and coastal scrub where the latter vegetation type is becoming re-established on former grazing or orchard land. Coastal bluff scrub will not be affected by the residential development because it is restricted to nearly vertical cliff faces along the southern edges of the project area (approximately 6 acres). Of the 41 species evaluated in Table 3.4-3, at least 20 species are associated with coastal scrub plant communities. The proposed development envelopes generally avoid scrub habitats, but fuel management for fire protection around structures could degrade and/or encroach into coastal scrub habitats on the parcels north of Highway 101. In particular, the building and yard location proposed for Lot 243 would extend into the coastal scrub vegetation along the eastern portion of the MOU Project area; the total area of coastal scrub that would be directly affected is 0.32 acre. Fuel management activities would involve clearing vegetation within 30 feet of all structures and thinning scrub vegetation in accordance with state regulations and County fire department guidelines out to a distance of 100 feet from all structures. The smaller 30-foot clearance zone is contained within the defined development envelopes for all proposed lots near coastal scrub vegetation. The 100-foot thinning zone is also within the development envelopes for most lots, but several lots will require vegetation thinning activities that would extend into the nearby scrub vegetation. Vegetation thinning activities for fire control will involve a total of approximately 0.46 acre.

The grading and construction for development and the vegetation thinning for fire protection purposes could affect a number of special-status plants that are known from or potentially occur in these areas. These species include Coulter's saltbush, mesa horkelia, Nuttall's scrub oak, and Santa Ynez false-lupine, which are CNPS List 1B species, as well as black-flowered figwort, Catalina mariposa lily, Plummer's baccharis, Santa Barbara bedstraw, South Coast Range morning-glory, and suffructescent wallflower, which are CNPS List 4 species. The remaining special-status plants associated with scrub habitats are considered "locally-sensitive species." These impacts can be feasibly mitigated by implementing a fuel management plan that avoids or minimizes the removal of scrub vegetation, in conjunction with the OSHMP that incorporates enhancement of the coastal scrub vegetation. These measures are incorporated into the project design as proposed. Pre-construction surveys will further reduce the potential to affect individuals of any sensitive plant species associated with the coastal scrub habitat. The MOU Project's potential impacts to special-status plant species due to development activities and vegetation thinning in coastal scrub are considered *significant, but feasibly mitigated* (*Class II*). Mitigation measures Bio-2a and Bio-2b address retention and enhancement of coastal scrub, and the handling of sensitive coastal scrub plant species if any are encountered, respectively.

Impact Bio-3: Impacts to Special-status Plants Associated with Oak Woodland Habitats. Oak woodland habitats in the project area and throughout the coastal plain, have been significantly altered and fragmented by previous land use practices, especially those areas south of Highway 101. Extant oak woodland in the MOU Project vicinity is largely restricted to upper slopes surrounding drainages and north- and west-facing slopes above Dos Pueblos Creek and its tributaries and Tomate Canada Creek. Several plant species, none of which are endangered or threatened but are considered locally rare or otherwise sensitive, listed in Tables 3.4-2 and 3.4-3 are associated with oak woodland habitats. Additionally, oak woodland habitats are considered sensitive by State and County resource protection agencies and as such, should be

avoided by this project. The MOU Project would have no direct effects on oak woodland habitat or plant species since the nearest mapped area of this habitat type is about 1,500 feet north of the northern MOU Project boundary. The MOU Project would not fragment intact areas of oak woodland habitat from one another, or from remaining habitat along drainage courses in the vicinity. Indirect effects related to vegetation management and human occupation would be buffered by the intervening agricultural and open space areas planned within the MOU Project. For these reasons, the MOU Project effects on special-status plant species associated with oak woodland habitat would be *less than significant (Class III)*.

Impact Bio-4: Effects on Special-status Plants Associated with Riparian Woodland Habitats and Isolated Seep Habitats. These habitats include oak riparian woodland (8.5 acres) and willow riparian woodland (0.75 acre), neither of which occurs within the development envelopes proposed in the MOU Project. Along the tributary to Dos Pueblos Creek, downstream from the DPR reservoir, the access road along Lot 103 runs along the edge of existing oak riparian vegetation. No improvements to this access road are proposed outside of the existing roadbed, and no impacts are anticipated in this area. In a similar manner, the existing access road to the northwestern portion of the MOU Project (in Lot 47), is adjacent to oak and willow riparian woodland vegetation. This same access road is used by the existing residential community outside of the project area, between Lots 47 and 103, and by maintenance personnel who service the treatment plant operated by the Naples Water Company on Lot 47. No widening is proposed in the immediate vicinity of the riparian vegetation, but small areas of oak and willow riparian vegetation could be affected by erosion or sedimentation from road grading on the hillside in Lot 47. Isolated seeps that occur on slopes in grasslands in the project area (e.g., associated with west-facing grassland slopes above Tomate Canada Creek north of Highway 101), may also be indirectly affected by the project. No development is proposed in the drainages containing the seeps,

Eight species, or 20 percent, of the total number of species listed in Table 3.4-3 are associated with riparian woodland and seep habitats, including ocellated Humboldt lily, a CNPS 1B species, Sonoran maiden fern, a CNPS List 2 species (rare, threatened or endangered in California but common elsewhere), a bitter gooseberry, a CNPS List 3 species (review list, more information is needed on this species), and Fish's milkwort and Plummer's baccharis, both CNPS List 4 species. The other three species are classified as locally sensitive. Riparian woodland and seep habitats are protected by State and County regulations and are avoided by this project. Grading for access roads and building pads could cause erosion and the introduction of sediment into riparian habitat areas, adversely affecting the habitat by altering surface flows and infiltration of water or introducing pollutants associated with construction. While these affects might not be substantial since only a very small fraction of the watershed containing these riparian areas would be subject to grading, the presence or potential occurrence of sensitive plant species in the riparian areas raises the importance of this issue. The Hydrology and Water Quality section of this RDEIR (Section 3.3) addresses the potential for erosion and sediment production during construction. Mitigation measures WQ-1a, 1b, and 1d, require the implementation of Best Management Practices to control erosion and siltation during construction and proper management of stormwater runoff.

Other possible effects on sensitive plant species in riparian areas could arise from human occupation and activities, such as pesticide use and plant collection by residents. These potential impacts can be feasibly mitigated by implementing a resident and public use education program. The MOU Project's potential impacts due to direct and indirect effects on special-status plants associated with riparian woodland and seep habitats are considered *significant, but feasibly mitigated* (*Class II*).

Impact Bio-5: Introduction of Non-native Plants. Rare plant species appear to be particularly vulnerable to the changes wrought by non-native plants (e.g., the CNDDB indicates that 181 of the state's rare plant species are experiencing threats from invasive weeds [Bossard et al., 2000] and invasive species are now widely recognized worldwide as posing threats to biological diversity second only to direct habitat loss and fragmentation (Pimm and Gilpin, 1989; Scott and Wilcove, 1998). The large number of known or potentially-occurring special-status plants in the project area are vulnerable to non-native plants introduced intentionally for landscaping, weed and erosion control, or unintentionally, in livestock feed or other agricultural activities.

Non-native plant material used in landscaping as well as native plant material of unknown geographic origin used in landscaping and restoration can displace native plant communities or alter the genetic constitution of indigenous plant populations that have adapted to local climatic, soil, and hydrologic conditions. One of the goals of maintaining habitat values of open space in the project area is to protect and enhance the ecological functions of the area. Invasive species and hybridization has the potential to affect long-term genetic integrity and persistence of endemic plant communities in the project area.

Invasive, non-native plants already represent a significant fraction of plant diversity on the project area, particularly in grassland habitats and agricultural areas. For example, coastal scrub, and oak woodland habitats on and north of the MOU Project area are thoroughly invaded by veldt grass, which is gradually displacing native species by its growth habit and by increasing the frequency of fire. Extensive growth of non-native grasses may interfere with the behavior of some raptors (see Impact Bio-11 below). Blue gum (*Eucalyptus globulus*), planted as windrows south of Highway 101, alter the hydrology of drainages by their growth habits and change the chemical composition of soils by the production of allelopathic chemicals, both of which eliminate native riparian understory and aquatic plants (Bossard et al., 2000). Construction of building envelopes and access roads, fuel management for fire control, and landscaping may increase the spread of invasive, non-native plants or introduce additional invasives to the project area. The specific concerns in this regard are the creation of soil disturbance that can increase the spread of non-native species into habitat areas preserved in open space, and the introduction of non-native species intentionally, or unintentionally, through landscaping. These effects can be feasibly mitigated by specifications on vegetation clearing for fire protection purposes, restrictions on landscaping species, education of homeowners, and maintenance of open space areas including removal of invasive species. The MOU Project's potential impact from invasive, non-native plants is considered *significant, but feasibly mitigated* (*Class II*). Mitigation measure Bio-3 addresses this issue.

3.4.4.2.2 Special-status Habitats.

Impact Bio-6: Increased Beach Use and Effects on Naples Reef. Naples Reef is an intertidal and subtidal feature of exceptional local and regional biological significance. It is considered an ESH by State and County resource agencies and has significant scientific and recreational (fishing, diving, and surfing) value.

The proposed project creates a permanent human (and pet) population on existing vacant and agricultural land on the coastal terrace south of Highway 101 in close proximity to Naples Reef. The proposed public access road, parking areas, picnicking areas, and coastal access trail to the bluffs proposed to run along the eastern boundary of the project area south of Highway 101, as well as the proposed staircase down to the beach, will increase the number of visitors, residents, and their dogs to bluff top areas and the adjacent beaches. Potential impacts to the harbor seal haul-out area (see separate impact discussion Bio-10), and the intertidal and nearshore portions of Naples Reef could be significant and permanent.

Currently, beachgoers, surfers, kayakers, fishermen, and other passive recreational users occasionally use the beach and nearshore waters adjacent to the project area. No survey of user types or user frequency has been conducted for this study. However, based on casual observations over many years, usage tends to be greatest on weekends, particularly in the winter months when favorable surfing conditions exist along the Santa Barbara south coast. On a typical winter day, between 20 and 40 persons visit the surfing area along Naples Reef. The number of surfers at any one time is highly variable and many days experience little or no public use (T. Murphy, URS Corp., pers. observ.). The size of the proposed parking facility (approximately 0.75 acre, accommodating an estimated 30 vehicles) would tend to limit the number of public visitors to the beach area at any one time. The proposed trail between the parking facility and the bluff top would be approximately 0.5 miles long and would be designated and designed for passive users (hikers, bicyclists, and equestrians). These design features would tend to limit the type and frequency of visitors to the bluff and beach area. However, due to the increased accessibility afforded by the public trail system, it is anticipated that the overall frequency of beach use by project site residents and guests, as well as the public, will increase over time as the access features become more widely known. This increase in human (and potential pet) presence could result in adverse effects on the nearshore reef at Naples due to direct effects, such as illegal collecting or inadvertent destruction of tidal organisms, and indirect effects such as increased pet waste or other types of pollution. These impacts can be feasibly mitigated by placing limitations on human use of the Naples beach as part of the controls to minimize effects on the seal haul out area. The potential impacts of the MOU Project to Naples Reef resources are considered *significant, but feasibly mitigated* (*Class II*).

Impact Bio-7: Effects on Native Grasslands. The portions of the project area south of Highway 101 support at least 12.5 acres of native grasslands according to SAIC (2004, 2005), including extensive areas along seasonal drainages near the bluffs and a large contiguous patch in the northwestern corner of the area south of Highway 101 (Lot 57). Native grasses were a component of non-native grassland habitats north of Highway 101, but their density and areal

extent in this area did not meet County thresholds. Purple needlegrass was commonly associated with the highly localized interface between non-native grassland and coastal scrub in these areas north of Highway 101 where the density of non-native grasses was reduced, possibly by allelopathy.

The MOU Project has been re-designed to avoid construction of the agricultural support facility on Lot 57, as was formerly proposed. Construction of Lots 39, 63, 66, 91, 93, as well as the proposed Marine Wildlife Interpretive Kiosk in the southeastern corner of Lot 122, would place structures near mapped areas of native grasslands. Designs for these lots have also been adjusted to avoid direct impacts to mapped areas of native grassland. Fire protection requirements do not require clearing of grassland vegetation, but some areas may have to be mowed periodically to keep the vegetation height below four inches during the fire season. This type of vegetation management would typically be applied within 30 feet of structures. Such vegetation management would cause periodic and temporary affects to native grasslands. Trenching for the installation of drainage pipes will also cross native grassland vegetation, causing a temporary alteration. The public access trails are proposed generally along existing ranch roads and informal trails already cross through small areas of native grassland; but their improvement to County trail standards may have a very small additional effect. The estimated total effects on native grassland from all of these activities—fire protection, drainage line installation, and beach access trail construction—amounts to 0.22 acre.

The Open Space Habitat Management Plan includes a component to restore, preserve, and promote the growth of native grassland in appropriate open space areas. These areas will be placed in open space easements, protected from intense human activity and from invasive plant species such as veldt grass and Harding grass, and managed in a way to preserve and enhance the native grassland habitat value. Therefore, the MOU Project's potential impact to native grassland is considered *potentially significant but mitigable (Class II)*. Mitigation measure Bio-1a addresses this issue, in conjunction with identifying and managing any sensitive plant species that may be found in any of the grassland habitat in the project area.

Impact Bio-8: Construction On or Near State and Federal Jurisdictional Waters, Wetlands, and Seasonal Water Bodies. Wetlands and other seasonal water bodies in the project area occur primarily south of Highway 101 (Figures 3.4-2 and 3.4-3). These include the coastal drainages, which extend from the beach bluffs northward, and several isolated wetland areas which occur due to localized ponding in flatter areas of pastures or localized seeps associated with the coastal drainages. Streambeds or jurisdictional waters in the project area north of Highway 101, which may be affected by the project, are discussed separately in Impact Bio-9, below.

The coastal terrace south of Highway 101 supports a number of small, scattered wetlands that were delineated and mapped by SAIC (2005) as well as other seasonal water bodies that are described in Table 3.4-2. The County's CLUP Policy 9-9 requires that a 100-foot wide buffer be maintained around wetlands within the County. The MOU Project has been designed to avoid direct impacts to all of the identified wetland or seasonal water bodies, and to provide a

minimum 100 foot buffer around each one, when it was feasible to do so. Buffer distances less than 100 feet would only occur where the configuration of existing improvements precludes a greater buffer. Table 3.4-5 summarizes these and other wetlands presently mapped and their disposition in the MOU Project design.

Over the course of several years working on this RDEIR, the detailed boundaries and configurations of some seasonal water bodies on the property have varied. Some features (SAIC 9 and LHb in Figure 3.4-3), which were originally mapped as wetland or described as a seasonal water body, were not considered wetlands in subsequent surveys. Others (such as LHe in Figure 3.4-3) were not identified in the original SAIC work, but have been considered as wetlands in at least two subsequent field visits. Some of the seasonal water bodies on the property are livestock watering ponds, which are not considered wetlands by the California Coastal Act regulations (14 CCR 13577(b)(2)). The wetland areas mapped in Figure 3.4-3 represent a compilation of information from the original SAIC work and several subsequent surveys, and are intended as a general guide for design and avoidance purposes. Since the exact area and configuration of the seasonal ponds on the property is subject to change, and since it is likely to take over a year to complete the approval process for MOU Project, it will be necessary to perform final wetland delineations to confirm that the project design avoids wetland impacts as planned.

Potential indirect effects to wetlands related to erosion and sediment production during construction will be minimized through the implementation Mitigation Measures WQ 1a, 1b, 1c, and 1d. The potential impacts of MOU on jurisdictional State and Federal waters, wetlands, and seasonal water bodies are considered *significant, but feasibly mitigated* (*Class II*). Mitigation measure Bio-5 addresses seasonal wetlands.

Impact Bio-9: Construction of Stream Crossing. North of Highway 101, a stream crossing would be constructed in Lot 167 on the SBR property. In this lot, a ranch road and secondary access drive would cross Tomate Canada. The drainage channel is approximately six feet across (top-of-bank to top-of-bank) and one to two feet deep at the proposed bridge crossing location. Based on preliminary plans provided by the applicant, the proposed prefabricated metal bridge would measure 80 feet long, 20 feet wide, and two feet thick, and would be elevated approximately six feet above the existing ground surface at the centerline of the drainage. The potential area of streambed that could be impacted at this location is, thus, approximately 1,600 square feet. limited to the narrow (up to six-foot wide) drainage channel (Hunt, pers. observ., March 2005). The area of disturbance would be larger, and would involve grading for the roadways leading to and from the bridge, and an associated pad for the location of the proposed packaged wastewater treatment plant. The maximum area of disturbance within the stream banks as mapped on the preliminary grading and drainage plans is approximately 0.5 acre. Vegetation in this area is non-native grassland/weed dominated. SAIC mapped a portion of this drainage at the location of the stream crossing as "state wetland," (see Figure 3.4-2, number 13), but the nearest native vegetation is coastal scrub that extends into the drainage upstream from the proposed stream crossing. The bridge design minimizes direct impacts to the drainage channel and its associated habitat. Bridge construction activities could result in small-scale, temporary impacts to this drainage. The bridge could ultimately provide a beneficial

Table 3.4-5
Estimated Areas of Potentially Affected Federal and State Jurisdictional Waters

Site Location	Project Effect	Federal Waters (square feet/acres)	Potential Federal Waters Effect	State Waters (square feet/acres)	Potential State Waters Effect
Wetlands and Seasonal Water Bodies South of Highway 101					
Figure 3.4-3 1, 2, 3 (Lot 122), and 5 (Lot 93 on coastal bluff)	Isolated seeps, preserved in open space easements. Coastal access trail will be within 100 feet of 1, 2, and 3	Not recorded small isolated seeps	Minor fill for construction of public access trail within portion of coastal drainage. No effect on mapped wetland vegetation.	Not recorded	Section 1600 streambed and bank alteration for coastal access trail construction
Figure 3.4-3 SAIC 4, (Lot 93)	Widen Langtry Avenue	120 square feet	None. Wetland preserved.	120 square feet	None
Figure 3.4-3 SAIC 7 (Lot 66 "duck pond")	Preserve in pasture of Lot 66	Approx. 1,200 square feet	None. Wetland preserved with 100 ft. buffer.	Approx. 1,200 square feet	None
Figure 3.4-3 SAIC 8, Lot 63	Widen Ranch Road for access to Lots 12, 35, and 39	Approx. 2,800 square feet	Culvert extension of approx. 10 feet. No effect on mapped wetland vegetation.	Approx. 2,800 square feet	Section 1600 streambed and bank alteration
Figure 3.4-3 SAIC 10, Lot 97	Design public access road to avoid	Approx. 2,500 square feet	None. Public access road design with 100 foot buffer.	Approx. 2,500 square feet	None
Figure 3.4-3 LHa (Lot 93 stock pond)	Widen Langtry Avenue, build driveway	None; feature is artificial stock pond	None.	None	None
Figure 3.4-3 LH c1 and c2 (Lot 66)	Retain in private pasture land, Lot 66	None; two artificial stock ponds (bathtubs & pools)	None.	None	None

Table 3.4-5 (Continued)
Estimated Areas of Potentially Affected Federal and State Jurisdictional Waters

Site Location	Project Effect	Federal Waters (square feet/acres)	Potential Federal Waters Effect	State Waters (square feet/acres)	Potential State Waters Effect
Figure 3.4-3 LHe (Lot 69)	Preserved in private pasture land, Lot 69	Approx. 900 square feet	None. Preserved with 100 foot buffer.	Approx. 900 square feet	None
Figure 3.4-3 LHf (Lot 41)	Preserved in private pasture land, Lot 41	Approx. 500 square feet	None. Preserved with 100 foot buffer.	Approx. 500 square feet	None
Figure 3.4-3 Lot 97 Pipe	Preserved in private pasture land, Lot 97	Approx. 300 square feet	None. Preserved with 100 foot buffer.	Approx. 300 square feet	None
Figure 3.4-2 #11 (tributary to DP Creek in Lot 57)	Preserve in open space easement	Not recorded; riparian corridor	None. Preserved in agricultural/open space Lot 57.	Not recorded	None
Streambeds North of Highway 101					
Figure 3.4-2 #13 (Lot 167)	Spanning Bridge	Approx. 0.5 acre total disturbance, 1,600 square feet bridge	Approx. 0.05 acre maximum.	Approx. 0.5 ac. Maximum	Section 1600 streambed and bank alteration
Figure 3.4-2 #15, 16, and 17	Preserve in agricultural easement	Not recorded	None. Preserved with 100 foot buffer.	Not recorded	None

impact to wildlife because if properly designed and sited, it could create valuable roosting habitat for bats, swifts, and swallows. Roadways constructed near other drainages in the project area could indirectly affect riparian vegetation and wetlands in these drainages.

Potential indirect effects to wetlands related to erosion and sediment production during construction will be minimized through the implementation Mitigation Measures WQ 1a, 1b, 1c, and 1d, related to controlling erosion and runoff during construction as required by current regulations.

Potential impacts to stream channels and related vegetation and habitat are considered *significant, but feasibly mitigated* (*Class II*).

3.4.4.2.3 Special-status Wildlife.

Impact Bio-10: Effects of Increased Recreational Use on Seal Haul-out Area. An existing harbor seal haul-out area on the beach near the mouth of Tomate Canada Canyon, lies approximately 1,600 feet east of the southeastern corner of the project area and supports up to hundreds of harbor seals that use this beach for resting, breeding, and birthing pups. The beaches adjacent to the project area, as well as the nearshore portions of Naples Reef, when exposed at low tide, also provide less-used haul-out areas for seals. The Federal Marine Mammal Protection Act as well as State and County regulations protect harbor seals and their haul-out areas. The beach and nearshore waters are intermittently used by low numbers of surfers, joggers, and other recreational users, who occasionally disturb seals on the beach (Hunt, pers. observ.) (also see Impact Bio-6). The proposed project would increase the frequency and number of human (and pet) visitors to these beaches and the bluff above these beaches over existing levels, potentially resulting in increased disturbance of adult seals, increased mortality of pups, and/or site abandonment. These impacts can be minimized by imposing restrictions that would eliminate the potential for dogs on the beach and reduce the number of beach visitors for a substantial portion of the year, during the breeding season for the harbor seals. The two specific restrictions are: 1) no dogs or pets allowed on the beach at any time, and 2) no access to the beach will be allowed from March through July, the time of most use and potential breeding at the haul out site. These restrictions will be identified to homeowners and to visitors through the public education component of the OSHMP and in CC&Rs. The MOU Project's potential impacts to the seal haul-out are considered *significant, but feasibly mitigated* (*Class II*). Mitigation measure Bio-4, related to effects on Naples Reef, will also be applicable to this issue.

Impact Bio-11: Degradation of Grassland Foraging Habitat for Raptors and Other Special-status Wildlife. The extensive grasslands, oak woodlands, riparian woodlands, and scrub habitats in the project area provide high-quality foraging, roosting, and, in some cases, nesting habitat for raptors. Man-made features, such as eucalyptus windrows and orchards also provide roosting and possible nesting habitat for raptors, including turkey vultures, white-tailed kites, Cooper's hawks, red-tailed hawks, red-shouldered hawks, American kestrels, great horned owls, barn owls, and other species. Peregrine falcons, osprey, sharp-shinned hawks, and northern harriers have been observed foraging onsite. Swainson's hawks, ferruginous hawks, merlins, prairie falcons, and burrowing owls may also occasionally use habitats in the project area for foraging and roosting during late fall and winter. Fringed myotis, Yuma myotis, Townsend's big-eared bat, and pallid bat have a moderate to high potential of foraging in grassland and scrub habitats in the project area and possibly roosting in the same trees used by raptors. American badger are known to occur north of Highway 101 in or near the project area and likely inhabit grasslands south of the highway as well.

The MOU Project would eliminate foraging habitat for these species within the building envelopes and access roads in the project area. Although large areas of foraging habitat would be retained in the project design, there will be other effects that will tend to reduce the quality of habitat. These effects are related to the introduction of human development into foraging areas, and include:

- Light "pollution" which could increase at night in open spaces around development envelopes. This may be beneficial for bat foraging behavior, but may negatively affect diurnal raptors that roost in trees near these areas, as well as owls that may be foraging in these areas at night.

- Increased human and pet activity in grasslands, oak woodlands, eucalyptus windrows, and orchards in the remainder of the project area. Dogs, and especially cats, whether domestic or feral, could be a significant source of predation on prey populations used by raptors and badgers. Human and pet activity could displace or disrupt raptors and/or bats that forage, roost, and/or nest in these habitats.

- Construction of roads and access drives, which may add to the separation or fragmentation of foraging habitat. Both Highway 101 and the UPRR tracks lead to separation of the grassland and other habitats south of the highway from the more extensive habitats north of the highway. This habitat separation may affect existing small populations, and the effect may be increased by further road and driveway construction.

- Introduction of non-native grasses or the creation of conditions that favor the growth of non-native plan species. The growth of certain species of non-native grasses, in particular, Harding grass (*Phalaris aquatica*) and veldt grass (*Ehrharta calycina*), which cover extensive areas of grasslands in the foothill portions of the project area north of Highway 101, may influence predators either by affecting rodent (prey) populations or by physically interfering with raptor foraging behavior. Certain land use practices, such as soil disturbance and overgrazing, could increase the distribution and abundance of these grasses over the project area, with potential negative effects to raptors, bats, and the prey species on which they depend.

Singly and collectively, these impacts could significantly alter habitat use by raptors, badgers, bats, and other special-status wildlife species. Several features have been designed into the project to minimize these effects. These design features include: a) alterations to preserve the native grassland habitat on Lot 57; b) consolidation of access roads and driveways where possible, and the avoidance of standard curbs and gutters, fence types, and features that would hinder wildlife movement; and c) prohibitions against intensive agriculture in areas south of U.S Highway 101. These measures along with additional project conditions will reduce the potential effects of development on grassland foraging habitat. The MOU Project's potential impacts to raptors are considered *significant, but feasibly mitigated* (*Class II*). In addition to the design measures noted above, which are part of the project as proposed, Mitigation measures Bio-1a (native grassland restoration), Bio-2a (coastal scrub restoration), Bio-3 (control of nonnative plants), and Bio-9 (control of wildlife mortality) will help to minimize adverse effects on grassland foraging habitat.

Impact Bio-12: Increased Restriction of Wildlife Movements. The coastal terrace south of Highway 101 extending from Eagle Canyon westward to approximately Las Llagas Canyon, including the project area, is the broadest and most contiguous section of coastal terrace remaining as open space south of Highway 101 along the Goleta-Gaviota coastline.

Formerly extensive level ground in the Goleta Valley has been mostly eliminated by urban and agricultural development and the patches of open space that remain in these areas are relatively small and isolated. Conversion of coastal terraces and valleys to urban development along the south coast of Santa Barbara County has removed these features from the array of landscape elements used by wildlife and has forced species into areas of greater topographic relief. This type of displacement may have far-reaching effects on population densities and wildlife movements.

Field observations indicate that the coastal terrace portions of the project area south of Highway 101 may be disproportionately more important to raptors and other predators than similar habitats in the foothill and montane regions to the north (SAIC, 2004, 2005; Hunt, pers. observ.). The close association of nearly level grasslands and roost/nest sites (eucalyptus windrows and riparian corridors) on the coastal terrace may allow for relatively greater prey densities and possibly greater foraging efficiency (capture frequency) for raptors. Level ground likely presents less topographic resistance to foraging or dispersing wildlife species compared to sloping ground. Raptors may have to expend less energy per capture foraging on coastal terrace versus foothill and montane habitats in the project area, especially because roost and nest opportunities (eucalyptus windrows) are situated in close proximity to foraging habitat.

There are no data that identify the location, direction, or relative magnitude of movements of ground-dwelling wildlife within the project area or between the project area and adjacent open space areas. Furthermore, the precise corridor traits that are required for a corridor to be useful (length, width, adjacent land uses, etc.) are unknown. Noss et al. (n.d.) and Beier and Loe (1992) point out that the issue is not how wide an ideal corridor should be but whether the open space options that remain are adequate to provide functional biological linkages. There is little doubt that Highway 101 all but isolates the project area south of the highway from open space north of the highway. Dos Pueblos Creek probably provides some degree of linkage between these areas, but the riparian corridor becomes a "choke point" where it is spanned by the highway, which may limit its function as a habitat movement corridor, per the criteria discussed above. There are significantly wider, and arguably more functional habitat connections between the project area and extensive open spaces adjacent to the eastern side of the project area and extensive agricultural and open space areas west of the project area on DPR and Las Varas Ranch. Together, these factors indicate that east-west habitat linkages south of the highway are more effective than the tenuous north-south habitat connections along the Dos Pueblos Creek riparian corridor. For example, grassland specialists, such as black-tailed jackrabbits, American badgers, and grasshopper sparrows, may not use the Dos Pueblos Creek riparian corridor for dispersal at all, requiring instead broad, contiguous expanses of grassland and scrub, such as those currently found it the project area in relation to adjacent parcels.

In addition to certain non-regulated wildlife species (e.g., coyote, bobcat, grey fox, black bear), there are a number of special-status ground-dwelling wildlife species that are known to occur or potentially occur in the project area, such as California red-legged frog, southwestern pond turtle, California horned lizard, two-striped garter snake, coast patch-nosed snake, American badger, San Diego black-tailed jackrabbit, San Diego desert woodrat, ringtail, and mountain lion

(Table 3.4-4). A key feature of the natural history of most of these species is dispersal, in many cases, long-distance dispersal, between habitat patches. For example, red-legged frogs occur in the Eagle Canyon, Tomate Canada, and Dos Pueblos Creek watersheds and may move between aquatic habitats in these watersheds by traversing hundreds or thousands of feet of intervening grassland, coastal scrub, and oak woodland habitats to access these aquatic sites.

Development in uplands between these drainages could cause localized constriction of or interference with habitat linkages and could decrease use or cause certain species to abandon use of the project area in these regions. This effect would be disproportionately greater for areas south of Highway 101 because the highway, and to a lesser extent the UPRR tracks, already present a significant barrier to ground-dwelling wildlife movements between the coastal terrace and more extensive open space to the north.

The configuration of the proposed building envelopes and associated access roads on the coastal terrace portions of the project area south of Highway 101 could significantly fragment or isolate seasonal water bodies in grasslands in this portion of the project area and inhibit wildlife attempting to move east-west between the project area and open space to the east and west (e.g., between Dos Pueblos Creek and Tomate Canada Creek and other drainages), via the coastal terraces. Project construction and occupation of parcel north of Highway 101 may have similar impacts on habitat fragmentation and wildlife movements, but the magnitude here is expected to be less because of the greater extent of habitat and habitat connections north of Highway 101. For example, proposed build-out of parcels north of Highway 101 will separate Tomate Canada Creek watershed from Dos Pueblos Creek and open space to the north and west. These developments could significantly degrade the ability of this watershed and intervening uplands to function as habitat linkages and create mortality sources for wildlife attempting to move overland between watersheds.

Habitat fragmentation and/or physical barriers to overland dispersal may significantly affect the long-term population dynamics and local persistence of these species and may be disproportionately greater for small, resident species, compared to large, migratory species. Ancillary impacts could include negative effects on prey density, habitat loss, habitat fragmentation, direct mortality due to construction and occupation of development envelopes and access roads, introduction of domestic and feral cats and dogs, permanent human presence, and introduction and proliferation of invasive, non-native plants. It is expected that many or all of these species would alter their use of grassland habitats in the project area as a result of project build-out. Certain species may disappear from habitats south of Highway 101 because patch sizes and habitat connections between natural habitats after project build-out may not be extensive enough to support them.

The entire Gaviota Coast region occupies about 100,000 acres. Of this total, about 30,000 to 40,000 acres is grazing land, predominantly non-native grassland similar to the MOU Project area to be developed. Unlike the project site, however, most of the grassland habitat along the Gaviota Coast occurs on the north side of Highway 101 or areas farther inland, and is associated with steeper slopes or broader valleys that are removed from the beach and coastal bluff

environment. The broader coastal terrace containing the project site originally extended from Coal Oil Point to El Capitan Point. The easterly one-third of this coastal terrace is now developed in the City of Goleta and adjacent unincorporated areas. The remaining coastal terrace grasslands are limited to the area between Eagle Canyon on the east and El Capitan Point (or Las Llagas Canyon) on the west, occupying about 1,500 acres. Development of the MOU Project, specifically development of the SBR property south of Highway 101, will place streets and houses across about 150 acres of this remaining coastal terrace grassland. The effect of the development will be to reduce the available habitat by the area occupied by buildings and roads, and to fragment and further divide the coastal terrace grassland areas from one another.

The MOU Project design has been revised to increase the contiguous nature of grassland habitat to be preserved in agricultural and open space easements sough of Highway 101. Access roads and driveways have been consolidated as much as possible, and have been located as close as possible to the existing major travel routes (UPRR tracks, Langtry Avenue, and Dos Pueblos Canyon Road). The roadway design itself is intended to minimize the barrier effect by using rounded and natural lined drainage improvements instead of traditional curbs and gutters. The project has also been modified to preserve all federal and state wetlands, and all of the seasonal water bodies identified as wetlands, along with 100 foot buffers from any new construction. The fencing plan proposed with the project avoids barrier fences along property lines, and requires pasture fences to have designs that will allow the passage of wildlife. These measures, in conjunction with the Open Space Management Plan that will provide additional diversity and protection of habitat, serve to mitigate the contribution of the project towards the overall loss of contiguous grassland habitat along this region of the Gaviota Coast, and ensure that the degree of wildlife mobility that currently exists is at least maintained. The MOU Project's potential to affect ground-dwelling wildlife movements south and north of Highway 101 is considered *less than significant (Class III).*

Impact Bio-13: Effects on Aquatic-associated Wildlife. Riparian and aquatic habitats in the project area are primarily associated with the Dos Pueblos Creek and Tomate Canada Creek watersheds, as well as the seasonal drainages near the coastal bluffs. Special-status aquatic wildlife known or having a high potential for occurring in this watershed include: rainbow trout, arroyo chub, California red-legged frog, Coast Range newt, southwestern pond turtle, and two-striped garter snake. The proposed development envelopes do not encroach into the required 100-foot buffer around Dos Pueblos Creek or its tributaries, Tomate Canada Creek, or the unnamed drainage along the eastern border of the project area north of Highway 101. Therefore, these habitats are not likely to be directly affected by the proposed project. However, they could be indirectly affected during construction by sedimentation, bank erosion, and pollution from grading access roads and development envelopes near slopes that contribute to this watershed, as well as from runoff carrying sediment, concrete, stucco, and paint wash water, and other construction-related pollutants. Impacts associated with project occupation could be direct or indirect, including pollution from uncontrolled surface runoff from horse or other livestock facilities, sedimentation, and unauthorized collecting. Additionally, expanses of hardscape created within the development envelopes, including roads and driveways, could convey stormwater runoff laden with petroleum product contaminants to riparian areas in the Dos

Pueblos Creek and Tomate Canada Creek watersheds. The installation of extensive landscaping in an area where none has existed before could introduce landscaping chemicals, such as fertilizers, pesticides, herbicides, and fungicides, to these wetlands. These impacts could be acute in Tomate Canada Creek because proposed development surrounds this watershed on three sides. All of these potential effects relate to the generation, transport, and deposition of sediment with or without the potential contamination of man-made pollutants. Mitigation Measures WQ-1a, WQ-1b, WQ-1c, and WQ-1d, are all designed to minimize this effect. The MOU Project's potential impacts to aquatic wildlife are considered *significant, but feasibly mitigated* (*Class II*).

Impact Bio-14: Effects on Monarch Butterfly Roosts. Regionally-significant monarch butterfly overwintering roosts are associated with eucalyptus groves within and immediately west of the Dos Pueblos Creek riparian corridor south of Highway 101 (Meade Site 54 [Las Varas Ranch] and Site 55 [DPR]). The County considers both of these sites to be ESHs (Figure 3.4-4), but both are located to the west of the MOU Project area and would not be directly affected by development proposed in the MOU Project. Monarchs also may use the extensive eucalyptus windrows found along the UPRR tracks across the MOU Project Area, and along the eastern edge of the project area south of Highway 101 because of their proximity to these known roosts. Eucalyptus groves used by monarchs as autumnal and overwintering roosts are protected by State and County regulations and policies. Specifically, County Coastal Plan Policies 9-22 and 9-23 state that monarch butterfly trees shall not be removed except where they pose a serious threat to life or property, and shall not be pruned during roosting season. The policies also state that adjacent development shall be set back a minimum of 50 feet from butterfly trees. One or more regionally-important autumnal and overwintering eucalyptus groves and windrows in the project area also may provide temporary roosts for bats, such as red bats, pallid bats, Yuma myotis, and fringed myotis, which are known to use exfoliating bark on the trunks of these trees as temporary roost sites (Hunt, pers. observ.).

The MOU Project has been revised to provide a minimum of 50 feet buffer distance between any structure and the nearest tree identified as a roosting site for Monarch butterflies. This measure, in conjunction with an additional mitigation measure to monitor and restrict construction activity to avoid times when Monarch butterflies are roosting, will serve to mitigate potential effects on the butterflies. These potential impacts to monarch butterflies and their roosts are considered *significant, but feasibly mitigated (Class II)*. Mitigation measure Bio-7 addresses the issue of monarch butterflies.

Impact Bio-15: Riparian Bird Nest Parasitism. The proposed equestrian center and equestrian ranch facility south of Highway 101 and development envelopes throughout the project area that keep horses or other livestock in focused areas (corrals, barns, feeding areas, etc.), could attract brown-headed cowbirds (*Molothus ater*). The cowbird is a significant nest/brood parasite on a number of special-status riparian birds that are known to inhabit or have a moderate to high potential of inhabiting the project, such as: lark sparrow, Pacific-slope flycatcher, southwestern willow flycatcher, Swainson's thrush, warbling vireo, Wilson's warbler, yellow warbler, and yellow-breasted chat. The severe regional declines experienced by these

species throughout much of the state are linked to the proliferation of cowbirds around horse and cattle facilities located close to riparian habitats. Additionally, the project site supports a large breeding population of European starlings (*Sturnus vulgaris*), an introduced species that is a significant competitor with native birds for nest holes and adjacent roosts, such as the following special-status species that are either known to occur or potentially occur in the project area: red-breasted sapsucker, bank swallow, and purple martin. Starlings are attracted to ruderal and other modified habitats, but invade native riparian woodlands if suitable foraging habitat occurs nearby. Currently, starling flocks appears to be concentrated south of Highway 101 and along the Dos Pueblos Creek riparian corridor, in association with more intensive and chronic human disturbance. The proposed project will create foraging habitat for this species within and around the building envelopes post-occupancy north and south of Highway 101 and adjacent to the Dos Pueblos Creek riparian corridor (e.g., livestock pens, grazed pasture, etc.). These potential impacts can be feasibly mitigated by requiring certain design elements in the project plans and by a resident education program. These measures will reduce the availability of nesting sites, educate residents regarding the control of food sources that would attract the undesirable species, and provide measures such as nest removal, that will minimize the potential for adverse effects from nest parasites. The MOU Project's potential impacts to riparian and hole-nesting birds by attracting cowbirds and starlings are considered *significant, but feasibly mitigated* (*Class II*). Measures to reduce bird nest parasitism are identified in mitigation measure Bio-8.

Impact Bio-16: Effects on Beach Invertebrates. Construction of the proposed trail system and staircase from the bluffs down to the beach south of the project area would increase human and pet use of the beaches adjacent to the project area and could result in trampling of the limited sand dune and back beach habitat remaining around the mouth of Dos Pueblos Creek. These habitats may support globose dune beetles. These impacts are feasibly mitigated by implementing the restrictions on pets and on beach use during part of the year, as discussed above for Impacts Bio-6 and Bio-10 above. The MOU Project's potential impact to beach invertebrates is considered *significant, but feasibly mitigated* (*Class II*). Mitigation measure Bio-4, related to reducing effects on Naples Reef, will also apply to this issue.

Impact Bio-17: Effects on Special-status Invertebrates in Scrub and Riparian Habitats. The San Francisco lacewing and Santa Ynez Mountains walking stick are known from coastal scrub, chaparral, and riparian scrub habitats in the vicinity of the project area and have a moderate to high potential of occurring in the project area. The proposed project may indirectly affect these species if development envelopes are situated too close to these habitats. As discussed in Impacts Bio-2, the project design would preserve most of the 16.6 acres of coastal scrub vegetation, with development affecting only 0.32 acre. Fuel modification for fire control could result in modification of an additional 0.79 acre of scrub habitats harboring these species. None of the 9.25 acres of oak and willow riparian vegetation in the MOU Project area would be directly impacted by the project. The potential for the MOU Project to affect these special-status invertebrates is considered *significant, but feasibly mitigated* (*Class II*). Measures to improve and restore coastal scrub vegetation discussed in mitigation measure Bio-2a, will offset any habitat losses for these invertebrate species.

Impact Bio-18: Wildlife Mortality. The project area is currently undeveloped and grazing land, and even after project build-out would contain extensive areas of open space that abut natural habitats. Wildlife mortality due to interactions with humans during occupancy of the parcels could be significant and extend well beyond the building envelopes. Potential impacts include: a) collisions between wildlife and vehicles on access roads; b) predation by coyotes and mountain lions on domestic pets and livestock forcing action by wildlife authorities; c) attacks by mountain lions on humans; d) nuisances caused by black bears, American badgers, raccoons, skunks, opossum, woodrats, and other species around human and livestock habitations resulting in trapping, removal, and mortality; e) routine killing of certain wildlife species, such as snakes, especially rattlesnakes, around building envelopes could extirpate local populations of these predators in a short time; and f) cliff swallows and other species of swallows that breed in this area may attempt to build mud nests under the eaves of homes, barns, and other structures that property owners would try to remove, however, once eggs are laid, it is a violation of the federal Migratory Bird Act to disturb these nests until young have fledged.

Domestic and feral dogs and cats can significantly affect wildlife populations in an extensive area around building envelopes and beyond the project area, particularly amphibians, reptiles, birds, and small mammals. Domestic and feral cats and dogs may potentially prey upon each of the special-status wildlife species listed in Table 3.4-3, with the exception of mountain lions.

The use of rodenticides, pesticides, herbicides, and other chemicals and poisons toxic to wildlife outside the proposed building envelopes could have a significant negative impact on raptor and carnivore populations within and beyond the project area. Rodents, including mice, kangaroo rats, woodrats, moles, and gophers provide the prey base on which these predators depend. Household and commercially-available rodenticides can kill non-target species as well as rodents. Individually and cumulatively, these potential impacts could significantly impact wildlife populations within the project area as well as far beyond the boundaries of the project area. These impacts can be feasibly mitigated by implementing a resident and public education program in conjunction with the Open Space Management Plan proposed with the project. The potential for the MOU Project to cause wildlife mortality is considered *significant, but feasibly mitigated* (*Class II*). Mitigation measure Bio-9 addresses this issue.

Impact Bio-19: Grazing Pressure. The proposed building envelopes for most parcels are large enough to include livestock rearing areas and livestock may graze on lands outside the building envelopes. Cumulative livestock densities over the project area post-occupancy may significantly exceed pre-project grazing densities and the carrying capacity of the environment, and could result in potentially significant impacts to soil stability, riparian habitats, and other receptors of sedimentation, native grasslands, special-status plants, seasonal wetlands in grasslands, as well as the ability of these grazing lands to support native wildlife populations. The project includes a uniform agricultural management service, which will have control over all agricultural activities within the development. This component of the project will avoid the potential for overgrazing. The MOU Project's potential impacts due to grazing pressure are considered to be *less than significant* (*Class III*).

Impact Bio-20: PACE Areas. The MOU Project identifies portions of the lots outside the development envelopes as proposed private agricultural conservation easements (PACEs). Currently, some of these areas are grasslands that provide valuable foraging and nesting/denning habitat for a wide variety of special-status and non-regulated plant and animal species. Under the PACE designation, these areas on lots north of Highway 101 could be converted to row-crop agriculture (e.g., vineyards, orchards, grain fields, etc.), which could result in loss of local and regional habitat values by reducing or eliminating large areas of wildlife habitat, and interference with wildlife movements. The project design, however, also identifies areas of open space conservation easement on the north of Highway 101 to provide a degree of connection between the Tomate Canada drainage, adjacent grassland and coastal scrub areas and the larger grassland and other habitat areas to the north. South of Highway 101, the design specifies that the agricultural areas will be limited to private pasture land, where grazing will be allowed to continue in a manner similar to the existing conditions. In addition, the project design identifies riparian protection corridors within the agricultural conservation easement to ensure that the highest quality habitat areas on the property are protected. In conjunction with the Open Space Management Plan, the identification and retention of these areas for habitat management will minimize the potential effects of converting some areas of disturbed grassland to agricultural uses. The MOU Project's potential impacts to wildlife and wildlife movements caused by conversion of portions of the PACEs to row-crop agriculture north of Highway 101 is considered *adverse but less than significant* (*Class III*).

Impact Bio-21: Proposed OSCE. The proposed long-term protection of open space areas in the OSCE areas will be beneficial to biological resources. These natural areas contain valuable aquatic, wetland, and upland habitats that are known to support or potentially support a wide variety of special-status and non-regulated plants and animals (Tables 3.4-2 and 3.4-3). Protecting these areas could restore and enhance important habitats and ecological relationships in and around the project area. The habitat management plan for this project includes objectives to:

- Maintain and/or increase diversity of native vegetation plant communities.
- Maintain and/or enhance habitat and cover for native nesting birds and other native animals.
- Restore/revegetate areas containing nonnative vegetation with native vegetation and reduce nonnative species' abundance onsite
- Describe appropriate uses and restrictions to future property owners and the public with the intent of managing use and protecting habitats.
- Describe appropriate public uses and access on trails.
- Maintain the health and abundance of native grasslands onsite
- Accommodate human occupancy with the acceptable restraints

The OSHMP includes a description of the habitats to be preserved in open space, and a series of actions to maintain and enhance these areas. The various actions include measures to enhance

habitat, such as planting additional native grassland and removing non-native species, as well as prohibitions against future actions by the developer and homeowners that may be detrimental to habitat values. Typical prohibitions include not allowing the planting of any non-native species or using any herbicides or pesticides outside of designated development envelopes. The long-term protection of the proposed OSCE lands under this plan is considered a *beneficial impact* (*Class IV*).

3.4.4.3 Cumulative Impacts

Impact Bio-22: Cumulative Loss of Coastal and Foothill Habitats. The MOU Project area south of Highway 101 lies on one of the broadest and least fragmented sections of coastal terrace remaining between Goleta and Gaviota, i.e., the area between Eagle Canyon in the east and Las Llagas Canyon in the west (see Figure 3.4-4). Level open space was extensive in the Goleta Valley prior to development. Today, however, the remaining patches in this area are relatively small and isolated. Level terrain presents less topographic resistance to medium- and large-bodied wildlife species, which may allow them to expend less energy during foraging and dispersal and achieve higher population densities relative to individuals living in hilly terrain. The deeper and better developed soils on the flatter portions of the coastal terrace south of Highway 101 also support denser grassland relative to the steeper areas north of the highway. The loss of the coastal plain as a landscape element for wildlife means that many wildlife species are restricted to areas of greater topographic relief (foothills and mountainous regions). Populations that remain on the coastal plain south of Highway 101 are those species that can adapt to a fragmented landscape. Additionally, broad habitat connections between the coastal terrace and foothill areas to the north were severed decades ago by construction of Highway 101 and, to a lesser extent, the UPRR. Ground-dwelling wildlife that attempt to move in a north-south direction across these barriers put themselves at significant risk of being killed. Riparian corridors associated with large drainages (e.g., Dos Pueblos Creek, Eagle Canyon Creek, and Gato Creek) are effectively the only habitat connections between coastal and montane landscapes in this part of Santa Barbara County. Therefore, movement between these corridors is important.

In general, habitat fragmentation and isolation caused by urbanization and the creation of transportation corridors that fragment and separate coastal and montane habitats has had pervasive effects on the distribution, abundance, and movements of wildlife species, including raptors, by forcing individuals to expend more energy, exposing individuals to increased mortality moving greater distances between patches of suitable habitat, and/or to abandon some habitat patches entirely. Consequently, for the project area south of Highway 101, east-west wildlife movements along the coastal terrace between the project area and open spaces to the east and west may be more important in supporting wildlife populations than movements in a north-south direction. For these reasons, habitat connections that facilitate east-west wildlife movement south of Highway 101 are critical to the populations residing there and should be preserved to the maximum extent feasible, consistent with applicable Coastal Act and County Coastal Land Use policies.

Past developments on the coastal plain in western Goleta have already reduced the extent of the coastal terrace here and have contributed to wildlife habitat fragmentation. Wildlife movements along the coastal terrace and between coastal and montane habitats have also been restricted by these existing developments:

- Camino Real Marketplace – open space used by carnivores and raptors as foraging and/or dispersal habitat
- Glen Annie Townhomes – open space used by carnivores and raptors as foraging and/or dispersal habitat
- Glen Annie Golf Course – Devereux Creek and tributaries riparian corridors and open space used by carnivores and raptors as foraging and/or dispersal habitat
- Crown Collection – Devereux Creek riparian corridor
- Mountain View Homes – open space; carnivore and raptors foraging and/or dispersal habitat; turkey vulture roosts; monarch butterfly roosts; Phelps Ditch riparian corridor
- Winchester Commons – open space used by carnivores and raptors as foraging and/or dispersal habitat
- Storke Ranch – unnamed eastern tributary of Devereux Creek riparian corridor and coastal wetlands; open space used by carnivores and raptors as foraging and/or dispersal habitat
- Bacara Resort & Spa – Tecolote Creek and Bell Canyon Creek riparian corridors; monarch butterfly roosts; carnivore and raptor foraging and/or dispersal habitat

Several proposed residential developments near the project, including two projects proposed on the Naples town site, could contribute to the cumulative loss and/or fragmentation of existing habitats and wildlife movement opportunities along the coastal terrace south of Highway 101. Pending projects in the immediate vicinity include:

- Makar property directly adjacent to the east of the MOU Project, located on the coastal bluff east of SBR; up to 12 residential lots, including 10 lots within the 15 Naples town site lots, and two lots within the two agricultural parcels on the remainder of the property. The Naples town site lots are clustered in the western portions of the property, abutting the eastern boundary of the MOU Project area.
- Morehart property adjacent to the MOU Project area and immediately east of Dos Pueblos Creek; up to eight new units on 14 acres are proposed.
- Las Varas Ranch located west of the MOU Project area and adjacent to Las Varas Canyon Creek and Gato Creek; up to six new units on 1,800 acres are proposed.
- Eagle Canyon Ranch located east of the MOU Project area and adjacent to Eagle Canyon Creek; up to four new units on 1,060 acres are proposed.

As discussed in Section 5.5, Growth Inducing Effects, there are numerous other land holdings throughout the Gaviota Coast that have varying degrees of residential build-out potential. However, the future build-out and resulting impacts from those developments would, for the most part, affect habitat north of Highway 101.

In terms of number of residences proposed, the MOU Project is the largest of the projects proposed on the coastal terrace south of Highway 101 at this time. The proposed development would introduce 54 large-lot single family residences (25 of which would be south of Highway 101), an equestrian center, an agricultural facility, and public access features to the eastern portion of the Gaviota Coast, approximately two miles west of the City of Goleta urban/rural boundary. The proposed project, in combination with the other developments in the region, could contribute to significant cumulative local and regional impacts to existing wildlife distribution and abundance, habitat connections, and wildlife movement opportunities along the coastal plain between Eagle Canyon and Gato Creek.

As discussed in Impact Bio-12, the MOU Project's potential impacts to habitat fragmentation and potential interference with existing east-west wildlife movements south of Highway 101 are considered less than significant, given the revised project design. The project design has been modified to enlarge the contiguous areas of grassland/scrub habitat retained in private pasture and open space south of Highway 101. This was accomplished through a reconfiguration of lots within the equestrian village, minor adjustments to lots along the coastal terrace, and a realignment and consolidation of access drives and driveways. The project includes OSCEs, restrictions on conversion of existing pasture lands south of Highway 101 to row-crop agriculture, and other measures to minimize the obstruction to wildlife movement and to improve the habitat values in this area. Mitigation Bio-1a and Bio-2a, involving preserving and enhancing native grassland and scrub areas, relate to the issue of habitat continuity but can only be imposed within the MOU Project area. Future proposed projects in the region, especially the two projects located on the Naples town site lots, would further reduce habitat area and wildlife movement opportunities on the coastal terrace in the immediate vicinity of the MOU Project area.

Applying grassland and coastal scrub protection and mitigation measures to the entire area covered by the Naples town site map will help to reduce the cumulative effect of the grassland habitat loss and fragmentation of this habitat over the areas south of Highway 101, but it cannot avoid this impact entirely, and cannot undo the habitat loss that has already occurred. The value of the remaining habitat connections for wildlife movement on the MOU Project site would be diminished as the other projects further increase habitat fragmentation along this coastal terrace. This cumulative effect would remain even if those projects were to include similar mitigation, because the value of the wildlife habitat area or corridor is reduced as the corridor is incrementally lengthened or fragmented.

For these reasons, the cumulative loss of coastal terrace grassland habitat and the connectivity and movement opportunity that it provides for wildlife south of Highway 101, is considered a

significant and not mitigable impact (Class I), even if the effect of the MOU Project has been reduced below a level of significance through design changes and other mitigation measures.

The only way to avoid or substantially reduce the cumulative loss of the coastal terrace grassland habitat is to achieve a significantly reduced development intensity over the remaining portions of this habitat through a program that applies to all properties in the region of this habitat. The purpose of this type of regional conservation program would be to preserve and enhance habitat connections in the larger area so that wildlife movement through the SBR property and adjacent areas can, at a minimum, continue at pre-project levels and that wildlife populations, particularly prey populations on which raptors and carnivores depend for food, are maintained. In addition to providing for wildlife movement, large and contiguous areas of the coastal terrace grassland habitat would have to be preserved. If it is not possible to preserve a substantial portion of the coastal terrace grassland on properties in this region in a manner that provides continuity and movement opportunity, then it will not be possible to avoid this significant cumulative impact.

3.4.4.4 Mitigation Measures

Mitigation measures designed to reduce project-related impacts to biological resources are presented in this section. The following definitions are used in these mitigation measures:

- Development envelopes: include the footprint for proposed residences, barns, guest houses, ancillary structures, decks, etc.; access roads, infrastructure (sewer, utilities, lighting, signage, frontage, etc.), hardscape, and landscaping. Development envelopes include those areas associated with the farthest extent of grading for residential or related development in the project.
- Private lot areas: include the development envelope and adjacent areas within individual lot/parcel boundaries that would not be constrained by PACEs or OSCEs.
- Private Agricultural Conservation Easement (PACE) and Open Space Conservation Easement (OSCE): cover all of the remaining areas within the MOU Project, including all streambeds and buffers, and areas of existing pasture land. The areas within the PACE south of Highway 101 will also be restricted to limit agricultural uses to grazing or pasture activity similar to the current use. PACE areas north of the highway will be used for orchards or similar intensive agriculture and for pasture land. Within the PACE, riparian corridors will be retained in their present condition and will not be converted to more intensive agricultural uses. Most areas within the OSCE will be used for habitat preservation and restoration. Public access areas (trails, parking facilities, educational signage, kiosk, etc.) will also be included within the OSCE. Refer to Section 2.0 for further descriptions of these.

As the MOU Project has evolved through review of the first Draft EIR in 2006 to the present configuration in 2007, several changes and program components have been defined as parts of the MOU Project, which are intended to avoid or minimize biological impacts. Specifically, these changes are:

1. The agricultural support facility, which includes a barn, storage area, employee building, and related facilities has been shifted from Lot 57 to Lot 97, where it would be developed in conjunction with the equestrian center and associated uses. Lot 57 will be retained for a combination of open space and agricultural uses, preserving the large contiguous area of native grassland habitat, adjacent to the coast-live oak riparian woodland along the Dos Pueblos Creek tributary. This measure responds to impacts Bio-1 and Bio-7.

2. The configuration of lots in the equestrian village portion of the project has been altered to avoid identified wetland areas, and to provide a minimum buffer of 50 feet between eucalyptus windrows that may be used by monarch butterflies and the nearest proposed building sites. In most cases, the design affords a 100 foot buffer between wetland areas and the nearest hardscape—either roadway or building site. This measure reduced impacts to Bio-8 and Bio-14.

3. The configuration of lots, access roads, and driveways in both the equestrian village and along the coastal terrace adjacent to the bluffs has been modified to provide a more continuous habitat retention with open space and agricultural pasture lands, and to ensure that yards and private land areas do not encroach into grasslands and setback areas adjacent to the coastal drainages. This measure responds to impacts Bio-1, Bio-7, Bio-11, and Bio-12.

4. The access roadway for the public parking area, picnic grounds, and coastal access trail head, has been shifted to the southwest to provide a fill 100 foot buffer to the wetland in the northeast corner of Lot 97 (Figure 3.4-3 SAIC 10). This measure is part of the response to impact Bio-8.

5. Information will be provided at the coastal access trail head and in the information kiosk, and through educational materials distributed to all residents, regarding the measures to protect the marine resources present at the nearby seal haul-out beach and at Naples Reef. The measures will include the prohibition of all dogs or other pets on the beach, closure of the beach access stairway from March through July (or other time period if determined appropriate by the County). These steps were identified to respond to impacts Bio-6, Bio-10, and Bio-16.

6. Minor adjustments were made in the building locations and development envelops on Lots 63 and 91 to avoid encroachment into areas mapped with native grassland vegetation.

Besides these design changes, which have been incorporated into the MOU Project, mitigation measures to avoid or to minimize potential impacts will also be required for the project. These measures may be placed into the following categories:

A. Measures placed as specific conditions of the project approval, to be accomplished or to be incorporated into the project prior to issuance of applicable permits. Usually, these measures involve either a physical design component, physical improvement, or specific activity which must be completed prior to the final permit issuance.

B. Measures that must be identified and implemented as part of what might be considered a "short-term" plan, usually to be accomplished during grading and construction of the

project. Examples of this would be the preparation of a Stormwater Pollution Prevention Plan identifying the specific Best Management Practices to be implemented during grading and construction, or the setting forth of monitoring protocols and controls to avoid any construction activity within 50 feet of resting monarch butterflies, or nesting raptors in the eucalyptus windrow areas.

C. Measures that involve education and influencing the behavior of future residents or visitors at the equestrian center or public access points. These include the development of written handouts, posters, meetings with residents, and periodic follow-up to ensure that communication continues and addresses the issues of concern. Specific topics addressed in this fashion include the restrictions on beach access noted above, controls on the use of pesticides, specifications and limitations on landscaping that is allowed in yards.

D. Measures that have been incorporated into the OSHMP, and which involve a long-term commitment to improve the biological value of the open space areas on the property.

Mitigation Bio-1a: Protection and Revegetation of Native Grassland. Design changes in the MOU Project will retain the 2.9 acres of native grassland on Lot 57, as well as the areas of native grassland along the edges of the drainages on the coastal terrace (totaling approximately 12.5 acres). Design changes and other components of the project minimized the fragmentation of grassland habitat. The Naples Planned Development (NPD) zone proposed for the project requires preparation of an OSHMP for the project, and a preliminary OSHMP has been prepared and submitted. The OSHMP identifies objectives and actions to manage and increase the areas of native grassland habitat within OSCE areas, and to reduce the abundance of nonnative species. These measures are part of the project design and serve minimize the potential for effects to sensitive plant species occurring in grassland habitat.

Plan Requirements and Timing. Prior to issuance of any Land Use Permit or Coastal Development Permit (LUP/CDP) for development within any portion of the project, the applicant shall submit a vegetation restoration plan, either as a separate plan or as part of the final OSHMP, which shall include the following components:

- Revegetation of at least 0.66 acre of native grassland, computed at a ratio of 3:1 for the estimated 0.22 acre of native grassland that may be affected by the project
- Revegetation of native grassland to be located on Lot 122 (southeast corner of project) to convert existing nonnative grassland to native grasses adjacent to existing native grassland along the margin of the coastal drainage on this lot
- Planting details, to include the collection of seeds or source material from on-site or other suitable local source, treatment of soil and existing vegetation prior to planting, time of year and other details for planting
- Irrigation needs and methods
- Success criteria and schedule

- Monitoring details
- Contingency measures if success criteria are not achieved

These plans shall be reviewed and approved by P&D prior to the issuance of a CDP/LUP for the project. Prohibitions or requirements that would affect the home owners association or the activities of future owners and residents, as identified in the various actions of the Open Space Management Plan, shall be incorporated into the CC&Rs prepared for the project. A copy of the CC&Rs shall be submitted to P&D along with the final OSHMP for confirmation of this incorporation prior to issuance of a CDP and/or LUP for any residential structure. Required bonds or other financing arrangements shall be provided after the OSHMP has been approved, but before issuance of a CDP or LUP for any residential structure.

Monitoring. P&D and a qualified local biologist approved by the County, shall monitor Plan compliance throughout the performance period, as appropriate.

Mitigation Bio-1b: Sensitive Plant Species in Grasslands. To reduce further the potential for direct effects on sensitive grassland species, the applicant shall retain a qualified biologist, approved by the Planning and Development Department, to survey the development envelopes and other areas to be disturbed by the construction of roadways or other improvements for special-status plant species at times of the year that are appropriate for their detection. In the event any sensitive plant species are found in these areas to be disturbed, a qualified biologist shall collect seeds, bulbs, or cuttings of these species for transplantation to suitable areas within the OSCE.

Plan Requirements and Timing. Pre-construction surveys for the presence of any sensitive plant species must be completed, along with plans if necessary for the relocation of any individuals discovered, prior to the issuance of any building, grading, or other permit that would result in direct ground disturbance.

Monitoring. P&D and a qualified local biologist approved by the County, shall monitor Plan compliance throughout the performance period, as appropriate.

Mitigation Bio-2a: Protection and Revegetation of Scrub Habitat. Scrub habitats onsite include coastal bluff scrub, and coastal scrub. Most areas of these habitats are avoided by siting of building envelopes and other project features, a small area amounting to approximately 0.32 acre will be directly affected, and an area of approximately 0.79 acre may be subject to thinning for fire control purposes. The Naples Planned Development (NPD) zone requires preparation of an OSHMP for the project, and a preliminary OSHMP has been prepared and submitted. The OSHMP identifies objectives and actions to manage and increase the areas of coastal scrub habitat within OSCE areas, and to reduce the abundance of nonnative species. These measures are part of the project design and serve to minimize the potential for effects to sensitive plant species occurring in coastal scrub.

Plan Requirements and Timing. Prior to issuance of any Land Use Permit or Coastal Development Permit (LUP/CDP) for development within any portion of the project, the applicant shall submit a vegetation restoration plan, either as a separate plan or as part of the final OSHMP, which shall include the following components:

- Revegetation of at least 3.33 acre of coastal scrub vegetation, computed as a ratio of 3:1 for the estimated 1.11 acres of coastal scrub that may be affected by the project
- Revegetation of coastal scrub to be located along the Tomate Canada drainage (Lot 167 or adjacent areas) to convert existing nonnative grassland to coastal scrub adjacent to similar vegetation bordering this drainage
- Planting details, to include the collection of seeds, cuttings, or source material from on-site or other suitable local source, treatment of soil and existing vegetation prior to planting, time of year and other details for planting
- Irrigation needs and methods
- Success criteria and schedule
- Monitoring details
- Contingency measures if success criteria are not achieved

These plans shall be reviewed and approved by P&D prior to the issuance of a CDP/LUP for the project. Prohibitions or requirements that would affect the home owners association or the activities of future owners and residents, as identified in the various actions of the Open Space Management Plan, shall be incorporated into the CC&Rs prepared for the project. A copy of the CC&Rs shall be submitted to P&D along with the final OSHMP for confirmation of this incorporation prior to issuance of a CDP and/or LUP for any residential structure. Required bonds or other financing arrangements shall be provided after the OSHMP has been approved, but before issuance of a CDP or LUP for any residential structure.

Monitoring. P&D and a qualified local biologist approved by the County, shall monitor Plan compliance throughout the performance period, as appropriate.

Mitigation Bio-2b: Sensitive Plant Species in Coastal Scrub. To reduce further the potential for direct effects on sensitive plant species within coastal scrub areas, the applicant shall retain a qualified biologist, approved by the Planning and Development Department, to survey the development envelopes, and vegetation thinning areas, for special-status plant species at times of the year that are appropriate for their detection. In the event any sensitive plant species are found in these areas to be disturbed, a qualified biologist shall collect seeds, bulbs, or cuttings of these species for transplantation to suitable areas within the OSCE.

Plan Requirements and Timing. Pre-construction surveys for the presence of any sensitive plant species must be completed, along with plans if necessary for the relocation of any

individuals discovered, prior to the issuance of any building, grading, or other permit that would result in direct ground disturbance.

Monitoring. P&D and a qualified local biologist approved by the County, shall monitor Plan compliance throughout the performance period, as appropriate.

Mitigation Bio-3: Control of Non-native Plants. The applicant shall retain a qualified local biologist (approved by P&D) to review and approve the Landscaping Plan for this project. Species to be used in ornamental areas such as entrances, windrows, yards, and development envelopes, shall be appropriate for their intended use and shall be selected to minimize the potential for invasiveness or other adverse effects on nearby native vegetation. In order to protect the genetic integrity of the native plant populations on the undeveloped portions of the subject property, the Landscape Plan shall prohibit the use of non-locally collected native plants and seed materials for any native species used within or adjacent to open space areas (including plantings proposed for habitat/buffer restoration, native grassland mitigation, and landscape plantings outside perimeter fencing). Wherever native species are specified for plantings or seeding, all seed or plant material shall come from sources in the Gato Canyon, Dos Pueblos Canyon, or Eagle Canyon watersheds or, if not available, along the south coast between Carpinteria and Point Conception

The Landscaping Plan for the proposed project shall prohibit buried irrigation infrastructure outside of building envelopes and common areas. All temporary irrigation components (including pipe) shall be placed above ground in open space areas. The potential for damage to the pipe by vandalism or exposure is considered insufficient to offset the environmental damage and potential for non-native plant invasion resulting from trenching to install pipes and structures and subsequent digging to remove pipes and structures. Pipes shall be inspected frequently for leaks. All leaks shall be repaired promptly to avoid soil erosion, weed establishment, or other environmental damage.

Plan Requirements and Timing. The applicant has submitted a landscape concept plan that identifies general goals and features of landscaping and hardscaping for developed areas. This plan shall be revised and expanded into a complete landscaping plan that incorporates the above requirements (i.e., species lists, identification of sources or areas for material sources, minimize buried temporary irrigation) and be re-submitted to Planning and Development (and its consulting biologist) for County review and approval prior to approval of a Development Plan for the project. The applicant shall then finalize the Landscaping Plan, as may be required by conditions of County approval, prior to issuance of any CDP and/or LUP for a residential structure.

Monitoring. P&D and a qualified local biologist approved by the County, shall monitor Plan compliance throughout the performance period, as appropriate.

Mitigation Bio-4: Naples Reef. The CDP approved for the public coastal access trail, viewing platform, and beach access stairway, shall require that the applicant post information at

the trail head, in the public information kiosk, and at the viewing platform or top of the stairs, informing visitors that no pets are allowed on the trail and beach, and that the beach access is closed during the months of March through July. Other activity restrictions or beach access closure dates may be approved by P&D with appropriate supporting biological information. The purpose of the pet restriction and closure period is to minimize harassment and adverse effects to the harbor seal haul-out area and to minimize the effects of visitor use on the plants and animals found in the Naples Reef and adjacent beach habitat.

Plan Requirements and Timing. The applicant shall submit plans for the proposed public information and notices, and proposal for securing the beach access stairway during times when access is prohibited. Responsibility for supervising access and communicating the access restrictions to the public shall be borne by the applicant or subsequent manager and Homeowners Association. Prohibitions or requirements that would affect the homeowners association or the activities of future owners and residents, as identified in the various actions of the OSHMP, shall be incorporated into the CC&Rs prepared for the project. A copy of the CC&Rs shall be submitted to P&D along with the final OSHMP for confirmation of this incorporation prior to issuance of a CDP for the access road, parking area, coastal access trails and related facilities in Lots 93, 97, 119, and 122. Required bonds or other financing arrangements shall be provided after the OSHMP has been approved, but before issuance of a CDP for any residential structure in the Coastal Zone within the project.

P&D will review and/or request modifications to the plans and management procedures, which shall be completed prior to approval of a CDP for the access facilities.

Monitoring. P&D and a qualified local biologist approved by the County, shall monitor Plan compliance throughout the performance period, as appropriate.

Mitigation Bio-5: Seasonal Wetlands. The MOU Project design has been modified to avoid direct impacts to wetlands and seasonal water bodies, and to provide a minimum 100 foot buffer between the limit of all wetlands and all new development. Since the exact area and configuration of seasonal water bodies may change, the applicant shall conduct a formal wetland delineation after approval of the Development Plan for the project. The applicant shall provide confirmation that the project development would maintain a minimum 100 foot buffer from all delineated wetlandsthe prior to issuance of CDP or LUP for any lot containing wetlands (Lot Numbers 41, 63, 66, 69, 93, and 97). In the event that a formal wetland delineation indicates that there are no wetlands present, using the definition from the County CLUP, the applicant may modify the design for the affected lot.

Plan Requirements and Timing. The wetland delineation for each lot containing a wetland shall be reviewed by a County approved and qualified biologist and reviewed and approved by P&D staff prior to issuance of any CDP and/or LUP.

Monitoring. P&D and a qualified local biologist approved by the County, shall review all submitted plans, and shall monitor during construction to ensure that the required 100 foot buffers are maintained around mapped wetlands.

Mitigation Bio-6: Riparian Woodlands. The MOU Project design avoids direct effects on riparian woodlands and all streams on the project and in the project vicinity. The design includes use of an open span bridge to cross the Tomate Canada drainage north of Highway 101. The Tomate Canada stream corridor, and all stream corridors on the project will be retained either in open space easements or within stream corridors in agricultural conservation easements. Revegetation of approximately 1.0 acre of willow riparian scrub along the Tomate Canada drainage, will be accomplished as part of the OSHMP (see Mitigation Bio-2). The Hydrology and Water Quality section of this RDEIR (Section 9.3) addresses the potential for erosion and sediment production during construction. Mitigation measures WQ-1a, 1b, and 1d, require the implementation of Best Management Practices to control erosion and siltation during construction and proper management of stormwater runoff. No additional mitigation measures are necessary relative to the preservation of riparian woodlands.

Mitigation Bio-7: Monarch Butterflies. The MOU Project design has been revised to avoid constructing residences or major structures within 50 feet of eucalyptus windrows used for monarch butterfly resting areas. Grading and construction of access roads and building envelopes that require use of heavy equipment, including backhoes, shall be timed to avoid or minimize noise, dust, and increased human activity impacts to overwintering monarch butterflies (activities should occur between March and October). The drainage and grading plans for this project shall show eucalyptus groves and windrows within 50 feet of work areas. If grading or other heavy equipment work must occur between October and March, a qualified biologist shall survey all eucalyptus trees within 50 feet of the residential development area prior to the start of work to determine use by monarchs. If butterfly aggregations are found within 50 feet of the work area, work activities shall be halted until monarchs have left the site. An onsite environmental monitor shall monitor compliance with these requirements for the duration of construction activities.

Plan Requirements and Timing. Grading and improvement plans for lots adjacent to eucalyptus windrows or groves shall indicate their location, and show a minimum 50 foot buffer between all work areas and these trees. P&D staff shall review and approve all plans prior to the issuance of any grading or building permits.

Monitoring. P&D and a qualified local biologist approved by the County, shall confirm plans and specifications, and construction activities in the field, reflect the requirements to minimize effects on monarch butterflies.

Mitigation Bio-8: Native Bird Protection. Prior to issuance of the CDP and related permits for the equestrian center, the applicant shall provide a plan to minimize the potential of adversely impacting native breeding bird species. This plan will cover, at a minimum, the following four mitigation requirements:

A. **Brown-headed Cowbird Control:** Beginning in the first calendar year of the equestrian center boarding horses, brown-headed cowbird surveys will be conducted in and around the equestrian center. Surveys will be conducted at least four times each season (March/April, June/July, September/October, December). At least two surveys will be conducted in the morning (approximately one hour after dawn) and at least two surveys in the late afternoon (approximately three hours before sunset). If more then ten cowbirds are found on one day during the Spring or Summer survey, cowbird trapping will be required.

   Cowbird trapping will be initiated in Spring or Summer when surveys indicate that there is a significant number of cowbirds in the area. At least four modified Australian crow traps with dimensions of approximately 6 feet by 6 feet by 8 feet baited with three male and two female cowbirds, bird seed, and water will be strategically placed at the equestrian center. The traps will be opened by 15 March and will be attended daily until 15 June. Cowbirds caught in the trap will be euthanized. Trapping can be stopped prior to 15 June if cowbird populations are reduced below threshold levels and fewer than 10 cowbirds are captured two weeks in a row.

   A report detailing the annual cowbird censuses and, when applicable, trap results will be submitted to the Santa Barbara County Planning and Development Biologist and California Department of Fish and Game by 31 January. Trapping, cowbird surveys, and reporting will be conducted by a Santa Barbara County approved biologist.

B. **Nest Predator Control:** Efforts shall be made to limit nest predators in and around the equestrian center. Trash and grains will be kept in animal-proof cans and/or bins; animal waste will be cleaned up regularly and not allowed to accumulate needlessly. Rat and mouse populations will be controlled using mechanical traps and not through the use of poison. Free-roaming or feral cats will not be encouraged in and around the equestrian center.

C. **Non-native Bird Control:** Measures in the plans shall include architectural designs or installation of barriers to minimize nesting of non-native bird species (including but not limited to House Sparrow [*Passer domesticus*], feral Pigeon or Rock Dove [*Columba livia*], European Starling [*Sturnus vulgaris*]), and periodic inspections and removal of unwanted nests. Prior to the issuance of CDP or LUP for residential structures, the applicant shall incorporate design elements to minimize the potential for unwanted nesting species. These may include the use of screening to block access to eaves or openings that would attract unwanted bird species, or similar measures to minimize the attraction of the residence and yard to non-native birds.

D. **Beneficial Native Bird Encouragement:** Native birds that are beneficial in controlling pests will be encouraged in and around the equestrian center. Barn Owls and/or American Kestrels will be offered suitable nest boxes to help reduce the rodent populations that will take advantage of the augmented food supply. Barn and or Cliff Swallows will be allowed to nest in and around the equestrian center to help reduce the aerial insect population augmented by the presence of livestock and waste. Swallow nesting opportunities should be made through strategic architectural design of nesting ledges situated so as not to interfere with operations or to cause annoyance. Ledges should be wide enough to allow nesting but too narrow to allow pigeons to utilize them.

Plan Requirements and Timing. The applicant shall submit designs and a plan for the and native bird protection with the final plans for the equestrian center on Lot 97, to P&D (and its consulting biologist) for County review and approval prior to issuance of the CDP for the equestrian center. The applicant shall submit designs for controlling non-native birds, minimizing nest predators, and encouraging native bird species with the final plans for residential structures, to P&D (and its consulting biologist) for County review and approval prior to issuance of the CDP or LUP for the structures.

Prohibitions or requirements that would affect the home owners association or the activities of future owners and residents, shall be incorporated into the CC&Rs prepared for the project. A copy of the CC&Rs shall be submitted to P&D for confirmation of this incorporation prior to issuance of the CDP and/or LUP.

Monitoring. P&D and a qualified local biologist approved by the County, shall confirm plans and specifications reflect the requirements to minimize attraction of bird nest parasites.

Mitigation Bio-9: Wildlife Mortality. To minimize the effect of the project on wildlife mortality, the applicant shall identify measures that can be taken by residents and public recreational users to avoid or minimize native wildlife mortality for the life of the project. Measures applicable to visitors shall be reflected in display materials to be incorporated into the public access trail improvements (trail head, public information kiosk). Measures applicable to residents shall be identified in materials to be distributed to all new owners. At a minimum, this element shall provide for the following requirements:

- A presentation (accompanied by literature) to the home owner's association by a qualified local biologist and/or local CDFG biologist/game warden annually for a minimum period of five (5) years post-occupancy. The presentation and literature shall discuss proactive measures that landowners can implement to reduce or avoid negative human/wildlife interactions, including, but not limited to: keeping cats and dogs in at night in order to reduce predation by them on native wildlife and to prevent them from being preyed upon by coyotes and mountain lions; leash requirements for dogs on hiking trails; measures to prevent domestic cats and dogs from roaming habitats outside the building envelopes; preventing domestic cats and dogs from reproducing and becoming feral; eliminating food sources and other attractive nuisances to wildlife in and around building envelopes; impacts of non-native aquatic and terrestrial plants and animals on native wildlife and habitats; prohibitions against release of non-native animals into open spaces and collecting of native wildlife, such as turtles, frogs, and snakes; education concerning snakes shall include a discussion of the benefits of these predators for rodent control, identification of harmless species, and the alternative of capturing and moving snakes to open space areas rather than killing them; the value of swallows, black phoebes, and other eave-nesting birds for insect control, and simple, proactive, non-invasive measures that can be implemented by landowners to prevent nesting by these species on residences and other structures; and other relevant topics. These topics shall also be included in the CC&Rs for this project.

- CC&Rs for this development shall prohibit the use of rodenticides, pesticides, herbicides, and other chemicals and poisons toxic to wildlife outside the proposed building envelopes. Rodenticides are to be used only within building envelopes and snap traps or other mechanical control methods shall be emphasized over chemical control methods where feasible.
- CC&Rs for this development shall prohibit the introduction of non-native plants and animals into aquatic and terrestrial habitats outside the building envelopes (e.g., placing non-native fish, bullfrogs, or turtles into the reservoir on the unnamed eastern tributary of Dos Pueblos Creek).
- Biological resource protection signage shall be installed at trailheads and other open space access points. At a minimum, hiking and equestrian trails in the project area and Open Space Areas shall be posted with signs warning hikers that mountain lions, black bear, and coyotes inhabit these areas and that proper precautions with small children and dogs shall be taken to avoid interactions. The signs shall advise hikers that small children must be kept close to adults to protect them from mountain lions, dogs must be kept on leashes to protect them from coyotes and mountain lions and for the general protection of wildlife, and that collecting of native plants and animals is prohibited.
- The applicant shall post a speed limit of 20 mph or less on all access roads.

The applicant shall post a bond or provide for alternate funding sufficient to cover the costs of the annual resident education program and associated literature, and for creating and placement of the specified signage, and sign upkeep. P&D (or its designated biologist) shall determine the amount of funding and shall verify that funding has been committed prior to issuance of the CDP and/or LUP. A Trail Sign Plan, including proposed wording and location of signs, shall be prepared by the applicant for review and approval by P&D staff and a qualified local biologist prior to issuance of the CDP and/or LUP. The Trail Sign Plan shall accompany all plans submitted for approval for project construction. Trail signs shall be posted prior to project occupancy.

Plan Requirements and Timing. The applicant shall submit plans and related materials to P&D (and its consulting biologist) for County review and approval prior to the issuance of the CDP for the public access improvements (parking area, picnic area, coast access trail, beach stairway). The applicant shall submit plans and material related to the residential education program to P&D (and its consulting biologist) for County review and approval prior to the issuance of the first CDP or LUP for residential development.

Prohibitions or requirements that would affect the home owners association or the activities of future owners and residents, shall be incorporated into the CC&Rs prepared for the project. A copy of the CC&Rs shall be submitted to P&D for confirmation of this incorporation prior to issuance of the CDP and/or LUP.

Monitoring. P&D staff and/or its consulting biologist shall monitor program compliance twice per year for a period of five (5) years after completion of all public access trails and related recreational facilities.

3.4.4.5 Residual Impacts

The mitigation measures listed above would mitigate *Class II* impacts. Impact Bio-22, the cumulative loss of coastal terrace grasslands along the Gaviota Coast, is considered significant and unmitigable.

Table 3.4-6 summarizes biological resources impacts, mitigations measures, and residual impacts.

Table 3.4-6
Summary of Project-related Impacts and Mitigation Measures

Impact Number	Impact Classification[1]	Mitigation Measures	Residual Impact[2]
Bio 1 (Removal of special-status species in grassland habitat)	II	Bio-1: Grassland Plants	NS
Bio 2 (Removal of special-status plants in scrub habitats)	II	Bio-2: Scrub Habitat	NS
Bio 3 (Oak woodland plants – less than significant)	III	None necessary	NS
Bio 4 (Effects on special-status species in riparian woodland habitats and isolated seeps)	II	Indirect effects only, mitigated by WQ-1a, 1b, and 1c	NS
Bio 5 (Introduction of non-native plants)	II	Bio-3: Control of Non-native Plants	NS
Bio 6 (Increased beach use and effects on Naples Reef)	II	Bio-4: Naples Reef	NS
Bio 7 (Effects on native grasslands)	II	Bio-1: Grassland Plants	NS
Bio 8 (Effects on wetlands or seasonal water bodies)	II	Bio-5: Seasonal wetlands	NS
Bio 9 (Construction of stream crossing)	II	Bio-6 Riparian woodlands, combine with Mitigation Bio-2; indirect effects mitigated by WQ-1a, 1b, and 1d.	NS
Bio 10 (Effects of increased recreational use on seal haul-out area)	II	Bio-4: Naples Reef	NS
Bio 11 (Degradation of grassland foraging habitat)	II	Design changes, and Bio-1: Grassland Plants, Bio-3: Control of Non-native Plants, and Bio-9: Wildlife Mortality	NS
Bio 12 (Increased restrictions on wildlife movements)	III	Bio-1 Grassland Plants, Bio-2 Scrub Habitat	NS
Bio 13 (Effects on Aquatic-associated wildlife)	II	Bio-4: Naples Reef	NS
Bio 14 (Effects on Monarch butterflies)	II	Bio-7: Monarch Butterflies	NS
Bio 15 (Riparian bird nest parasitism)	II	Bio-8: Native Bird Protection	NS
Bio 16 (Effects on Beach invertebrates)	II	Bio-4: Naples Reef	NS
Bio 17 (Effects on Scrub invertebrates)	II	Bio 2: Scrub Habitat	NS
Bio 18 (Wildlife mortality)	II	Bio-9: Wildlife Mortality	NS
Bio 19 (Grazing pressure)	III	No mitigation necessary	NS

Table 3.4-6 (Continued)
Summary of Project-related Impacts and Mitigation Measures

Impact Number	Impact Classification[1]	Mitigation Measures	Residual Impact[2]
Bio 20 (Agricultural Conservation Areas)	III	No mitigation necessary	NS
Bio 21 (Proposed OSCE)	IV	No mitigation necessary	NS
Cumulative Impacts			
Bio 22 (Cumulative loss and fragmentation of coastal and foothill habitats)	I	Bio-1 Grassland Habitat, Bio-2 Scrub Habitat, OSCE, PACE, and OSHMP help to reduce project contribution. Cumulative effect remains significant.	S (south of Hwy 101)

[1] The following categories are used for classifying impacts to biological resources:

Class I: Significant adverse impacts that cannot be feasibly mitigated to less than significant levels or avoided. If the project is approved, decision-makers are required to adopt a statement of overriding consideration, pursuant to CEQA Section 15093, explaining why project benefits outweigh the disturbance caused by these significant environmental impact or impacts.

Class II: Significant adverse impacts that can be feasibly mitigated to less than significant levels or avoided. If the project is approved, decision-makers are required to make findings pursuant to CEQA Section 15091, that impacts have been mitigated to the maximum extent feasible by implementing the recommended mitigations.

Class III: Adverse impacts are less than significant. These impacts do not require that findings be made.

Class IV: Beneficial impacts.

[2] S= Significant (even after mitigation is implemented); NS = Not significant (following implementation of mitigation)