

**APPENDIX C.
BIOLOGICAL RESOURCES
BACKGROUND INFORMATION**

**BIOLOGICAL RESOURCES ASSESSMENT
STORIES OF THE RANCHO PROJECT
DANA ADOBE NIPOMO AMIGOS
APNs: 090-171-011, 090-171-030, 090-171-031,
090-171-032, 090-171-036
Nipomo, California**

Prepared for:

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December 2011

“As a County-approved biologist, I hereby certify that this Biological Resources Assessment was prepared according to the Guidelines established by the County of San Luis Obispo Department of Planning and Building and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge and belief; and I further certify that Terra Verde staff were present throughout the site visit(s) associated with this report.”



Signature line

14 December 2011

Date

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EXECUTIVE SUMMARY

This biological resources assessment was prepared at the request of Dana Adobe Nipomo Amigos for a property located off of South Oakglen Avenue, in the community of Nipomo, near the southern boundary of San Luis Obispo County, California (APNs: 090-171-011, 090-171-030, 090-171-031, 090-171-032, and 090-171-036). Dana Adobe Nipomo Amigos is a non-profit organization proposing to design and construct the Stories of the Rancho Project, which will include construction of the following facilities: an approximately 6,266-square foot (sf) visitor and education center, administrative office and curator's building; an approximately 1.4-mile long interpretive nature trail system (including landscaping, benches, and fencing); Native American interpretive features (including a living Chumash village, Knapping exhibits, story boulders, Native American gardens, and painted caves); a native habitat interpretation and restoration area; two picnic areas; support facilities; and associated infrastructure (i.e., parking area, trash enclosures, restrooms, fencing, landscaping and irrigation, lighting, utility connections, walkways, a wastewater facility, and drainage/erosion control). The proposed project would include crossings of Nipomo Creek (emergency access), Adobe Creek (new foot bridge), and Carillo Creek (new foot bridge).

The project site encompasses approximately 130 acres, almost all of which will be utilized and disturbed for implementation of the proposed project. A majority of the development and permanent structures will be situated on the 30 acres of APN 090-171-011 and 090-171-036 (30-acre area), with the interpretive nature trails primarily occurring on the 100 acres east of Nipomo Creek (100-acre area; APNs 090-171-030, 090-171-031, and 090-171-032).

The 30-acre area (APN 090-171-011 and 090-171-036) is partially developed with the historic Dana Adobe building, an unpaved driveway, and a small, unpaved parking area. Most of this existing development occurs on APN 090-171-011, while most of APN 090-171-036 is undeveloped and supports horse pasture dominated by non-native grassland. The project site will primarily be accessed at 671 South Oakglen Avenue, via a new paved parking lot. In order to provide emergency access to the site, a secondary drive has been proposed, which will be accessible at South Oakglen Avenue and South Thompson Avenue and will include a bridge over Nipomo Creek. The emergency access would traverse the entire 100-acre area from east to west through approximately 1,500 feet of agricultural fields, which have been overgrown with non-native annual grassland and weedy species.

Dana Adobe Nipomo Amigos is also working with the County of San Luis Obispo (County) and the Land Conservancy of San Luis Obispo (LCSLO) to implement a native habitat restoration project on the 100 acres east of Nipomo Creek (APN 090-171-030, 090-171-031, and 090-171-032). To date, 10,000 riparian plants have been planted along Adobe Creek and Carillo Creek within the 100-acre area of the proposed project site. Both creeks drain into the main stem of Nipomo Creek. The County has committed to plant 3,500 oak trees and 2.5 acres of native coastal chaparral vegetation within the

project site. In addition to restoring native riparian vegetation along the watercourses on site, the Applicant proposes to repair a headcut that has formed in Carillo Creek at the western-most reach of the creek, before it drains into Nipomo Creek. This will improve and protected water quality in both Carillo and Nipomo Creeks.

The severe headcut has formed as a result of a buried pipe, which sticks out of the bank into the creek channel. Flows out of the pipe have resulted in excessive channel and bank erosion. The Applicant proposes to cut the pipe back into the bank, cap the end, and then rebury it. This effort will result in disturbance of approximately 0.36 acres within and adjacent to Carillo Creek, which will be restored by the Applicant after completion. California Department of Fish and Game (CDFG), U.S. Army Corps of Engineers (Corps), and Regional Water Quality Control Board (RWQCB) permits will be needed for this component of the proposed action.

Terra Verde Environmental Consulting (Terra Verde) staff conducted three field surveys relevant to this property: May 31, 2010 and May 19 and 25, 2011. The survey conducted in 2010 focused only on the parcels of the project site west of Nipomo Creek, totaling approximately 30 acres (APN 090-171-011 and 090-171-036). The 2011 surveys encompassed the entire 130-acre proposed project site. Four main vegetation communities were identified within the survey area: grassland, riparian, coastal scrub, and seasonal wetland.

The survey area has the potential to support 21 sensitive plant species, none of which were observed during appropriately timed field surveys. The survey area also has the potential to support 16 sensitive wildlife species, one of which was observed during field surveys. Additionally, one sensitive wildlife species is documented as occurring in Nipomo Creek within the project vicinity: California red-legged frog (*Rana draytonii*). The proposed project may impact Nipomo Creek and the associated riparian vegetation, as well as the surrounding non-native grassland, and a small area of coastal scrub.

Mitigation measures are offered to minimize any potential impacts to sensitive resources during implementation of this project. Identified potential impacts are mostly associated with construction activities and not with long-term effects, although some long-term and cumulative impacts will result due to the nature of the proposed development, which will encourage regular visitors to the site.

INTRODUCTION

Dana Adobe Nipomo Amigos (Applicant) is pursuing the necessary permits and authorizations to fulfill environmental review requirements under the California Environmental Quality Act (CEQA). The proposed activities will involve grading and infrastructure improvements necessary to support the proposed facilities. A total of approximately 130 acres will be developed or disturbed as a result of the proposed project. The project site occurs on both public land (100-acre area) and private land (30-acre area), and is bordered by South Thompson Avenue and private residences to the east, South Oakglen Avenue to the west, and a mixture of agricultural fields and private residences to the north and south. Nipomo Creek, Carillo Creek, and Adobe Creek run through the proposed project site. The Applicant has requested a summary of short-term, long-term, cumulative, and otherwise significant environmental impacts associated with the project as part of this report.

The project site is situated between South Oakglen Avenue and South Thompson Avenue, and straddles Nipomo Creek, within San Luis Obispo County, California (see Appendix A: Figure 1- Location Map). It is most readily accessed from South Oakglen Avenue. Emergency access will be developed as part of this project, and will extend from the new paved parking lot at 671 South Oakglen Avenue, over Nipomo Creek, and connect to South Thompson Avenue at the eastern boundary of the project site. This emergency access will be used primarily in case of emergency, as well as occasionally for maintenance vehicles, agricultural equipment, and access associated with the restoration effort along the three creek corridors on site.

The project site is located within the Nipomo United States Geological Survey (USGS) 7.5-minute topographic quadrangle and encompasses the five parcels that have been assigned the APNs: 090-171-011, 090-171-030, 090-171-031, 090-171-032 and 090-171-036 (see Appendix A: Figure 2 - Topographic Map). The project site is located within the Nipomo Watershed, Hydrologic Unit Code # 18060008 (USGS, 1978).

METHODOLOGY

Terra Verde conducted a biological resources assessment (BRA) within the previously defined survey area. The County of San Luis Obispo (County) is the lead agency under CEQA, and as such, has the primary authority for approval of the proposed project. The purpose of this report is to document the results of the biological and botanical surveys conducted within the survey area, which include:

- Characterization of the vegetation communities present within the survey area;
- creation of a list of regionally occurring special-status species determined to have the potential to occur within the vegetation communities identified within the survey area (i.e., target species list);
- evaluation of the potential for the occurrence of special-status plant and wildlife species within the survey area;

- determine the presence/absence of special-status plant species within the survey area, based on the target species list;
- report the results of the survey conducted within the survey area;
- characterization and determination of the approximate boundaries of wetlands and other waters of the U.S. if present within the survey area;
- review existing relevant scientific literature and other pertinent information related to the project site;
- assess the potential for the proposed project to adversely impact biological or botanical resources;
- summarize the short-term, long-term, cumulative, and otherwise significant impacts associated with the proposed development; and
- recommend mitigation measures designed to avoid or minimize any project-related impacts to biological resources.

This report is prepared according to the guidance provided by the County for biologists that are pre-approved for environmental work within the County and meets all of the associated County requirements.

For the purposes of this report, the survey area includes the entire 130-acre project site and an approximately 100-foot wide buffer surrounding the proposed development and disturbance areas. Terra Verde staff Brooke Langle and Kristie Haydu conducted a field survey within the 30-acre area on May 31, 2010. This survey covered the portion of the project site that has been assigned the APN 090-171-011 and 090-171-036. An additional field survey was conducted within the entire 130-acre proposed project area by Terra Verde staff Brooke Langle, Jessica Adinolfi, and Kyle Giacomini on May 19 and 25, 2011. Since that period, Terra Verde staff members Brooke Langle, Brian Dugas, and Amy Keate have made focused visits to the site to review Carillo Creek and the surrounding areas. Spring field surveys were pedestrian in nature and lasted approximately three hours. During the surveys, the vegetation communities on site were classified and further evaluated for the occurrence of and the overall potential to support special-status plant and wildlife species. Habitat characterization was based on the classification systems presented in *A Manual of California Vegetation* (MCV) (Sawyer, Keeler-Wolf, and Evens 2008) and *California Vegetation* (Holland and Keil 1995), but has been modified to reflect the existing site conditions. All visible plant and wildlife species encountered were noted and identified to the most specific possible taxonomic level, which is required for accurate identification and reporting. The timing was suitable for detection of all potentially occurring sensitive plant species.

All tracks, scat, or signs of wildlife observed on site were also noted. Plant species identification, nomenclature, and taxonomy followed the *Jepson Manual: Higher Plants of California* (Hickman 1993) and the *Jepson Online Interchange* (Rosatti 2009). Wildlife identification, nomenclature, and taxonomy followed standard reference texts including: *Sibley Field Guide to Birds of Western North America* (Sibley 2003), *Field Guide to Western Reptiles and Amphibians* (Stebbins 2003), and *Mammals of California* (Jameson and Peeters 2004).

Prior to conducting the field surveys, Terra Verde staff reviewed the following resources:

- Aerial photographs and draft development plans of the project site;
- U.S. Geological Survey Nipomo, CA 7.5-minute topographic quadrangle;
- online Soil Survey of San Luis Obispo County, California – Nipomo Area (Natural Resources Conservation Service (NRCS) 2011);
- a U.S. Fish and Wildlife Service (USFWS) list of federally listed special-status species with potential to occur within the County (USFWS, 2011);
- a California Natural Diversity Database (CNDDDB) list of state and federally listed special-status species with potential to occur within the Nipomo, CA 7.5-minute quadrangle and the surrounding 7.5-minute quadrangles (Arroyo Grande NE, Caldwell Mesa, Guadalupe, Huasna Peak, Oceano, Santa Maria, Tar Springs Ridge, and Twitchell Dam) (California Department of Fish and Game (CDFG) 2011);
- a CNDDDB map of state and federally listed special-status species that have been documented within a five-mile radius of the project site (CDFG 2011); and;
- a California Native Plant Society (CNPS) list of special-status plant species with potential to occur within the Nipomo, CA 7.5-minute quadrangle and the surrounding 7.5-minute quadrangles (CNPS 2011).

A complete list of all of the regionally occurring special-status species reported in the scientific database queries was compiled for the project site (see Appendix B: Potential Sensitive Species List). An analysis to determine which of these special-status species have the potential to occur within the survey area was conducted. The habitat requirements for each special-status species were assessed and compared to the type and quality of habitats observed on site during the field surveys. Several special-status species were eliminated due to lack of suitable habitat within the survey area, elevation range, lack of soils/substrate, and/or distribution. As previously mentioned, the analysis was also based on a review of resource agency materials, pertinent scientific literature, aerial photography of the project site, topographic maps of the project site, and other local information. Special-status species determined to have the potential to occur within the survey area are discussed below. Special-status species that were not determined to have the potential to occur within the survey area are not discussed further in this report.

RESULTS

No sensitive plant species were observed on site during the field surveys. One sensitive avian species, white-tailed kite, (*leucurus*) was observed during the surveys and a federally threatened species, California red-legged frog (*Rana draytonii*), was historically documented as occurring within the riparian habitat that occurs on the project site. This section summarizes the results of the field surveys that were conducted within the survey area and provides further analysis of the data collected in the field. Discussions regarding the existing site conditions, soils on site, vegetation communities, including terrestrial

and aquatic habitat types identified on site, and potentially occurring special-status species are presented below.

Existing Site Conditions

The project site is located near the southern boundary of San Luis Obispo County, within the community of Nipomo. Elevations within the project site range from approximately 76 to 95 meters (m) or 250 to 310 feet above mean sea level (msl). The project site is located adjacent to agricultural fields and a few private residences. Three creek corridors associated with Nipomo Creek, Adobe Creek, and Carillo Creek, occur on the proposed project site. The site is bordered by South Thompson Avenue on the east, South Oakglen Avenue on the west, and primarily privately-owned agricultural lands to the north and south, with a few private residences along the southern and eastern boundaries.

The climate within the County is highly variable and ranges from a cool, coastal climate in the west to a hotter, more typical Mediterranean climate in the east. The project site is located within the Central Coast Ranges along State Highway 101. This region of the County receives limited coastal fog and is considered to have a less strong maritime influence than the coast.

Soils

According to the NRCS online soil survey of San Luis Obispo County, seven soil units occur within the survey area (NRCS 2011): Diablo clay, Diablo and Cibo clays, Marimel silty clay loam, Oceano sand (0 to 9 percent slopes), Oceano sand (9 to 30 percent slopes), Tierra loam, and Zaca clay, which are discussed below. The soil review for this report is directed at determining the conditions present in regard to the potential to support special-status species or wetland habitats. As such, this information should not be construed as a detailed soil analysis.

129 – Diablo clay, 5-9 percent slopes

The Diablo clay component makes up approximately 10 percent of the map unit. The parent material of this soil type is residuum weathered from mudstone, sandstone, and/or shale. The natural drainage class of this unit is well drained, and it is composed of clay over weathered bedrock. Diablo clay soils tend to occur on backslopes and summits. This soil unit does not have any listed hydric components or inclusions that meet the hydric soils criteria.

130 – Diablo and Cibo clays, 9-15 percent slopes

The Diablo and Cibo clay component makes up approximately five percent of the map unit. The parent material of this soil type is residuum weathered from mudstone, sandstone, and/or shale. The natural drainage class of this unit is well drained, and it is composed of clay over weathered bedrock. Diablo and Cibo clay soils tend to occur on backslopes and summits. This soil unit does not have any listed hydric components or inclusions that meet the hydric soils criteria.

170 – Marimel silty clay loam, 0-2 percent slopes

The Marimel component makes up approximately 13 percent of the map unit. The parent material of this soil type is alluvium derived from sedimentary rock. The natural drainage class of this unit is well drained, and it is composed of silty clay loam and stratified loam to clay loam to silty clay loam. Marimel soils tend to occur on alluvial fans and in valleys. This soil unit does not have any listed hydric components or inclusions that meet the hydric soils criteria.

184 – Oceano sand, 0-9 percent slopes

The Oceano (0-9 percent slopes) component makes up approximately seven percent of the map unit. The parent material of this soil type is Eolian deposits. The natural drainage class of this unit is excessively drained, and it is composed entirely of sand. Oceano soils tend to occur on dunes and toeslopes. This soil unit does not have any listed hydric components or inclusions that meet the hydric soils criteria.

185 – Oceano sand, 9-30 percent slopes

The Oceano (9-30 percent slopes) component makes up approximately five percent of the map unit. The parent material of this soil type is Eolian deposits. The natural drainage class of this unit is excessively drained, and it is composed entirely of sand. Oceano soils tend to occur on dunes and toeslopes. This soil unit does not have any listed hydric components or inclusions that meet the hydric soils criteria.

218 – Tierra loam, 15-30 percent slopes

The Tierra component makes up approximately 11 percent of the map unit. The parent material of this soil type is alluvium derived from sedimentary rock. The natural drainage class of this unit is moderately well drained, and it is composed of loam, clay, and sandy clay loam. Tierra loam soils tend to occur on terraces, backslopes, summits, and toeslopes. This soil unit does not have any listed hydric components or inclusions that meet the hydric soils criteria.

224 – Zaca clay, 9-15 percent slopes

The Zaca component makes up approximately 49 percent of the map unit. The parent material of this soil type is residuum weathered from calcareous mudstone, sandstone, and/or shale. The natural drainage class of this unit is well drained, and it is composed of clay and silty clay over weathered bedrock. Zaca soils tend to occur on summits and backslopes.

Vegetation Community

Four vegetation communities were observed within the survey area: grassland, riparian, coastal scrub, and seasonal wetland. A map that illustrates the extent of the vegetation on site is included for reference (see Appendix A: Figure 3- Vegetation Map). Site photographs of the survey area are presented in Appendix D.

Grasslands

Wild Oats Grassland

This community is dominated by non-native annual grasses and forbs; trees and shrubs are largely absent or present in low cover. The dominant species found in this community are slender wild oats (*Avena barbata*) and ripgut brome (*Bromus diandrus*). Other species present that had greater cover in other grasslands on site include black mustard (*Brassica nigra*), Italian ryegrass (*Lolium multiflorum*)*, soft chess brome (*Bromus hordeaceus*), Harding grass (*Phalaris aquatica*), and Italian thistle (*Carduus pycnocephalus*). Some native species are present in this community but not at great enough cover to constitute an additional vegetative community. This community occupies a large part of the site east of Nipomo Creek and mostly on the hilltops. This species composition was used in determining the community classification, which most closely corresponds with the *Avena (barbata, fatua)* Semi-Natural Herbaceous Stands, Wild oats grassland, in the MCV classification system (Sawyer, Keeler-Wolf, and Evens 2008).

Perennial Ryegrass Fields

This community represents the other grassland identified within the survey area. The dominant species present is Italian ryegrass. In this community, shrubs and trees are largely absent or present in low cover. The community is mostly composed of non-native grasses and forbs such as common wild oats (*Avena fatua*), Harding grass, bromes (*Bromus spp.*), barleys (*Hordeum spp.*), curly dock (*Rumex crispus*), and Italian thistle. Some native species are present in this community but not at great enough cover to constitute an additional vegetative community. This community occupies a large part of the site east of Nipomo Creek and is found around the Wild Oats Grassland community. This species composition was used in determining the community classification, which most closely corresponds with the *Lolium perenne** Semi-Natural Herbaceous Stands, Perennial ryegrass fields, in the MCV classification system (Sawyer, Keeler-Wolf, and Evens 2008).

*This species is undergoing taxonomic changes, and *Lolium perenne* subspecies *multiflorum* is a nomenclatural synonym for *Lolium multiflorum*, which is currently the accepted name for the species per the *Jepson Interchange for California Floristics*.

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

Bird species that are expected to occur in or frequent this habitat include California towhee (*Pipilo crissaliss*), spotted towhee (*Pipilo maculates*), white-crowned sparrow (*Zonotricha leucophrys*), wrenit (*Chamaea fasciata*), California thrasher (*Toxostoma redivivum*), and western scrub jay (*Aphelocoma californica*).

Coastal Scrub

Coastal Scrub (Yellow Bush Lupine Scrub)

This vegetation community occupies the site west of Nipomo Creek. The shrub layer is developed and intermittent, and the dominant species present are coastal bush lupine (*Lupinus arboreus*), coyote brush (*Baccharis pilularis*), and mock heather (*Ericameria ericoides*). The herbaceous layer is dominated by veldt grass (*Ehrharta calycina*), an invasive grass species common in local coastal areas with sandy soils. One native grass, purple needlegrass (*Stipa pulchra*), is found in relatively high cover, but not enough to constitute an additional vegetation community. A stand of needlegrass occurs in a small patch (approximately 50 by 50 feet) around the rock outcropping on the east side of the property north of Carillo Creek). A fairly developed patch of coastal scrub occurs on the southwestern portion of the property, surrounded by oaks.

Other species found in this community include black mustard, fennel (*Foeniculum vulgare*), and Italian ryegrass. This species composition was used in determining the community classification, which most closely corresponds with the *Lupinus arboreus*-*Ericameria ericoides* Association of the *Lupinus arboreus* Shrubland Alliance and Semi-Natural Shrubland Stands, Yellow bush lupine scrub, in the MCV classification system (Sawyer, Keeler-Wolf, and Evens 2008).

Coastal Scrub (Silver Bush Lupine Scrub)

This community occupies the sandy soils in the northwestern most portion of the survey area. Compared to other communities on site, this community supports a relatively high presence of native plant species. Native shrubs such as silver bush lupine and coyote brush dominate, with a variety of both native and non-native herbaceous species composing the understory. Native species such as telegraph weed (*Heterotheca grandiflora*), California croton (*Croton californicus*), common cryptantha (*Cryptantha clevelandii*), and suncups (*Camissonia spp.*) dominate the intermittent herbaceous understory. Additionally, non-native grasses such as ripgut brome are also locally common. This species composition was used in determining the community classification, which most closely corresponds with the *Lupinus albifrons* coastal Association of the *Lupinus albifrons* Shrubland Alliance, Silver bush lupine scrub, in the MCV classification system (Sawyer, Keeler-Wolf, and Evens 2008).

Riparian

Seasonal Drainage (Arroyo Willow Scrub)

There are two creek corridors on site within the survey area that drain to Nipomo Creek, which runs from the northwest to the south through the site. Both drainage corridors show similar species composition and are identified as the same vegetation community. Both drainages show signs of active restoration in the form of irrigation lines and recently

planted shrubs, trees, and flowers. The dominant species within this community is arroyo willow (*Salix lasiolepis*). Other native shrubs and trees such as blue elderberry (*Sambucus nigra*) and coyote brush are co-dominants in the canopy and shrub layer. The herbaceous understory is composed of a mix of native and non-native species such as mugwort (*Artemisia douglasiana*), yellow monkeyflower (*Mimulus guttatus*), California wild rose (*Rosa californica*), and poison hemlock (*Conium maculatum*).

Riparian Oak Woodland (Coast Live Oak Woodland)

The vegetation of Nipomo Creek above and below the survey area is composed of a mixed tree layer dominated by coast live oak (*Quercus agrifolia*), California box elder (*Acer negundo* var. *californica*), and arroyo willow. The canopy is continuous with an intermittent shrub layer and sparse to absent herbaceous understory. Dominant understory species include poison oak (*Toxicodendron diversilobum*) and creeping snowberry (*Symphoricarpos mollis*). Within the creek, watercress (*Nasturtium officinale*), a native perennial herb, is abundant. Outside of the canopy and along the streambank, Harding grass, a non-native perennial grass is abundant. Oak trees also occur in the southwestern corner of the property, though not in enough density to constitute a separate vegetation community. This species composition was used in determining the community classification, which most closely corresponds with the *Quercus agrifolia*/*Toxicodendron diversilobum* riparian Association of the *Quercus agrifolia* Woodland Alliance, Coast live oak woodland, in the MCV classification system (Sawyer, Keeler-Wolf, and Evens 2008).

This vegetation community is noted due to the potential impacts to the riparian habitat associated with the construction of an emergency access bridge. These impacts are expected to be minimal, and mitigation for these impacts is offered in this report.

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

Wetland

Seasonal Wetland (Creeping Rye Grass Turfs)

Several small areas dominated by native grasses creeping wild rye (*Leymus triticoides*) and salt grass (*Distichlis spicata*) were observed just east of Nipomo Creek. Salt grass is a facultative wetland species and usually occurs in wetlands, and creeping wild rye is commonly found in wetlands; although, it is equally likely to occur in non-wetlands. This

community is easily invaded by non-native species, and both black mustard and Italian thistle were found occasionally within the community and abundant in the surrounding vegetation. This species composition and habitat on site were used in determining the community classification, which most closely corresponds with the *Leymus triticoides* Herbaceous Alliance, Creeping rye grass turfs, in the MCV classification system (Sawyer, Keeler-Wolf, and Evens 2008).

Other

Agricultural/Rangeland

Within the survey area east of Nipomo Creek and a portion west of the creek, there are large areas that appear to have once been cultivated or grazed and are identified as agricultural/rangeland. Non-native species are dominant, and natives are nearly absent or occur in low cover. The dominant species in these areas are tocalote (*Centaurea melitensis*), Italian thistle, and fennel. Other species occur at low frequency and cover, and include black mustard, milk thistle (*Silybum marianum*), and Italian ryegrass. This species composition was used in determining the community classification, which most closely corresponds with the *Centaurea melitensis-Brassica nigra* Stand Type of the *Centaurea (solstitialis, melitensis)* Herbaceous Stands, Yellow star-thistle fields, in the MCV classification system (Sawyer, Keeler-Wolf, and Evens 2008).

Sensitive Species

For the purposes of this BRA, a sensitive species is defined as a species that is of management concern to state and/or federal resource agencies and includes those species that are:

- Listed as endangered, threatened, or candidate for listing under the Federal Endangered Species Act (FESA);
- listed as rare, endangered, threatened, or proposed for listing under the California Endangered Species Act (CESA);
- designated as endangered or rare, pursuant to the California Fish and Game Code (Section 1901, Chapter 10 – Native Plant Protection Act);
- designated as fully protected, pursuant to the California Fish and Game Code (Section 3511, Section 4700, or Section 5050);
- designated as a species of special concern by CDFG; and
- plants that meet the definitions of rare, threatened, or endangered under the California Environmental Quality Act (CEQA), including plants listed by CNPS to be “rare, threatened, or endangered in California” (CNPS Lists 1A, 1B, and 2). Local or regional agencies (e.g., County, City) may consider plant species that CNPS believes require additional information (i.e., CNPS List 3) and plant species that have been placed on a watch list (i.e., CNPS List 4) by CNPS.

All occurrences of special-status species and sensitive habitat types previously documented from the CNDDDB within a five-mile radius of the project site were plotted on a map using geographic information systems (GIS) software (Appendix A: Figure 4 - CNDDDB Five-mile Radius Map). As previously discussed in the Methodology Section,

an analysis was conducted to determine which of these special-status species has potential to occur within the survey area (Appendix B: Potential Sensitive Species List).

Terra Verde staff determined that the proposed project may affect and/or that the survey area contains suitable habitat for 21 sensitive plants and 16 sensitive wildlife species. More detailed descriptions of the sensitive species with potential to occur within the survey area are also provided below.

The survey area has suitable habitat for the federally protected species, steelhead (*Oncorhynchus mykiss irideus*). Historic records note steelhead as occurring in Nipomo Creek. However, a significant barrier exists for upstream anadromous fish migration to Nipomo Creek from the Santa Maria River confluence. An additional barrier, an approximate drop of 15 feet at an Arizona crossing, exists in the vicinity of the Santa Maria Raceway (Bob Hill, Land Conservancy 2011). Steelhead are not discussed further in this document due to the significant barriers noted downstream.

Sensitive Plant Species Descriptions

Terra Verde staff planned the field surveys so that they would correspond with the bloom periods of those sensitive plant species determined to have potential to occur within the survey area. All manzanitas are evergreen and as such can be identified outside of the typical blooming window. No sensitive plant species were observed on site during the field surveys, thus, none are discussed further in this document.

A comprehensive list of all the plant species observed within the survey area during the field surveys is included in Appendix C.

Sensitive Mammal Species Descriptions

American Badger (*Taxidea taxus*), State Species of Special Concern

American badger is a non-migratory species that occurs throughout most of California. It occurs in more open and arid habitats including grasslands, meadows, savannahs, open-canopy desert scrub, and open chaparrals. It requires friable soils in areas with low to moderate slopes. American badger is known to occur in nearly every region of California except for the North Coast region which includes Del Norte, Humboldt, Mendocino, Sonoma, and Marin counties. This species occurs at elevations that range from approximately zero to 3,600 m above msl. American badger typically breeds from May through September, but it may not breed every year. This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

The grasslands within and surrounding the survey area are considered suitable habitat for American badger, although suitable burrows for this species were not observed. This species was not observed within the survey area during the field surveys.

Pallid Bat (*Antrozous pallidus*), State Species of Special Concern

Pallid bat is typically found in arid desert habitats and utilizes protective landscape features for roosting such as rock crevices, caves, tree hollows, mines, old buildings, and bridges. They also occur in oak and pine forested areas and open farmland. This species

uses semi-dark day-roosts which provide some protective cover. Pallid bats prefer darkness, shelter from wind and rain, and an easy escape if they are disturbed. Although not a requirement, roosts are generally found near a source of water. Breeding begins in October and continues sporadically throughout the winter. The range of this species is from British Columbia to Mexico, along the Pacific coast and as far east as Texas. This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

The open agricultural lands and the riparian corridor are considered suitable foraging lands for this species. This species was not observed within the survey area during the field surveys.

Sensitive Amphibian Species Descriptions

California Red-legged Frog (*Rana draytonii*), Federal Threatened, State Species of Special Concern

California red-legged frogs require permanent or semi-permanent bodies of water such as lakes, streams, or ponds with plant cover for foraging and breeding habitat. These frogs also use lowland and grassland areas to hunt and forage for food. Frogs have been documented more than a mile away from waterbodies. Reproduction occurs in aquatic habitats and occurs from late November to early April. Egg masses are laid in the water, often under the protection of emergent vegetation. This species is known to occur from Mendocino County to Northern Baja California and eastward through the Northern Sacramento Valley and Sierra Nevada foothills. It is known to occur from 0 to 1,525 m above msl.

California red-legged frog is known to occur near the project site. This species has been documented within a five-mile radius of the project site (CDFG 2011).

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

California Tiger Salamander (*Ambystoma californiense*), Federal and State Threatened, State Species of Special Concern

Grasslands with shallow, temporary pools provide suitable habitat for California tiger salamander. They spend most of their time in underground burrows but require ponds or vernal pools for breeding from late winter to the end of March. This species also utilizes upland habitats including grasslands, oak savanna, and edges of mixed woodland and lower elevation coniferous forest. California tiger salamander is endemic to California, commonly found in vernal pools and grasslands of the central valley and marsh habitats along the coast from San Francisco to San Luis Obispo County. This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

Because there is no suitable breeding habitat within or adjacent to the project area, this species is not expected to occur. This species was not observed within the survey area during the field surveys.

Coast Range Newt (*Taricha torosa torosa*), State Species of Special Concern

Coast range newts are typically found in slow moving streams, ponds, and lakes with surrounding evergreen and oak forests, chaparral, and rolling grasslands along the coast. In southern California, drier chaparral, oak woodland, and grasslands are also used as habitat. Adults migrate from terrestrial habitats to ponds, reservoirs, and sluggish pools in streams to breed, typically between December and February, depending on rainfall amounts. This species is endemic to California, found along the coast and Coast Range Mountains from Mendocino County south to San Diego County. This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

The riparian corridor and adjacent grasslands are considered suitable habitat for this species. This species was not observed within the survey area during the field surveys.

Western Spadefoot Toad (*Spea hammondi*), State Species of Special Concern

Western spadefoot toads generally require grassland, open chaparral, or valley foothill woodland habitats for feeding and aestivation. It also requires aquatic habitats including permanent or temporary wetlands, rivers, creeks, pools in intermittent streams, or stock ponds for breeding. Western spadefoot toad is a predominantly terrestrial species and enters water for reproduction. It breeds from January through March, but the breeding season can extend through May in wetter years. Further research is required to determine the dispersal distance western spadefoot toads travel from aquatic habitats to upland refugia. Some studies suggest that the dispersal distance can be as great as 368 m. This species occurs throughout the Central Valley from Shasta County south through western Kern County. In the Coast Ranges it occurs from Point Conception in Santa Barbara County south to the Mexican border. Western spadefoot toad also occurs along inland Monterey and northern San Benito counties south through inland San Luis Obispo County. It is known to occur at elevations that range from approximately 0 to 1,363 m above msl. This species has been documented within a five-mile radius of the project site (CDFG 2011).

No western spadefoot toads were observed and likely do not occur in the project area due to the lack of suitable aquatic breeding habitat in or near the survey area.

Sensitive Reptile Species Descriptions

Southern Pacific Pond Turtle (*Actinemys marmorata pallida*), State Species of Special Concern

Southern Pacific pond turtle, formerly known as the western pond turtle, occupies a wide range of habitats including wetlands, rivers, streams, lakes, and stock ponds for feeding and basking sites. These turtles also require upland areas for aestivation, wintering, and nesting sites. Nesting typically occurs along the edges of lakes or ponds but may also occur up to 500 meters from water. This species starts nesting in April with a peak in

May through July and typically concludes in August. Turtles have been documented as traveling up to 60 meters into upland areas for aestivation sites. This species occurs from western Washington to northern Baja California. Coastal populations exist in San Luis Obispo and Los Angeles Counties. It is known to occur at elevations that range from approximately 0 to 2,084 m above msl. This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

The project area lacks deep pools and basking sites required by turtles. However, the riparian corridor and the adjacent upland areas are considered marginally suitable habitat for this species. No pond turtles were observed during the surveys.

Silvery Legless Lizard (*Anniella pulchra pulchra*), State Species of Special Concern
Silvery legless lizard requires sandy or loose loamy soils within coastal dune scrub, coastal sage scrub, chaparral, woodland, riparian, or forest habitats. It requires cover such as debris, logs, leaf litter, or rocks and will cover itself with loose soil. Relatively little is known about the specific behavior and ecology of this species. Silvery legless lizard is thought to be a diurnal species that breeds between the months of March through July. It gives live birth to young in the early fall. This species occurs from Antioch in Contra Costa County south through the Coast, Transverse, and Peninsular Ranges, along the western edge of the Sierra Nevada, and in parts of the San Joaquin Valley and Mojave Desert to El Consuelo in Baja. Silvery legless lizard is known to occur at elevations that range from approximately 0 to 1,800 m above msl. This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

The coastal scrub community on the western side of the survey area is suitable habitat for this species. Silvery legless lizard was not observed within the survey area during the field surveys.

Coast Horned Lizard (*Phrynosoma blainvillii*), State Species of Special Concern
Coast horned lizards inhabit open areas of sandy soil and low vegetation in valleys, foothills, and semiarid mountains from sea level to 82,438 m in elevation. They are typically found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Additionally, they are often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and are frequently found near ant hills.

Historically, this species has been found along the Pacific coast from the Baja California border west of the deserts and the Sierra Nevada, north to the Bay Area, and inland as far north as Shasta Reservoir, and south into Baja California. This species ranges up onto the Kern Plateau east of the crest of the Sierra Nevada, although the current range is more fragmented (californiaherps.com). This species has been documented within a five-mile radius of the project site (CDFG 2011).

The sandy soils and shrubs on the western side of the survey area are suitable habitat for this species. This species was not observed within the survey area during the field surveys.

Two-striped Gartersnake (*Thamnophis hammondi*), State Species of Special Concern
Highly aquatic, two-striped garter snakes forage primarily in and along streams hunting fishes, especially trout and sculpins and their eggs, and amphibians and amphibian larvae. Small mammals and invertebrates such as leeches and earthworms are also taken (Fitch 1941, Nussbaum et al. 1983, Rathburn et al. 1993). The preferred nocturnal retreats of this active diurnal snake are thought to be holes, especially mammal burrows, crevices, and surface objects (Rathburn et al. 1993). During the day this gartersnake often basks on streamside rocks or on densely vegetated stream banks. When disturbed it usually retreats rapidly to water. In milder areas, mammal burrows and surface objects such as rocks and rotting logs serve as winter refuges. Courtship and mating normally occur soon after spring emergence. Young are born alive in the late summer, usually in secluded sites such as under the loose bark of rotting logs or in dense vegetation near pond or stream margins (Cunningham 1959, Rossman et al. 1996).

Two-striped gartersnake is distributed from the southeastern slope of the Diablo Range and the Salinas Valley south along the South Coast and Transverse ranges to the Mexican border, and on Santa Catalina Island (Jennings and Hayes 1994). Historically common, it is associated with permanent or semi-permanent bodies of water in a variety of habitats from sea level to 2,400 m. It is now gone from about 40 percent of its historical range (Jennings and Hayes 1994). Much of this species' life history has been gleaned from study of other gartersnakes. This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

Nipomo Creek and the riparian corridor is suitable habitat for this species. This species was not observed within the survey area during the field surveys.

Sensitive Bird Species Descriptions

Sharp-shinned Hawk (*Accipiter striatus*), Federal Threatened, State Species of Special Concern

Sharp-shinned hawk inhabits a variety of natural and urban habitat communities, including aspen, pine, and fir forests and urban, rural, and agricultural areas. This species typically nests in conifer trees, 20 to 60 feet above the ground where there is sufficient overhead shading. Peak nesting season for this species is from March to June, but often extends through the summer. Breeding range for this species typically occurs in colder areas, including high elevation forests in the Rocky Mountains, large areas of Canada, Alaska, and most of the northeastern United States. Breeding grounds also extend into portions of northern California, Nevada, and Washington. Much of the Canadian territory for sharp-shinned hawk is utilized only during the breeding season. This species has been documented within a five-mile radius of the project site (CDFG 2011).

The agricultural fields and upland habitat occurring on and near the project site are considered potential foraging habitat for this species. This species was not observed during the field surveys.

Burrowing Owl (*Athene cunicularia*), State Species of Special Concern

Burrowing owls are yearlong residents of open, dry grasslands and desert habitats, and in grass, forb, and open shrub stages of pinyon-juniper woodland and ponderosa pine forest habitats. These owls were formerly common in appropriate habitats throughout the state. Burrowing owls eat mostly insects, but will also eat small mammals, reptiles, birds, and carrion. They use rodent or other burrows for roosting and nesting cover, moving between perches and burrows to thermoregulate as temperatures change throughout the day. Nesting occurs in old burrows of small mammals but they may dig their own burrows in soft soils. These owls may also use pipes, culverts, or nest boxes when burrows are sparse. Breeding occurs from March through August, with a peak in April and May (Zeiner, et al). This species is typically a winter resident in the western portion of San Luis Obispo County, with breeding occurring in the eastern portion of the County. This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

The agricultural fields on and near the project site are considered suitable habitat for this species. However, no suitable burrows were observed, and the vegetation of the grasslands is taller than that typically used by these owls. This species was not observed during the field surveys.

White-tailed Kite (*Elanus leucurus*), State Fully Protected Species

White-tailed kites require coastal and valley lowlands along with herbaceous open space habitats. Suitable habitat for this species consists of three components; nesting, foraging, and roosting. Kites will nest in various types of trees including dense oaks, willows, or other tree stands. Nests are placed atop trees at least 6 to 20 meters above the ground and are made from sticks, twigs, or other ground litter. This species forages for small mammals during long-distance flights over a wide variety of terrain including grasslands, meadows, and farmlands. Kites hover above the ground at 30 meters then descend onto prey with wings held high. Kites spend the majority of time perched in roosting and nesting sites that are adjacent or close to foraging habitats. This species' current range in California consists of what is often referred to as cismontane California. This range includes lands west of the Cascade-Sierra Nevada-Peninsular crest ranges. Kite nesting season is typically from February to October with a peak from May to August. This species has not previously been documented within a five mile radius of the project site (CDFG 2011). However, a white-tailed kite was observed foraging on the east side of the property on several occasions.

The open grassland and agricultural fields provide foraging habitat for this species. As noted above, it appears white-tailed kites use the eastern grasslands of the property for foraging purposes as they were observed frequently hovering over this area.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*), Federally Endangered, State Endangered

Southwestern willow flycatcher requires dense riparian habitats with microclimatic conditions dictated by the local surroundings. Saturated soils, standing water, or nearby streams, pools, or cienegas are a component of nesting habitat that also influences the

microclimate and density of the vegetation component. Habitat not suitable for nesting may be used for migration and foraging. This species eats primarily flying insects.

The flycatcher is a summer breeder within its range in the United States. It migrates to wintering areas in Central America by the end of September. Nest territories are set up for breeding, and there is some site fidelity to nest territories. Southwestern willow flycatchers arrive on breeding grounds in late April to early May. Nesting begins in late May and early June, with fledging from late June to mid-August.

Loss and degradation of dense riparian habitats are the primary habitat threat to the flycatcher. Historically, water developments that altered flows in the rivers and streams were the primary threat. Now, with riparian areas limited and re-growth difficult due to changes in flows, fire is a significant risk to remaining habitats. Human disturbances at nesting sites may result in nest abandonment (U.S. Fish and Wildlife Service 2011). This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

The willow riparian corridor is suitable habitat for southwestern willow flycatcher. This species was not observed or heard during the field surveys.

Prairie Falcon (*Falco mexicanus*), State Species of Special Concern

Prairie falcons utilize a variety of habitats, including dry grasslands, woodlands, savannahs, cultivated fields, lake shores, and rangelands. These birds are aerial foragers, often feeding in canyons on rodents and smaller birds. Nesting sites are typically on south-facing, overhanging cliffs and rock outcrops, up to 500 feet high. This species has a nesting period that lasts between one and two months, typically between February and April, but sometimes extending into the summer. Prairie falcons have a geographic range that extends from southern Canada, down through Mexico and from the Pacific coast to the Rocky Mountains. It is known to occur at elevations that range from approximately 0 to 3,048 m above msl. This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

The agricultural fields and upland habitat occurring on and near the project site are considered potential foraging habitat for this species. No prairie falcons were observed during the surveys.

Least Bell's Vireo (*Vireo bellii pusillus*), Federally Endangered, State Endangered

Least Bell's vireos primarily occupy riparian habitats along open water or dry parts of intermittent streams, generally below 460 m in elevation (USFWS 1986; Small 1994, as cited in Dudek and Associates 2005, Kus 2002). They are generally associated with the following vegetation types: southern willow scrub, cottonwood forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, wild blackberry scrub, and mesquite scrub in desert localities (Kus 2002).

Kus (2002) indicates that the vireo typically forages in riparian and adjoining upland habitat. The historical distribution of least Bell's vireo ranged from central northern

California through the Sacramento and San Joaquin valleys and Sierra Nevada foothills, and from the southern Coast Ranges (including the Santa Clara River watershed) to Baja California, Mexico (Kus 2002, USFWS 1998). Historical populations were also documented in Owens Valley, Death Valley, and scattered locations in the Mojave Desert (USFWS 1998, Kus 2002).

Today, the breeding range of least Bell's vireo is limited primarily from Santa Barbara County south to San Diego County (where the majority of remaining populations occur) (Franzreb 1989, as cited in Labinger and Greaves 2001a, Kus 2002). Breeding pairs have also been sighted near Gilroy (Santa Clara County) (Roberson et al. 1997, as cited in Kus 2002) and along the Santa Clara River (Ventura County) (Labinger and Greaves 2001a), Mojave River (San Bernardino County) (Kus and Beack 1998, as cited in Kus 2002), and San Joaquin River (San Joaquin County) (River Partners 2005, Stillwater Sciences).

Critical habitat for the species has been designated in Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, and San Diego counties (USFWS 1992). Critical habitat patches occur on the Santa Ynez, Santa Clara, Santa Margarita, San Luis Rey, Sweetwater, San Diego, and Tijuana rivers (USFWS 1992). This species has not been previously documented within a five-mile radius of the project site (CDFG 2011).

The willow riparian corridor is suitable habitat for least Bell's vireo. This species was not observed or heard during field surveys.

IMPACT ASSESSMENT AND MITIGATION

Sufficiency of Biological Data

The field surveys that Terra Verde staff conducted are of sufficient technical detail and biological and botanical expertise. The survey effort occurred during the appropriate bloom periods for the target sensitive plant species and the survey effort is both adequate and satisfactory for the purpose of determining the presence/absence of potentially occurring sensitive plant species within the survey area. The County received above average rainfall during the past two wet seasons (i.e., approximately October 2009 to May 2010 and October 2010 to June 2011) and it is assumed that many plant populations within the County experienced above average growth and reproductive success because of the abundant rainfall. Therefore, all results presented within this BRA report are considered valid and accurate as they pertain to the proposed project.

Summary of Potential Impacts

The proposed project will indirectly impact the riparian woodland along Nipomo Creek and directly impact portions of the surrounding grasslands and agriculture fields. No potentially occurring sensitive plant species were observed within the project area during field surveys. Although considered unlikely, the proposed project has the potential to impact 16 sensitive wildlife species and migratory nesting birds, should they be present during construction. Direct impacts to these species could result from take (e.g., injury,

death) via construction-related disturbances such as trampling or crushing from equipment or construction workers. Indirect impacts to the wildlife species could result from noise, harassment, or other disruption during construction activities or through modifications to the species' habitat.

The project has been specifically designed to avoid and minimize impacts to the creek systems on the property, including free span bridges.

Short-term, Long-term, and Cumulative Impacts

Terra Verde staff evaluated impacts to determine if the project may result in short-term, long-term, cumulative, and otherwise significant environmental impacts. The Applicant intends to use the development and facilities for environmental and cultural education programs. As such, they have a strong interest in maintaining the integrity and viability of all cultural, historical, and environmental resources existing on the project site. Further, this summary of short-term, long-term, and cumulative impacts will help inform CEQA review for the proposed project.

Short-term Impacts

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

Long-term Impacts

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

Cumulative Impacts

Construction-related disturbance to vegetation and wildlife on the project site will cause a shift in the overall structure of suitable habitat present. This otherwise temporary impact

will be sustained by the significant alteration to the land use within the survey area. Thus, the short-term and long-term impacts associated with this project will cumulatively result in a significant change to the habitat structure, vegetation communities, and wildlife present on site. At this time, no other projects are known that would add to cumulative impacts as a result of this project.

Beneficial Impacts

The Applicant proposes several design features and components of the project, which aim to preserve the cultural, historical, and environmental resources present on site to the extent feasible, including: on-site storm water management, use of recycled materials, native and drought-tolerant landscaping, and on-site wastewater treatment. Additionally, a significant component of the proposed project is the riparian restoration effort being implemented in conjunction with the County and LCSLO. It is also anticipated that the actions proposed to fix the headcut on Carillo Creek will improve the adjacent habitat communities and reduce erosion and sedimentation into Nipomo Creek. Finally, the landscape-scale restoration that is planned by the Applicant, the County, and LCSLO will have a significant benefit to native plants and wildlife.

Recommended Mitigation Measures

Impact 1: Sensitive Amphibians and Reptiles

The proposed project could result in direct impacts to California red-legged frogs, coast range newts, western spadefoot toads, southern Pacific pond turtles, coast horned lizards, two-striped garter snakes, and silvery legless lizards if present during clearing and grading activities. Likewise, elevated noise levels, increased traffic and human activity, and construction-related disturbance (e.g., erosion and sedimentation into the riparian corridor) associated with implementation of the proposed project could result in indirect impacts to these species if they are present during construction.

Recommended Mitigation Measures

1. Prior to construction, a qualified biologist shall conduct pre-construction surveys for sensitive amphibian and reptile species within all portions of the project site containing suitable habitat. The surveys shall include at least two nighttime surveys and one daytime survey immediately preceding construction. If any sensitive species are detected, the following actions shall occur:
 - A. Any detected adults will be relocated to a nearby suitable aquatic habitat. The location shall be in suitable habitat not subject to disturbance or known threats to the species. Terrestrial habitat surrounding the proposed relocation site shall be as similar in type, aspect, and density to the location of the existing riparian corridor. Sensitive species, such as California red-legged frog, will only be moved if prior approval has been granted by the U.S. Fish and Wildlife Service (see D below).
 - B. A qualified biological monitor will be present during any clearing, grading, or creek activities. Additionally, a qualified biological

- monitor will be on site during construction activities to ensure no sensitive species have entered the work area overnight or throughout the day (i.e., they will conduct a morning clearance survey and regular daily checks of the work areas).
- C. The work areas will be clearly marked to ensure that no work occurs outside of the approved limits of disturbance (i.e., lathe and flagging, t-posts and yellow ropes, and temporary signage).
 - D. The qualified biologist will receive project-specific approvals from resource agencies prior to handling any wildlife species, especially any sensitive species.
 - E. Speed limits shall be restricted to 15 miles per hour.
 - F. Work will occur only during daylight hours.
2. Construction should be limited to the typical dry season (April 15 to October 15) in order to avoid impacts (e.g., erosion and sedimentation) to the creek and water quality. If work must occur during the rainy season, the Applicant shall install adequate erosion and sedimentation controls to prevent any sediment-laden runoff from entering Nipomo Creek. Upon completion of construction, disturbed areas will be stabilized or vegetated as detailed in the project's re-vegetation plan.

Implementation of the recommended mitigation measures would reduce potential impacts to sensitive amphibian and reptile species.

Impact 2: Sensitive Mammals

The proposed project could result in direct impacts to American badger and pallid bat if present during construction activities. Likewise, elevated noise levels, increased traffic and human activity, and construction-related disturbance associated with implementation of the proposed project could result in indirect impacts to this species.

Recommended Mitigation Measure

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

Impact 3: Sensitive and Nesting Birds

The proposed project has the potential to impact sensitive birds and migratory nesting birds if construction activities occur during the nesting season (approximately February 1 through August 15). Activities associated with the proposed project (e.g., ground disturbance and vegetation removal) could impact nesting birds if their nests are located

within or near the work area. Likewise, increased human activity and traffic, elevated noise levels, and operation of machinery could also impact nesting birds if nests are located within the vicinity of the project area.

Recommended Mitigation Measures

1. All work shall be avoided during the nesting bird season. If any construction activities are scheduled to occur during the nesting season, pre-construction bird surveys shall be conducted by a qualified biologist. The pre-construction bird surveys shall be conducted within all areas of potentially suitable nesting bird habitat that are within 250 feet of any proposed construction activity. The surveys shall be conducted no more than one week prior to the scheduled onset of construction activities.
2. If nesting bird species are observed within 250 feet of the construction area during the surveys, the biologist shall determine the appropriate exclusion zone for the specific species. A buffer of 250 feet shall be maintained around any nesting raptors. The nesting bird exclusion zones shall be completely avoided until the qualified biologist determines that the young have successfully fledged. A qualified biologist shall conduct periodic site inspections to ensure that the exclusion zone is maintained and to monitor the nesting progression. In the event that sensitive bird species are discovered, the U.S. Fish and Wildlife Service and/or the California Department of Fish and Game will be contacted to determine the appropriate protective measures prior to any construction beginning.
3. If construction activities must occur within 250 feet of a nesting raptor nest, a qualified biologist shall be consulted to determine if the buffer can be reduced. If, in the opinion of the qualified biologist, the buffer cannot be safely reduced, a full-time avian monitor shall be present during all construction activities occurring within the established buffer to ensure no impacts occur. The avian monitor will have the authority to halt or re-direct work if raptors show signs of disturbance.

Implementation of the recommended mitigation measures would reduce potential impacts to sensitive and/or migratory nesting bird species.

Impact 4: Riparian/Nipomo Creek

The proposed project will result in disturbance to a small portion of Nipomo Creek, where the bridge will be constructed along the emergency access drive. This proposed activity will include vegetation trimming and may result in sedimentation and run-off into Nipomo Creek. The western bank of Nipomo Creek at this location may be impacted by installation of rip rap or other dissipation measures. This dissipation may be needed in order to avoid erosion to the western bank where Carillo Creek enters Nipomo Creek.

Recommended Mitigation Measures

1. Disturbance should be minimized to what is necessary to safely install the emergency access bridge. Appropriate exclusion and erosion control measures shall be installed and maintained during construction activities to minimize sedimentation into the creek and impacts to sensitive habitat. Appropriate permanent sedimentation and erosion control structures shall be included in the bridge design in order to minimize long-term impacts associated with vehicular traffic near the creek (e.g., sedimentation and erosion into the creek due to increased runoff associated with soil compaction and/or installation of impermeable surfaces). The Applicant shall restore and re-vegetate any disturbed areas along the access bridge in order to stabilize the streambank.
2. If work within the channel is identified as being necessary, the Applicant will coordinate with the appropriate regulatory agencies in order to obtain permits prior to the start of construction. These agencies are likely to include: U.S. Army Corps of Engineers, California Department of Fish and Game, Regional Water Quality Control Board, and the U.S. Fish and Wildlife Service.

CONCLUSION

One sensitive species, white-tailed kite, was documented as occurring on or near the proposed project site. There is the potential for 15 additional sensitive wildlife species and/or nesting birds to occur during construction.

Implementation of the recommended mitigation measures will avoid or minimize impacts to potentially occurring sensitive species.

REFERENCES

- California Department of Fish and Game (CDFG), 2011. California Natural Diversity Database: RareFind 3, Version 3.1.1. Available Online at: <http://www.dfg.ca.gov/biogeodata/cnddb/rarefind.asp>. May 2011 Data.
- Californiaherps.com, May 2011. Online herpetological web site.
- California Native Plant Society (CNPS), 2011. Online Inventory of Rare and Endangered Plants. Sacramento, California. Available Online at: <http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi>. Accessed May 2011.
- Cowardin, L.M., et. al., 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. United States Fish and Wildlife Service (USFWS). Jamestown, North Dakota.
- Cunningham, J. D. 1959. Reproduction and food source of some California snakes. *Herpetologica* 15: 17-19.
- Fitch, H.S. 1941. The feeding habits of California garter snakes. *California Department of Fish and Game* 27: 1-32.
- Hickman, James C., (ed.), 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley, California.
- Hill, Bob 2011. Personal communication regarding Nipomo Creek Watershed Plan and steelhead. June 2011.
- Holland, V.L. and Keil, David J., 1995. *California Vegetation*. Kendall/Hunt Publishing Company. Dubuque, Iowa.
- Jameson, E.W., Jr. and Peeters, H.J., 2004. *Mammals of California, Revised Edition*. University of California Press, Berkeley, California.
- Jennings, M. R., and M. P. Hayes. 1994. Amphibian and reptiles species of special concern in California. California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California.
- Kus, B. 2002. Least Bell's vireo (*Vireo bellii pusillus*). In California Partners in Flight. The riparian bird conservation plan: a strategy for reversing the decline of riparian-associated birds in California. Available at: http://www.prbo.org/calpif/htmldocs/riparian_v-2.html.
- Labinger, Z. and Greaves, J. 2001a. Summary report of avian studies (1994-1999) following the ARCO/Four Corners January 17, 1994 oil spill on the Santa Clara

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- River, California. Report prepared for U.S. Fish and Wildlife Service, Ventura, California.
- Natural Resources Conservation Service (NRCS)/United States Department of Agriculture (USDA), 2011. Available Online at:
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
Accessed May 2011.
- Nussbaum, R. A., *et. al.*, 1983. *Amphibians and reptiles of the Pacific Northwest*. University of Idaho Press. Moscow, Idaho.
- Rathburn, G.B., *et. al.* 1993. *Status and ecology of sensitive aquatic vertebrates in lower San Simeon and Pico Creeks, San Luis Obispo County, California*. Unpublished report, National ecology and Research Center, Piedras Blancas Research Station, San Simeon, California, under Cooperative Agreement (14-16-0009-91-1909).
- River Partners. 2005. Least Bell's vireo returns to the Central Valley. River Partners Journal 1(1): 1-3, River Partners. Chico California.
- Rosatti, Tom. 1995 – 2009. Jepson Flora Project, Jepson Online Interchange. University and Jepson Herbaria of the University of California at Berkeley and Regents of the University of California. Available at: ucjeps.berkeley.edu/interchange.html
Accessed: May 2011.
- Rossmann, D. A., *et. al.* 1996. *The Garter Snakes: Evolution and Ecology*. Norman, OK. University of Oklahoma Press.
- Sawyer, John O., Keeler-Wolf, Todd., and Evens, Julie., 2008. *A Manual of California Vegetation*. Second Edition. California Native Plant Society. Sacramento, California.
- Sibley, D.A., 2003. *The Sibley Field Guide to Birds of Western North America*. Alfred A. Knopf, Inc. New York, New York.
- Small, A. 1994. *California Birds: Their Status and Distribution*. Ibis Publication. Vista, California.
- Stebbins, R.C., 2003. *Western Reptiles and Amphibians, Third Edition*. Houghton Mifflin. Boston, Massachusetts.
- United States Department of Agriculture, Natural Resource Conservation Service. 2011. Wetland indicator status. Online Version Available at:
<http://www.plants.usda.gov/wetland.html>
- United States Department of the Interior, Geological Survey (USGS), 1978. Hydrologic Unit Map, State of California. Geologic Survey. Reston, Virginia. Online Version

Dana Adobe Stories of the Rancho Project
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Available at: <http://cfpub.epa.gov/surf/locate/index.cfm>. Site maintained by United States Environmental Protection Agency (USEPA).

United States Department of the Interior, Geological Survey (USGS). Arroyo Grande NE, California 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

United States Fish and Wildlife Service (USFWS), 1977. Final Correction and Augmentation of Critical Habitat Reorganization. Federal Register, Vol. 42, No. 184. Available Online at: <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B002#criticalHabitat>. Accessed July, 2011.

United States Fish and Wildlife Service (USFWS), 1986. Determination of Endangered Status for the least Bell's vireo. (51 FR 16474).

United States Fish and Wildlife Service (USFWS), 1992. 50 CFR Part 17. Endangered and threatened wildlife and plants: designation of critical habitat for the least Bell's vireo (*Vireo bellii pusillus*). Final Rule.

United States Fish and Wildlife Service (USFWS), 1996. Recovery Plan for the California Condor, Third Revision. Available Online at: http://ecos.fws.gov/docs/recovery_plan/960425.pdf. Accessed May, 2011.

United States Fish and Wildlife Service (USFWS), 2011. Ventura Fish and Wildlife Office: Endangered Species Program. Species Lists Online, San Luis Obispo County. Available Online at: http://www.fws.gov/ventura/speciesinfo/splists/sl_sanluisobispo_co.cfm. Accessed May, 2011.

Western Regional Climate Center (WRCC), 2011. Regional Station Climate Data. Available Online at: <http://www.wrcc.dri.edu/>. Accessed July, 2011.

Zeiner, Laudenslayer, Mayer, and White 1990. California's Wildlife, Volumes I-III. California Department of Fish and Game. Accessed online June 2011.

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APPENDIX A: MAPS

Dana Adobe Nipomo Amigos Stories of the Rancho APN 090-171-011,-030,-031,-032,-036

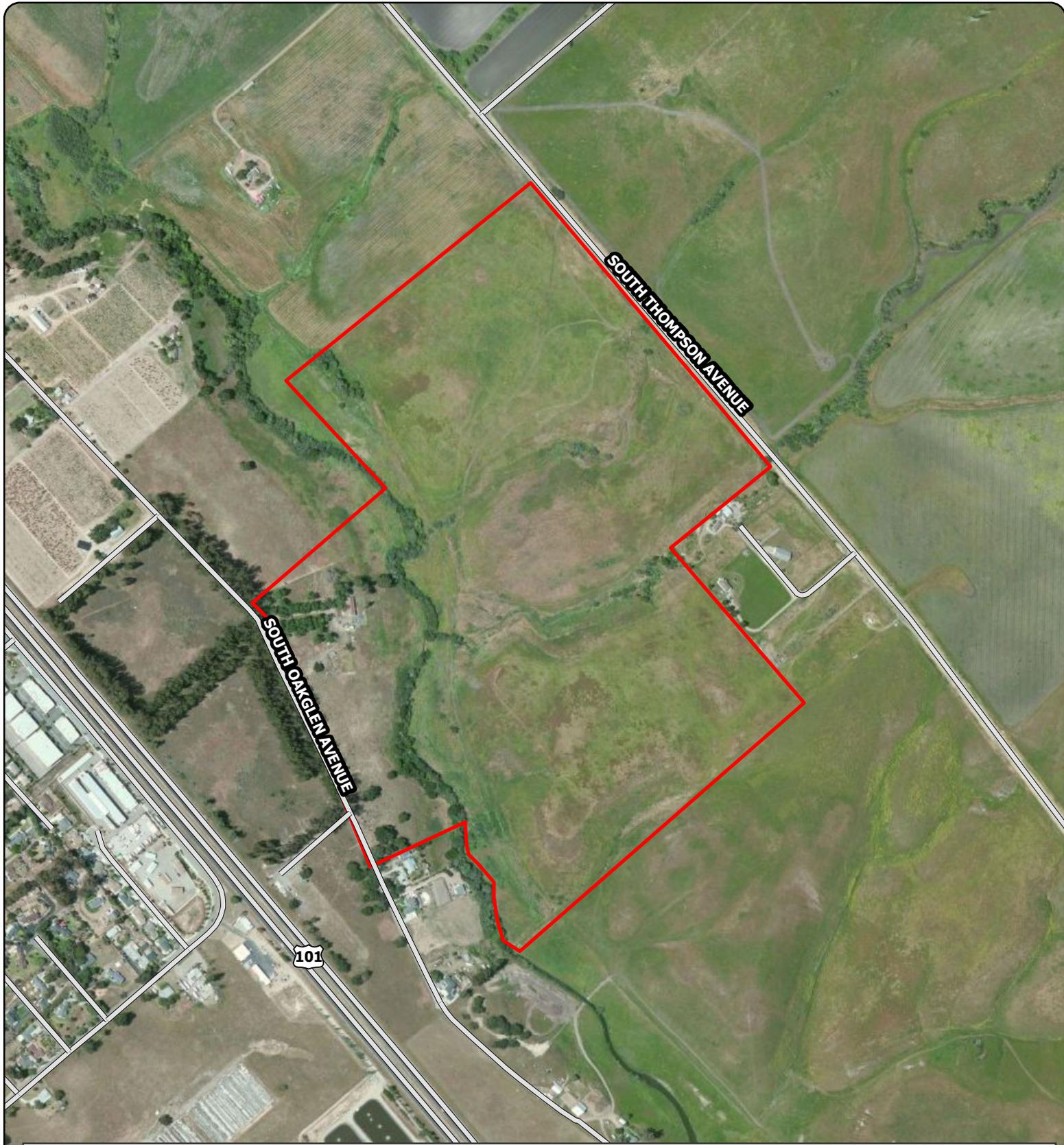


Figure 1: Location map



Dana Adobe Nipomo Amigos Stories of the Rancho APN 090-171-011,-030,-031,-032,-036

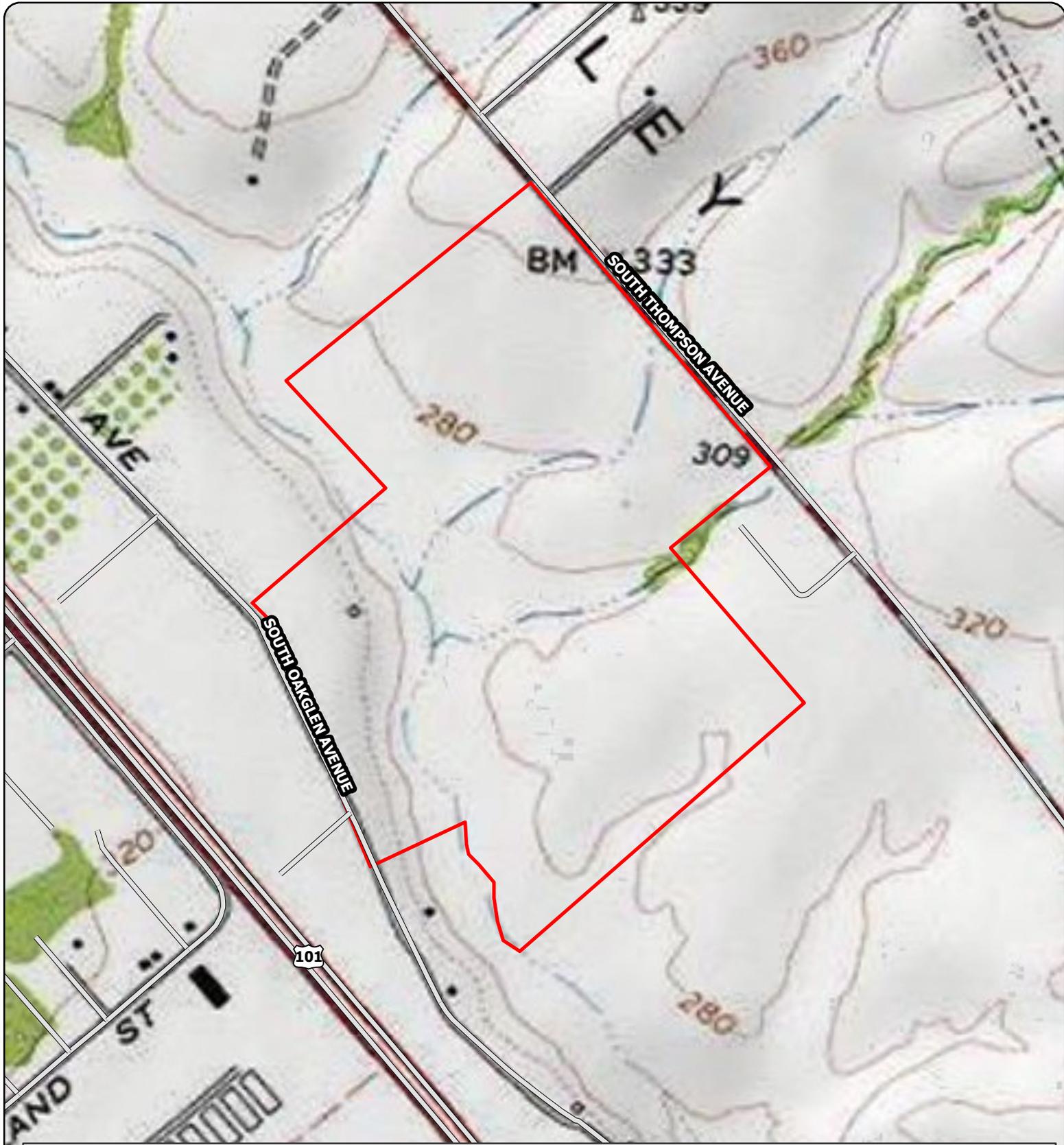


Figure 2: Topographic map



Dana Adobe Nipomo Amigos Stories of the Rancho

APN 090-171-011 -030,-031,-032,-036



0 250 500 1,000 1,500 2,000 Feet

- | | |
|-----------------------|---------------------------|
| Eucalyptus | Yellow bush lupine scrub |
| Coastal scrub | Willow scrub |
| Ruderal | Perennial rye grass field |
| Riparian oak woodland | Seasonal wetland |
| Anthropogenic | Rock outcrop |
| Wild oat grassland | |

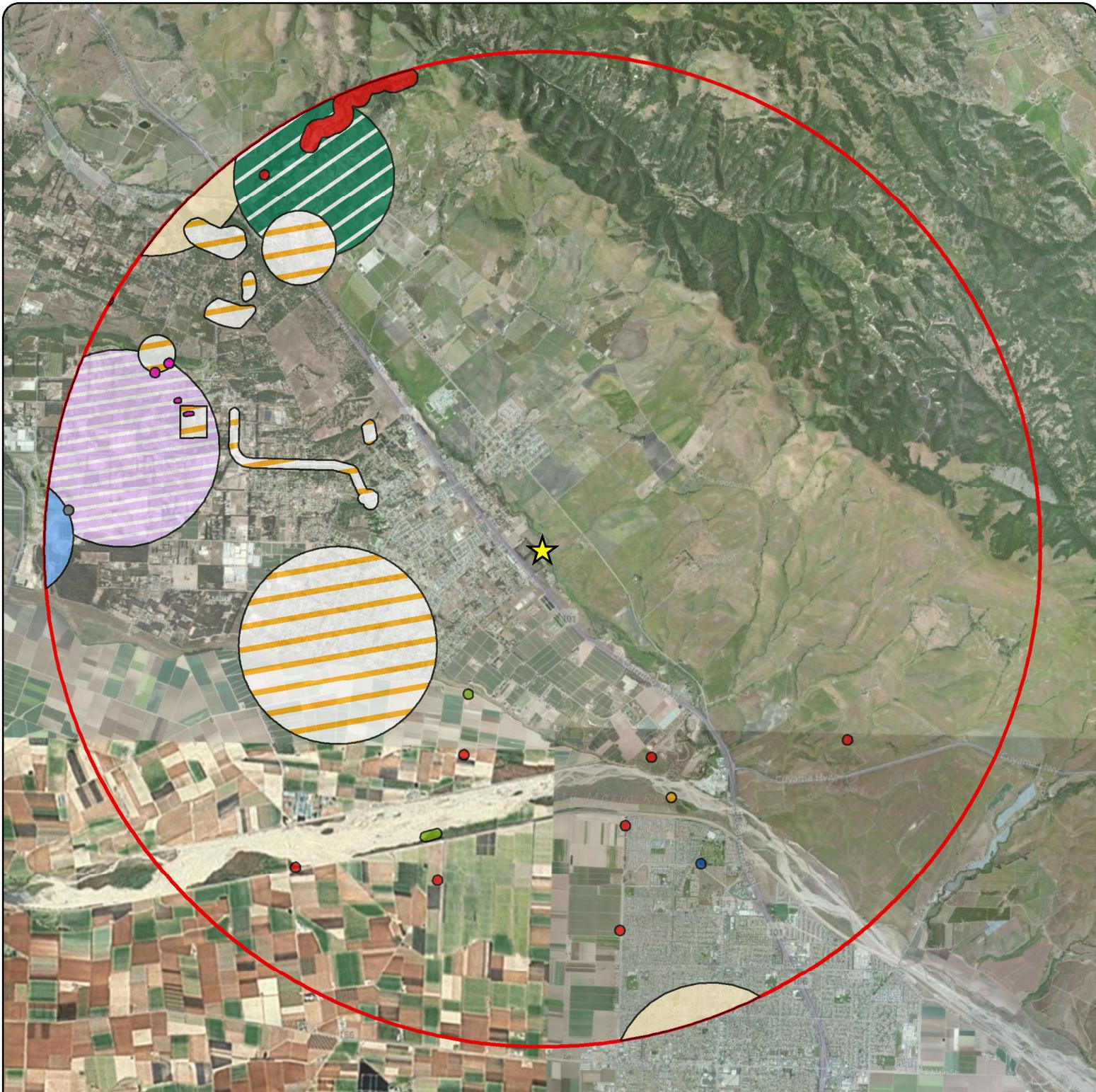
Figure 3: Vegetation Map

04 Nov 2011



Dana Adobe Nipomo Amigos Stories of the Rancho

APN 090-171-011,-030,-031,-032,-036



0 0.5 1 2 3 4 5 Miles

Figure 4: 5 mile CNDDB map

04 Nov 2011

- | | | |
|----------------------------|---------------------|--------------------|
| California red-legged frog | Coast horned lizard | Sharp-shinned hawk |
| Kellogg's horkelia | Crisp monardella | Steelhead |
| Pismo clarkia | Dune larkspur | Western spadefoot |
| San Luis Obispo monardella | Monarch butterfly | Project location |
| Wells' manzanita | Sand mesa manzanita | |



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APPENDIX B: POTENTIAL SENSITIVE SPECIES LIST

Potential Sensitive Species for Nipomo and surrounding 7.5 quadrangles: Arroyo Grande NE, Caldwell Mesa, Guadalupe, Huasna Peak, Oceano, Santa Maria, Tar Springs Ridge, and Twitchell Dam (CNDDDB and CNPS 2011).

VEGETATION COMMUNITIES			
Community Name	Description	Observed on Site?	Comments
Central Dune Scrub	Restricted to coastal areas with stabilized back dunes slopes, ridges, and flats. Vegetation consists of shrubs, subshrubs, and herbs less than a meter tall. Indicator species include <i>Lupinus chamissonis</i> .	No	This habitat does not occur within the project area.
Central Foredunes	Sand dunes along the immediate coastline characterized by dune mat species such as <i>Abronia latifolia</i> and <i>Ambrosia chamissonis</i> . Greater species richness on inner dunes than on leading edge of the beach. Perennial herbs, grasses, and low shrubs form a low canopy.	No	This habitat does not occur within the project area.
Coastal and Valley Freshwater Marsh	Dominated by perennial, emergent, and tall monocots that often form closed canopies. Tend to be <i>Typha</i> dominated and permanently flooded in fresh water, which results in deep peaty soils.	No	This habitat does not occur within the project area.
Southern Vernal Pool	Occur in topographic depressions over poorly-drained soils. Coastal pools usually form on relatively flat mesas; pools in inland valleys form over soils of alluvial or volcanic origin; montane pools are small depressions on areas of sharp temperature swings.	No	This habitat does not occur within the project area.

PLANTS					
Scientific/Common Name	Listing Status	Blooming Period	Habitat Type	Observed on Site?	Comments
<i>Agrostis hooveri</i> Hoover's bent grass	List 1B.2	April - July	Closed - cone coniferous forest, chaparral, cismontane woodland, valley and foothill grassland/usually sandy. Elevation; < 610 m.	No	Not observed during appropriately timed surveys.
<i>Arctostaphylos luciana</i> Santa Lucia manzanita	List 1B.2	December - March	Chaparral and cismontane woodlands with shale outcrops. Elevation; 350 - 850 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Arctostaphylos pilosula</i> Santa Margarita manzanita	List 1B.2	December - March	Shale outcrops, chaparral, and coniferous forest. Endemic to SLO County. Elevation; 170 - 1,100 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Arctostaphylos rudis</i> Sand mesa manzanita	List 1B.2	November - February	Chaparral (maritime), coastal scrub/sandy soils. Elevation; < 322 m.	No	Not observed during appropriately timed surveys.
<i>Arctostaphylos wellsii</i> Wells's manzanita	List 1B.1	December - May	Sandstone outcrops in chaparral and oak woodlands. Elevation; < 400 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Arenaria paludicola</i> Marsh sandwort	Fed: Endangered State: Endangered List 1B.2	May - August	Marshes and swamps (freshwater or brackish), and meadows. Elevation; < 300 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Astragalus didymocarpus</i> var. <i>milesianus</i> Miles's milk-vetch	List 1B.2	March - June	Marshes and swamps (freshwater or brackish), grassy areas near coast, and meadows. Elevation; <90 m.	No	Not observed during appropriately timed surveys.

PLANTS

Scientific/Common Name	Listing Status	Blooming Period	Habitat Type	Observed on Site?	Comments
<i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's saltscale	List 1B.2	April - October	Common on coastal bluffs in association with Coastal Sage Scrub; wetland-riparian habitats; alkaline soils. Elevation; < 200 m.	No	Not observed during appropriately timed surveys.
<i>Calochortus obispoensis</i> San Luis mariposa lily	List 1B.2	May - July	Dry serpentine soils in chaparral communities. Elevation; 75 - 730 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Calochortus palmeri</i> var. <i> palmeri</i> Palmer's mariposa lily	List 1B.2	April - July	Found in wetlands and meadows in Chaparral, Yellow Pine Forest, and wetland-riparian communities. Elevation; 1,000 - 2,390 m.	No	Not observed during appropriately timed surveys.
<i>Calystegia subacaulis</i> ssp. <i> episcopalis</i> Cambria morning glory	List 1B.2	March - July	Dry, open scrub, chaparral, woodland, coastal prairie, and grasslands. Elevation; < 500 m.	No	Not observed during appropriately timed surveys.
<i>Castilleja densiflora</i> ssp. <i> obispoensis</i> Obispo indian paintbrush	List 1B.2	March - May	Meadows and seeps, valley, foothill, and coastal grassland/sometimes serpentinite. Elevation; < 400 m.	No	Not observed during appropriately timed surveys.
<i>Chorizanthe breweri</i> Brewer's spineflower	List 1B.3	April - August	Chaparral, closed-cone coniferous forest, foothill woodland, and coastal scrub on serpentine, rocky/gravelly. Elevation; < 800 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.

PLANTS

Scientific/Common Name	Listing Status	Blooming Period	Habitat Type	Observed on Site?	Comments
<i>Chorizanthe rectispina</i> Straight-awned spineflower	List 1B.3	April - July	Chaparral, coastal scrub, and dry woodland in sandy soil. Elevation; 85 - 1,035 m.	No	Not observed during appropriately timed surveys.
<i>Cirsium rhotopilum</i> Surf thistle	State: Threatened List 1B.2	April - June	Coastal bluff scrub, coastal dunes. Elevation; < 60 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Cirsium loncholepis</i> La Graciosa thistle	Fed: Endangered State: Threatened List 1B.1	May - August	Coastal dune, scrub, cismontane woodland, valley and foothill grasslands with mesic/sandy soils. Elevation; < 220 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Cladium californicum</i> California sawgrass	List 2.2	June - September	Freshwater marsh, swamps, alkaline sink, wetland riparian. Elevation; 60 - 600 m.	No	Not observed during appropriately timed surveys (perennial herb). No suitable habitat on-site.
<i>Clarkia speciosa ssp. immaculata</i> Pismo clarkia	Fed: Endangered State: Rare List 1B.1	May - July	Chaparral (margins, openings), cismontane woodland, valley and foothill grasslands with sandy soils. Elevation; < 185 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Corethrogyne leucophylla</i> Branching beach aster	List 3.2	May - December	Coastal dunes, closed cone conifer forests. Elevation; > 60 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.

PLANTS

Scientific/Common Name	Listing Status	Blooming Period	Habitat Type	Observed on Site?	Comments
<i>Deinandra increscens ssp. foliosa</i> Leafy tarplant	List 1B.2	June - September	Foothill and valley grasslands/sandy. Elevation; 300 - 500 m.	No	Not observed during appropriately timed surveys.
<i>Deinandra increscens ssp. villosa</i> Gaviota tarplant	Fed: Endangered State: Endangered List 1B.1	May - October	Coastal scrub and valley and foothill grasslands. Elevation; 35 – 340 m.	No	Not observed during appropriately timed surveys.
<i>Delphinium parryi ssp. blochmaniae</i> Dune larkspur	List 1B.2	April - May	Chaparral and coastal sand dunes. Elevation; < 200 m.	No	Not observed during appropriately timed surveys.
<i>Delphinium umbraculorum</i> Umbrella larkspur	List 1B.3	April - June	Cismontane woodland and moist oak forest. Elevation; 400 - 1,600 m.	No	Not observed during appropriately timed surveys.
<i>Dithyrea maritima</i> Beach spectaclepod	State: Threatened List 1B.1	March - May	Coastal dunes, coastal scrub (sandy). Elevations; < 50 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Dudleya abramsii ssp. murina</i> Mouse-gray dudleya	List 1B.3	May - June	Chaparral, cismontane woodland, valley and foothill grassland/serpentinite. Elevation; 90 - 440 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Erigeron blochmaniae</i> Blochman's leafy daisy	List 1B.2	June - August	Coastal scrub and sand dunes and hills. Elevation; < 45 m.	No	Not observed during appropriately timed surveys.
<i>Horkelia cuneata ssp. puberula</i> Mesa horkelia	List 1B.1	February - September	Dry, sandy, and gravelly, coastal chaparral. Elevation; 70 - 810 m.	No	Not observed during appropriately timed surveys.

PLANTS

Scientific/Common Name	Listing Status	Blooming Period	Habitat Type	Observed on Site?	Comments
<i>Horkelia cuneata ssp. sericea</i> Kellogg's horkelia	List 1B.1	April - September	Closed-cone coniferous forest, chaparral (maritime), cismontane woodland, coastal dunes and sandhills, and coastal scrub/sandy or gravelly, openings. Elevation; < 200 m.	No	Not observed during appropriately timed surveys.
<i>Lupinus ludovicianus</i> San Luis Obispo County lupine	List 1B.2	April - June	Chaparral, cismontane woodland, grassy areas, limestone/sandstone or sandy. Elevation; 50 - 525m.	No	Not observed during appropriately timed surveys.
<i>Lupinus nipomensis</i> Nipomo Mesa lupine	Fed: Endangered State: Endangered List 1B.1	December - May	Coastal dunes. Elevation; 10 -50 m.	No	Not observed during appropriately timed surveys.
<i>Monardella crista</i> Crisp monardella	List 1B.2	April - August	Coastal dunes, coastal scrub. Elevation; 10 - 120 m.	No	Not observed during appropriately timed surveys.
<i>Monardella frutescens</i> San Luis Obispo monardella	List 1B.2	May - September	Coastal dunes and coastal scrub (sandy). Elevation; < 200 m.	No	Not observed during appropriately timed surveys.

PLANTS

Scientific/Common Name	Listing Status	Blooming Period	Habitat Type	Observed on Site?	Comments
<i>Nasturtium gambelii</i> Gambel's water cress	Fed: Endangered State: Threatened List 1B.1	April - October	Freshwater or brackish marshes. Elevation; 5- 330 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Nemacladus secundiflorus</i> var. <i>robbinsii</i> Robbins' nemacladus	List 1B.2	April - June	Chaparral, valley/foothill grasslands openings, and dry gravelly slopes. Elevation; 200 - 2,000 m.	No	Not observed during appropriately timed surveys.
<i>Orobanche parishii</i> ssp. <i>brachyloba</i> Short-lobed broomrape	List 4.2	April - October	Coastal associations including scrub and dunes. Elevation; < 305 m.	No	Not observed during appropriately timed surveys. No suitable habitat on-site.
<i>Scrophularia atrata</i> Black-flowered figwort	List 1B.2	March - July	Closed cone coniferous forest, coastal dunes, coastal scrub, and riparian scrub. Elevation; 10 -500 m.	No	Not observed during appropriately timed surveys.
<i>Symphyotrichum defoliatum</i> San Bernardino aster	List 1B.2	July - November	Cismontane woodlands, meadows, seeps, coastal scrub, foothill/valley grasslands near streams, ditches or springs. Elevation; 0 - 2,040 m.	No	Not observed during appropriately timed surveys (perennial herb).

WILDLIFE

Scientific/Common Name	Listing Status	Nesting/ Breeding Period	Habitat Type	Observed on Site?	Comments
<i>Ablautus schlingeri</i> Oso Flaco robber fly	State: CSC	Unknown	Occurs on sand dunes in the vicinity of Oso Flaco Lake.	No	Not observed during surveys. No suitable habitat on-site.
<i>Accipiter striatus</i> Sharp-shinned hawk	Fed: Endangered State: CSC	March - June	Aspen, pine, and fir forests along with urban, rural and agricultural areas. Elevation from sea level to mountains.	No	Not observed during surveys.
<i>Actinemys marmorata pallida</i> Southern Pacific pond turtle	State: CSC	April - August	Permanent or semi-permanent streams, ponds, and lakes, logs, rocks, and mats for basking. May enter brackish water.	No	Not observed during surveys. No suitable aquatic habitat is available within the survey area. May travel through the riparian corridor.
<i>Agelaius tricolor</i> Tricolored blackbird	State: CSC	Varies, but likely early spring through early summer locally	Needs nest sites near open, fresh water, protected habitat (flooded, thorny), and suitable feeding areas (pastures, rice fields, grassland, etc.).	No	Not observed during surveys. No suitable habitat on-site.
<i>Ambystoma californiense</i> California tiger salamander	Fed: Threatened State: Threatened State: CSC	December - February	Found in grasslands, oak savanna, and edges of mixed woodland and lower elevation coniferous forest.	No	Not observed during surveys. No aquatic suitable habitat on-site.

WILDLIFE

Scientific/Common Name	Listing Status	Nesting/ Breeding Period	Habitat Type	Observed on Site?	Comments
<i>Anaxyrus (=Bufo) californicus</i> Arroyo toad	Fed: Endangered State: CSC	March - July	Inhabits washes, arroyos, sandy riverbanks, and riparian areas; specialized habitat needs include exposed sandy streambanks with stable terraces for burrowing, scattered vegetation for shelter, and areas of quiet water free of predatory fishes with sandy or gravel bottoms without silt for breeding.	No	Not observed during surveys. No suitable habitat on-site.
<i>Anniella pulchra pulchra</i> Silvery legless lizard	State: CSC	March - July; live birth September - November	Moist loose soil with plant cover and under leaf litter. Found in beach dunes, chaparral, foothill woodlands, desert scrub, sandy washes, and stream terraces.	No	Not observed during surveys. Suitable habitat is located on the western portion of the survey area (possible dewatering location).
<i>Antrozous pallidus</i> Pallid bat	State: CSC	Spring - Summer	Arid areas, rock crevices, caves, tree hollows, mines, old buildings, and bridges.	No	Not observed during surveys. No suitable habitat on-site.

WILDLIFE

Scientific/Common Name	Listing Status	Nesting/ Breeding Period	Habitat Type	Observed on Site?	Comments
<i>Areniscythis brachypteris</i> Oso Flaco flightless moth	State: CSC	Unknown	Dunes along the Central Coast of San Luis Obispo. Larvae eat and are reared on a variety of dune vegetation.	No	Not observed during surveys. No suitable habitat on-site.
<i>Athene cunicularia</i> Burrowing owl	State: CSC	March - July	Open, dry grasslands, often short grasses without trees. Relies on ground burrowing animals for terrestrial habitat.	No	Not observed during surveys. Marginally suitable habitat within the grassland.
<i>Charadrius alexandrinus nivosus</i> Western snowy plover	Fed: Threatened State: CSC	March - August	Sandy beaches, salt pond levees, and shorelines of large alkali lakes. Needs friable soil for nesting.	No	Not observed during surveys. No suitable habitat on-site.
<i>Chlosyne leanira elegans</i> Oso Flaco patch butterfly	State: CSC	Unknown	Dunes within the Oso Flaco Lake system.	No	Not observed during surveys. No suitable habitat on-site.

WILDLIFE

Scientific/Common Name	Listing Status	Nesting/ Breeding Period	Habitat Type	Observed on Site?	Comments
<i>Cicindela hirticollis gravida</i> Sandy beach tiger beetle	State: CSC	Unknown	Found in moist sand near the ocean, for example in swales behind dunes or upper beaches beyond normal high tides. Adjacent to non-brackish water near the coast from San Francisco to northern Mexico. Clean, dry light colored sand in the upper zone.	No	Not observed during surveys. No suitable habitat on-site.
<i>Danaus plexippus</i> Monarch butterfly	Special Animal	Spring	Rely on milkweed and need protected stands of trees for roosting. Found in fields, meadows, weedy areas, marshes, and along roadsides.	No	Not observed during surveys. No suitable habitat on-site.
<i>Elanus leucurus</i> White-tailed kite	State: Fully protected	February – October	Tree nesting species that requires coastal or valley lowlands with herbaceous open space for foraging.	Yes	Observed foraging over the eastern portion of the property on a number of occasions.
<i>Empidonax traillii extimus</i> Southwestern willow flycatcher	Fed: Endangered State: Endangered	May – August	Dense riparian habitats with saturated soils, standing water, or other nearby water. Feeds primarily on flying insects.	No	Not observed during surveys. Suitable habitat on-site along Nipomo Creek.

WILDLIFE

Scientific/Common Name	Listing Status	Nesting/ Breeding Period	Habitat Type	Observed on Site?	Comments
<i>Eucyclogobius newberryi</i> Tidewater goby	Fed: Endangered State: CSC	Year - round (April - November)	Found in shallow water lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	No	Not observed during surveys. No suitable habitat on-site.
<i>Falco mexicanus</i> Prairie falcon	State: CSC	February - April	Primarily inhabits dry grasslands, woodlands, savannahs, cultivated fields, lake shores, and rangelands. Nests on cliffs, canyons, and rock outcrops.	No	Not observed during surveys.
<i>Gila orcuttii</i> Arroyo chub	State: CSC	Unknown	Inhabits sandy and muddy bottoms of flowing pools and headwaters of small to medium freshwater streams; often found in intermittent streams.	No	Not observed during surveys. No suitable habitat on-site.
<i>Gymnogyps californianus</i> California condor	Fed: Endangered State: Endangered	Early Spring - Summer	Rocky scrubland, montane coniferous forest, valley and foothill grasslands, oak savannah, chaparral, woodland/ forest habitats. Nesting on cliffs and trees.	No	Not observed during surveys. No suitable habitat on-site. May occur as flyover.
<i>Laterallus jamaicensis coturniculus</i> California black rail	State: Threatened Fully Protected	February - June	Saltwater, brackish, and freshwater marshes.	No	Not observed during surveys. No suitable habitat on-site.
<i>Lichnanthe albipilosa</i> White sand bear scarab beetle	State: CSC	Unknown	Inhabits coastal dunes of San Luis Obispo County, in the vicinity of dune lakes.	No	Not observed during surveys. No suitable habitat on-site.

WILDLIFE

Scientific/Common Name	Listing Status	Nesting/ Breeding Period	Habitat Type	Observed on Site?	Comments
<i>Oncorhynchus mykiss irideus</i> Steelhead - South/Central California Coast DPS	Fed: Threatened State: CSC	February - April	Federal listing refers to runs in coastal basins from Pajaro River south to, but not including, the Santa Maria River.	No	Not observed during surveys. No suitable habitat on-site. National Marine Fisheries Service has confirmed steelhead do not occur in this stream (C. Cleveland 2011).
<i>Phrynosoma blainvillii</i> Coast horned lizard	State: CSC	May - September	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Rely on harvester ants for food source.	No	Not observed during surveys. Marginally suitable habitat surrounding the survey area. No ant hills observed.
<i>Plebejus icarioides moroensis</i> Morro Bay blue butterfly	Special Animal	March - July	Found on the immediate coast of San Luis Obispo and Santa Barbara Counties. Silver dune lupine (host plant).	No	Not observed during surveys. No suitable habitat on-site.
<i>Rana draytonii</i> California red-legged frog	Fed: Threatened State: CSC	January - March	Lowlands and foothills in or near sources of deep water with dense, shrubby or emergent riparian vegetation. Breed in permanent or ephemeral water sources.	No	Not observed during surveys. Marginally suitable habitat on-site within creek and riparian corridor. Documented occurrence in the project area.

WILDLIFE

Scientific/Common Name	Listing Status	Nesting/ Breeding Period	Habitat Type	Observed on Site?	Comments
<i>Spea hammondi</i> Western spadefoot toad	State: CSC	January - August	Seasonal/vernal pools in grassland, coastal scrub, chaparral, woodland habitat, and open areas with sandy or gravelly soils.	No	Not observed during surveys. Unlikely to occur in project area due to lack of appropriate breeding habitat within one- quarter mile of the project area.
<i>Sternula antillarum browni</i> California least tern	Fed: Endangered State: Endangered Fully Protected	April - June	Coastal areas, nests on beach in loose sandy soils.	No	Not observed during surveys. No suitable habitat on-site.
<i>Taricha torosa torosa</i> Coast Range newt	State: CSC	December - May	Slow moving streams, ponds, and lakes with surrounding evergreen and oak forests, chaparral, and grasslands along coast.	No	Not observed during surveys.
<i>Taxidea taxus</i> American badger	State: CSC	February - May	Needs friable soils in open ground with an abundant food source such as California ground squirrels.	No	Not observed during surveys. No suitable burrows observed during surveys.
<i>Thamnophis hammondi</i> Two-striped garter snake	State: CSC	April - November	Typically found near pools, creeks, cattle tanks, and other water sources, often in rocky areas, in oak woodland, chaparral, brush land, and coniferous forest.	No	Not observed during surveys. May occur in project area.

WILDLIFE					
Scientific/Common Name	Listing Status	Nesting/ Breeding Period	Habitat Type	Observed on Site?	Comments
<i>Tryonia imitator</i> Mimic tryonia	State: CSC	Unknown	Found in brackish salt marshes, coastal lagoons and estuaries; able to withstand a wide range of salinities.	No	Not observed during surveys. No suitable habitat on-site.
<i>Vireo bellii pusillus</i> Least Bell's vireo	Fed: Endangered State: Endangered		Associated with thick scrub, particularly riparian forests in lower elevations (below 460 m).	No	Not observed during surveys. Suitable habitat on-site along Nipomo Creek.

Listing status shown in order of Federal, State, and CNPS list status.

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APPENDIX C: OBSERVED PLANT AND WILDLIFE SPECIES LIST

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 Plant Species Observed

*Indicates non-native species

Scientific Name	Common Name
Adoxaceae	Elderberry Family
<i>Sambucus nigra</i>	Blue elderberry
Anacardiaceae	Cashew Family
<i>Schinus molle</i> *	Peruvian pepper
<i>Toxicodendron diversilobum</i>	Poison oak
Apiaceae	Carrot Family
<i>Conium maculatum</i> *	Poison hemlock
<i>Foeniculum vulgare</i> *	Fennel
Apocynaceae	Dogbane Family
<i>Asclepias fascicularis</i>	Narrow leaf milkweed
<i>Vinca major</i> *	Periwinkle
Asteraceae	Sunflower Family
<i>Achillea millefolium</i>	Common yarrow
<i>Agoseris heterophylla</i>	California dandelion
<i>Ambrosia psilostachya</i>	Western ragweed
<i>Anthemis cotula</i> *	Dog fennel
<i>Artemisia douglasiana</i>	Mugwort
<i>Baccharis pilularis</i>	Coyote brush
<i>Carduus pycnocephalus</i> *	Italian thistle
<i>Centaurea melitensis</i> *	Tocalote
<i>Conyza canadensis</i>	Horseweed
<i>Corethrogyne filaginifolia</i>	California-aster
<i>Cynara cardunculus</i> *	Artichoke thistle
<i>Deinandra fasciculata</i>	Common tarweed
<i>Ericameria ericoides</i>	Mock heather
<i>Hemizonia congesta ssp. luzulifolia</i>	Hayfield tarweed
<i>Heterotheca grandiflora</i>	Telegraph weed
<i>Lactuca serriola</i> *	Prickly lettuce
<i>Picris echioides</i> *	Bristly ox tongue
<i>Silybum marianum</i> *	Milk thistle
<i>Sonchus asper</i> *	Spiny sow thistle
<i>Sonchus oleraceus</i> *	Sow thistle
Boraginaceae	Borage Family
<i>Amsinckia menziesii</i>	Rancher's fireweed
<i>Cryptantha clevelandii</i>	Common cryptantha
Brassicaceae	Mustard Family
<i>Brassica nigra</i> *	Black mustard
<i>Hirschfeldia incana</i> *	Wild mustard

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<i>Nasturtium officinale</i>	Watercress
<i>Raphanus raphanistrum</i> *	Wild radish
Caprifoliaceae	Honeysuckle Family
<i>Symphoricarpos mollis</i>	Creeping snowberry
Caryophyllaceae	Pink Family
<i>Silene gallica</i> *	Windmill pink
<i>Spergula arvensis</i> *	Corn spurry
<i>Stellaria media</i> *	Common chickweed
Chenopodiaceae	Goosefoot Family
<i>Chenopodium californicum</i>	California goosefoot
<i>Chenopodium murale</i> *	Sowbane
Convolvulaceae	Morning-glory Family
<i>Convolvulus arvensis</i> *	Field bindweed
Cucurbitaceae	Gourd Family
<i>Marah fabaceus</i>	Manroot
Cyperaceae	Sedge Family
<i>Isolepis cernua</i>	Low bulrush
Euphorbiaceae	Spurge Family
<i>Croton californicus</i>	California croton
<i>Eremocarpus setigerus</i>	Dove weed
Fabaceae	Legume Family
<i>Lupinus arboreus</i>	Coastal bush lupine
<i>Lupinus albifrons</i>	Silver bush lupine
<i>Lupinus bicolor</i>	Miniature lupine
<i>Lupinus nanus</i>	Sky lupine
<i>Medicago polymorpha</i> *	Burclover
<i>Trifolium hirtum</i> *	Rose clover
<i>Robinia pseudoacacia</i> *	Black locust
<i>Vicia sativa</i> *	Spring vetch
<i>Vicia villosa</i> *	Hairy vetch
Fagaceae	Oak Family
<i>Quercus agrifolia</i>	Coast live oak
<i>Quercus lobata</i>	Valley oak
Geraniaceae	Geranium Family
<i>Erodium botrys</i> *	Broad leaf filaree
<i>Erodium cicutarium</i> *	Red-stem filaree
<i>Erodium moschatum</i> *	White-stem filaree
<i>Geranium dissectum</i> *	Cut-leaf geranium
Iridaceae	Iris Family
<i>Sisyrinchium bellum</i>	Blue-eyed grass
Juncaceae	Rush Family
<i>Juncus effusus</i>	Common rush
<i>Juncus phaeocephalus</i>	Brown headed rush
Lamiaceae	Mint Family

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<i>Marrubium vulgare*</i>	Horehound
<i>Stachys bullata</i>	California hedgenettle
Liliaceae	Lily Family
<i>Bloomeria crocea</i>	Golden stars
Malvaceae	Mallow Family
<i>Malva parviflora*</i>	Cheeseweed
Montiaceae	Montia Family
<i>Claytonia perfoliata</i>	Miner's lettuce
Myrsinaceae	Myrsine Family
<i>Anagallis arvensis*</i>	Scarlet pimpernel
Myrtaceae	Myrtle Family
<i>Eucalyptus globulus*</i>	Blue gum
Oleaceae	Olive Family
<i>Fraxinus dipetala</i>	California ash
Onagraceae	Evening Primrose Family
<i>Camissonia intermedia</i>	Intermediate suncup
<i>Camissonia strigulosa</i>	Strigose suncup
<i>Clarkia purpurea ssp. quadrivulnera</i>	Purple clarkia
Papaveraceae	Poppy Family
<i>Eschscholzia californica</i>	California poppy
Phrymaceae	Lopseed Family
<i>Mimulus guttatus</i>	Yellow monkeyflower
Platanaceae	Sycamore Family
<i>Platanus racemosa</i>	California sycamore
Plantaginaceae	Plantain Family
<i>Linaria pinifolia*</i>	Pineneedle toadflax
<i>Plantago erecta</i>	Annual plantain
<i>Veronica peregrina</i>	Neckweed
Poaceae	Grass Family
<i>Avena barbata*</i>	Slender wild oats
<i>Avena fatua*</i>	Common wild oats
<i>Bromus carinatus</i>	California brome
<i>Bromus catharticus*</i>	Rescue grass
<i>Bromus diandrus*</i>	Ripgut brome
<i>Bromus hordeaceus*</i>	Soft chess brome
<i>Bromus madritensis ssp. rubens</i>	Red brome
<i>Distichlis spicata</i>	Salt grass
<i>Ehrharta calycina*</i>	Veldt grass
<i>Hordeum marinum*</i>	Seaside barley
<i>Hordeum murinum*</i>	Foxtail barley
<i>Lamarckia aurea*</i>	Goldentop grass
<i>Leymus condensatus</i>	Giant wildrye
<i>Leymus triticoides</i>	Beardless wildrye
<i>Lolium mutliflorum*</i>	Italian ryegrass

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<i>Panicum dichotomiflorum</i> *	Fall panicgrass
<i>Phalaris aquatica</i> *	Harding grass
<i>Poa annua</i> *	Annual bluegrass
<i>Poa secunda</i>	One-sides bluegrass
<i>Polypogon monspeliensis</i> *	Rabbitfoot grass
<i>Stipa cernua</i>	Nodding needlegrass
<i>Stipa pulchra</i>	Purple needlegrass
<i>Vulpia myuros</i> *	Rattail fescue
Polemoniaceae	Phlox Family
<i>Gilia capitata</i> ssp. <i>staminea</i>	Globe gilia
Polygonaceae	Buckwheat Family
<i>Chorizanthe clevelandii</i>	Cleveland's spineflower
<i>Eriogonum elongatum</i>	Long stem buckwheat
<i>Polygonum arenastrum</i> *	Common knotweed
<i>Polygonum aviculare</i> *	Prostrate knotweed
<i>Rumex acetosella</i> *	Sheep sorrel
<i>Rumex crispus</i> *	Curly dock
Rhamnaceae	Buckthorn Fmaily
<i>Frangula californica</i>	California coffeeberry
Rosaceae	Rose Family
<i>Rosa californica</i>	California wild rose
<i>Rubus ursinus</i>	Wild blackberry
Salicaceae	Willow Family
<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>	Black cottonwood
<i>Salix lasiolepis</i>	Arroyo willow
Sapindaceae	Soapberry Family
<i>Acer negundo</i> var. <i>californicum</i>	California box elder
Urticaceae	Nettle Family
<i>Hesperocnide tenella</i>	Western nettle
<i>Urtica dioica</i>	Stinging nettle
Verbenaceae	Vervain Family
<i>Verbena lasiostachys</i>	Common verbena

Dana Adobe Stories of the Rancho Project
Wildlife Species Observed

Scientific Name	Common Name
<i>Agelaius phoeniceus</i>	Red-winged blackbird
<i>Aphelocoma californica</i>	Western scrub jay
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Carpodacus mexicanus</i>	House finch
<i>Cathartes aura</i>	Turkey vulture
<i>Elanus leucurus</i>	White-tailed kite
<i>Falco sparverius</i>	Kestrel
<i>Hirundo rustica</i>	Barn swallow
<i>Icterus bullockii</i>	Bullock's oriole
<i>Melanerpes formicivorus</i>	Acorn woodpecker
<i>Mimus polyglottos</i>	Mockingbird
<i>Odocoileus hemionus</i>	Mule deer
<i>Petrochelidon pyrrhonota</i>	Cliff swallow
<i>Pipilo crissalis</i>	California towhee
<i>Pheucticus melanocephalus</i>	Black headed grosbeak
<i>Sayornis nigricans</i>	Black phoebe
<i>Sceloporus occidentalis</i>	Western fence lizard
<i>Spermophilus beechyi</i>	Ground squirrel
<i>Sturnus vulgaris</i>	European starling
<i>Troglodytes aedon</i>	House wren

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APPENDIX D: SITE PHOTOGRAPHS

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APPENDIX E: CNDDDB FORM

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View south of drainage and non-native annual grassland. May 27, 2011



View east of drainage and non-native annual grassland. May 27, 2011



Riparian corridor and associated vegetation along Nipomo Creek. May 27, 2011



Riparian corridor of Nipomo Creek. May 27, 2011

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View northeast of non-native annual grassland and drainage corridor. May 27, 2011



View southwest of rock outcrop and native bunchgrass vegetation. May 27, 2011

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View southeast of grassland and riparian corridor of Nipomo Creek. May 27, 2011



View south of non-native annual grassland and Dana Adobe. May 27, 2011



January 9, 2012

Shawna Scott
SWCA Environmental Consultants
1422 Monterey Street, Suite C200
San Luis Obispo, CA 93401

RE: DANA Master Plan - Response to U.S. Fish and Wildlife Service comments on
Biological Resources Assessment Report

Dear Ms. Scott,

We have received your email detailing the verbal feedback you have received from Colleen Mehlberg with the U.S. Fish and Wildlife Service (USFWS) regarding the Biological Resources Assessment Report submitted by Terra Verde Environmental Consulting (Terra Verde) on behalf of the DANA Adobe Amigos Master Plan. Our response and further information requested by Ms. Mehlberg is provided below.

Comment 1: Narrow down species list; some listed are extremely unlikely to occur. Please focus on what species are most likely to occur.

Response: Our report was written in the format required by San Luis Obispo County Planning and Building Department (County) for projects within the County. Specifically, they require a nine quadrangle search of the California Natural Diversity Database (CNDDDB) centered on the project area. This often results in numerous species that would not likely occur in a given project area, but ensures that all biologists working within the County are thoroughly addressing potentially occurring sensitive species. After research and field work have been conducted, the species discussed are narrowed to those discovered or with the potential to occur based on habitat.

Comment 2: Include specific information about plant and animal surveys, including:

- a. Who conducted the survey, and what are their qualifications
- b. When were the surveys conducted (specific month, day, year)
- c. Identify the study area

Response: a.) As noted in the document, Brooke Langle, Kristie Haydu, Jessica Adinolfi, Kyle Giacomini, Brian Dugas, and Amy Keate participated in the multiple surveys that occurred on the project. All of the work was conducted under direction of senior staff Brooke Langle and Brian Dugas. Ms. Langle has over 16 years of experience of conducting biological and botanical assessments in the County. Mr. Dugas possesses an equal amount of experience. In particular, Ms. Langle and Mr. Dugas have worked on



numerous projects in the Nipomo area, including projects with California red-legged frog and Pismo clarkia, thus, are familiar with the resources of the area. Ms. Adinolfi is an excellent botanist, having worked with Dr. David Keil at Cal Poly over the last two years. Ms. Haydu is an experienced botanist with many years of experience in environmental consulting; she is currently working on her Master's degree in botany at Cal Poly. Mr. Giacomini and Ms. Keate have degrees in natural resources management and served as assistants in the field.

b.) These dates are detailed in the report on page 4. The follow up surveys occurred from August 2011 through November 2011. Terra Verde was working on behalf of the County on a ConocoPhillips remediation project on the property, thus, we were frequently in the field during this timeframe.

c.) As noted in the report on page 4, 130 acres plus a 100-foot buffer was surveyed.

Comments 3 and 4: Expand the discussion about special-status plants, especially Pismo clarkia, because it seems like there may be habitat present for this species. Table notes that Nipomo mesa lupine was not observed; however, please provide information regarding suitable habitat (present or not).

Response: As noted in our report, numerous sensitive plants had the potential to occur on the property based on habitat, particularly vegetation types and soils present. Pismo clarkia was considered as a potentially occurring species due to the sandy soils found on the western portion of the property as well as the presence of oak trees in the southwest corner of the property. As such, surveys were conducted during the blooming period for this species. Terra Verde staff conducted focused Pismo clarkia surveys for other properties in the region in 2010 and 2011. A part of these survey efforts was to verify blooming periods of known populations of Pismo clarkia in the region. The spring surveys did not detect Pismo clarkia as occurring on the DANA property. Additionally, work conducted in previous years by ConocoPhillips did not discover this species or other sensitive plant species on the property.

Nipomo Mesa lupine was also considered during our work on the property. The sandy soils provide appropriate soil conditions, although this area is not considered as coastal dunes or stabilized back dune habitat, as occurs in the Guadalupe Dunes to the west. The disturbed, weedy nature of the site, including the invasion of veldt grass, further reduce the likelihood of Nipomo Mesa lupine occurring on the property. This species was not detected during the survey work nor detected by others during previous surveys.

Comment 5: RE: bird and frog surveys, include specific information including:

- a. Who conducted the surveys, and what are their qualifications
- b. How many surveys were conducted, and when (specific month, day, year)
- c. What were the weather conditions during the surveys

Response: Please see response to comment 2 above. Weather conditions varied between the surveys, but all occurred during fair weather conditions and in daylight hours.



Numerous nighttime surveys were conducted by ConocoPhillips biologists, specifically to look for California red-legged frogs in or near Nipomo Creek, prior to the start of the remediation project that occurred in early September. These surveys and daily monitoring by ConocoPhillips between August and early November 2011 did not detect California red-legged frogs.

Comment 6: Noted concern about deferring California red-legged frog surveys, suggests conducting surveys at the appropriate time, and provide more clarification about survey results and findings. USFWS is concerned that the species may be observed during the pre-construction surveys, which would halt construction and require further consultation and take authorization.

Response: Due to a positive identification of California red-legged frog in the past on the property and the availability of suitable habitat, we have assumed that this species may be present during project implementation. As such, DANA has been advised to consult with the USFWS to receive incidental take coverage prior to construction. At this time, the planned work will include the need to obtain U.S. Army Corps (Corps) authorization for work in Nipomo and/or Carrillo Creeks, thus, we are anticipating that the Corps will act as the lead Federal agency and will provide the Federal nexus for Section 7 consultation with the USFWS.

Comment 7: The discussion about wildlife was good – but please provide more discussion about possible plants (they are listed in the table but there is no discussion in the document).

Response: The report limited the discussion of sensitive plant species since most were ruled out based on lack of habitat and none were discovered during the surveys. However, 21 potential sensitive plants were listed as potentially occurring. We can prepare further species descriptions to include in the document to match the wildlife species discussion.

Please contact me if you have any questions or need further information.

Sincerely,

A handwritten signature in black ink that reads "Brooke Langle".

Brooke Langle
Principal Biologist

CC: Marina Washburn, DANA Adobe Amigos
Jan DiLeo, DANA Adobe Amigos

