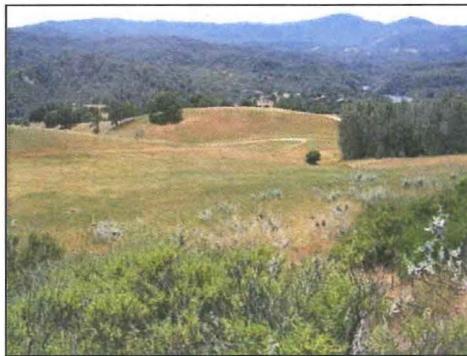


# **Biological Report**

for the

## **Cantinas Camp**

Lake Nacimiento  
San Luis Obispo County  
California



Prepared for

**Cantinas Ranch Foundation**  
22917 Pacific Coast Hwy, Suite 300A  
Malibu, CA 90265

by

**ALTHOUSE AND MEADE, INC.**  
**BIOLOGICAL AND ENVIRONMENTAL SERVICES**  
1602 Spring Street  
Paso Robles, CA 93446  
(805) 237-9626

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## Table of Contents

Synopsis .....	v
1.0 Introduction.....	1
1.1 Project Location and Description .....	1
1.2 Responsible Parties.....	2
2.0 Methods.....	2
3.0 Results.....	5
3.1 Existing Conditions .....	5
3.2 Soils .....	6
3.3 Habitat Types.....	8
3.3.1 Grassland.....	9
3.3.2 Foothill woodland .....	10
3.3.3 Chaparral and scrub .....	11
3.3.4 Wetland.....	12
3.3.5 Riparian.....	12
3.3.6 Lacustrine.....	12
3.4 Plant List.....	13
3.5 Wildlife List.....	20
3.6 Special Status Plants and Animals.....	27
3.6.1 Introduction to CNPS lists .....	27
3.6.2 Introduction to CNDDDB definitions.....	27
3.6.3 Special status species lists.....	28
3.6.4 Special status plants that could or do occur on the Property .....	37
3.6.5 Special status animals that could occur on the Property.....	41
3.6.6 Sensitive natural communities .....	44
4.0 Discussion.....	45
4.1 General Discussion of Property Conditions .....	45
4.2 Regulatory Framework.....	45
4.2.1 CEQA guidance .....	45
4.2.2 Federal and state resource protections .....	46
5.0 Potential Impacts.....	47
5.1 Potential Habitat Impacts.....	48
5.1.1 Grassland.....	48
5.1.2 Foothill woodland .....	48
5.1.3 Chaparral and scrub .....	48
5.1.4 Wetland.....	48
5.1.5 Riparian.....	48
5.1.6 Lacustrine.....	48
5.2 Potential Oak and Pine Tree Impacts .....	49
5.3 Potential Impacts to Common Wildlife.....	49
5.3.1 Nesting habitat .....	49
5.3.2 Reduction of wildlife movement corridors .....	49
5.4 Potential Impacts to Special Status Plant Species .....	49

5.4.1	Eriastrum luteum.....	49
5.4.2	Mucronea californica .....	50
5.4.3	Navarretia jaredii .....	50
5.5	Potential Impacts to Special Status Animal Species .....	50
5.5.1	Bald eagle.....	50
5.5.2	Special status birds.....	51
5.5.3	California legless lizard .....	51
5.5.4	Coast horned lizard .....	51
5.5.5	Pallid bat .....	51
5.5.6	Western pond turtle.....	51
5.5.7	Monterey dusky-footed woodrat.....	52
5.5.8	Salinas pocket mouse.....	52
5.5.9	Western spadefoot toad.....	52
5.5.10	California red-legged frog.....	52
6.0	Mitigation Recommendations.....	52
6.1	Habitat Mitigations.....	52
6.1.1	Grassland.....	52
6.1.2	Foothill woodland .....	53
6.1.3	Chaparral and scrub .....	53
6.1.4	Wetland.....	53
6.1.5	Riparian.....	53
6.1.6	Lacustrine.....	53
6.2	Oak and Pine Tree Mitigations.....	54
6.3	Common Wildlife Mitigations.....	54
6.3.1	Nesting habitat .....	54
6.3.2	Reduction of wildlife movement corridors .....	55
6.4	Mitigations for Special Status Plant Species .....	55
6.5	Mitigations for Special Status Animal Species .....	55
6.5.1	Bald eagle.....	55
6.5.2	Special status birds.....	55
6.5.3	California legless lizard .....	56
6.5.4	Coast horned lizard .....	56
6.5.5	Pallid bat .....	56
6.5.6	Western pond turtle.....	57
6.5.7	Monterey dusky-footed woodrat.....	57
6.5.8	Salinas pocket mouse.....	57
6.5.9	Western spadefoot toad.....	57
6.5.10	California red-legged frog.....	57
7.0	Figures.....	58
8.0	Site Plan .....	66
9.0	References.....	68
	APPENDIX A – Photographs.....	A - 1
	APPENDIX B – CNDDDB Reports.....	B - 1
	APPENDIX C – Bald Eagle Observation Database .....	C - 1

## **List of Tables**

TABLE 1. RESPONSIBLE PARTIES .....	2
TABLE 2. BIOLOGICAL SURVEYS .....	4
TABLE 3. PLANT LIST .....	13
TABLE 4. WILDLIFE LIST.....	20
TABLE 5. SPECIAL STATUS PLANT LIST.....	29
TABLE 6. SPECIAL STATUS ANIMAL LIST.....	33
TABLE C-1. BALD EAGLE OBSERVATION DATABASE.....	C - 2

## **Synopsis**

- This biological report examines an approximately 560 acre Property located on Lynch Canyon Road on the north shore of Lake Nacimiento, San Luis Obispo County.
- The applicant proposes to develop an Organizational Camp on the Property. The camp would accommodate up to 200 campers and 100 staff members.
- The Property consists of six general habitat types: grassland, foothill woodland, chaparral and scrub, riparian, wetland, and lacustrine. The habitats form a complex mosaic of vegetation communities on mountainous terrain on the north shore of Lake Nacimiento. We describe different vegetation community types for each general habitat type. Floristic surveys identified 211 species of plants on the Property.
- Field studies conducted in 2006, 2007, 2008 and 2011 identified three special status plants and five special status animals on the Property. A Biological Resource Map is provided in Section 7.0.
- Four species of native oak trees occur on the Property. All oak tree species are afforded protections by the County of San Luis Obispo. Valley oak trees form small single-species woodlands on deeper alluvial soils in two areas of the Property. Valley oak woodland is designated as a sensitive natural community by the California Department of Fish and Game.
- Native perennial bunchgrasses occur on the Property and are a dominant species in some grassland areas. Valley needlegrass grassland is designated as a sensitive natural community by the California Department of Fish and Game. Impacts to sensitive natural communities require consideration under the California Environmental Quality Act (CEQA).

## **1.0 Introduction**

This report provides information regarding biological resources on an approximately 560 acre ranch in rural Paso Robles, San Luis Obispo County, California. The ranch, formerly known as Lynch Ranch, is the site of the currently proposed Cantinas Camp project (“Project”). Botanical and wildlife surveys of the entire Property (“Property”) were first conducted by our firm in 2006, and a Biological Report was prepared at that time (Althouse and Meade, Inc. December 2006). The 2006 Biological Report was updated in 2007 to provide a project-specific impact analysis for a proposed high school camp (Althouse and Meade, Inc. September 2007). Additionally, field work was conducted from June 2006 to February 2008 as part of a protocol habitat assessment survey for bald eagles. In 2011, we conducted site visits in June and July to review and document the current condition of previously mapped biological resources on the Property to facilitate preparation of an updated biological report that includes results of the bald eagle habitat assessment. This report constitutes an up to date biological report for the Cantinas Camp project.

### **1.1 Project Location and Description**

The Cantinas Camp project is located on Lynch Canyon Road on the north side of Lake Nacimiento, northwest of Paso Robles, San Luis Obispo County, California (Section 7.0, Figure 1). The Property is within the Bryson United States Geological Survey (USGS) 7.5 minute quadrangle. The approximate coordinates for the center of the Property are latitude 35.758003 °N, longitude 121.16689 °W. Elevation varies from approximately 800 feet to nearly 1400 feet above sea level.

The proposed Project is an Organizational Camp focused on the performing arts. At full build out, the camp will contain 16 camper buildings and 16 staff units, housing up to 200 campers and 100 faculty and staff members, respectively. Access to the site will be from Lynch Canyon Road, a County maintained road. Internal roads will be improved to CDF standards, with internal circulation available for service vehicle use only. Impacts will be minimized by paving roads only where required due to slope, with remaining portions improved using a low dust producing all-weather base. Paved roadway sections will be surfaced with “grasscrete” permeable pavers or similar product. An emergency access bridge connecting the project area with Oak Shores Drive is proposed over Kavanaugh Creek. A site plan prepared by North Coast Engineering is provided in Section 8.0.

## 1.2 Responsible Parties

TABLE 1. RESPONSIBLE PARTIES. Applicant, agent, lead agency, biological consultant, and engineering/surveying company are provided.

<b>Applicant</b>	
Cantinas Ranch Foundation 22917 Pacific Coast Hwy, Suite 300A Malibu, CA 90265	
<b>Lead Agency</b>	<b>Agent</b>
County of San Luis Obispo Department of Planning and Building County Government Center San Luis Obispo, CA 93408 805-781-5600	Kirk Consulting 9720 Atascadero Avenue Atascadero, CA 93422 805-461-5765 Contact: Rachel Kovesdi
<b>Engineering/Surveying</b>	<b>Biological Consultant</b>
North Coast Engineering, Inc. 725 Creston Road, Suite B Paso Robles, Ca 93446 805- 239-3127 Contact: Christy Gabler	Althouse and Meade, Inc. 1602 Spring Street Paso Robles, CA 93446 805-237-9626 Contact: Jason Dart

## 2.0 Methods

The Property was originally surveyed for biological resources on May 20, 23, 27, June 7 and 25, July 9, September 7, and December 20, 2006 (Table 2). Surveys were conducted by Althouse and Meade, Inc. biologists Jason Dart and Daniel E. Meade, Ph.D. Field work was conducted during daylight hours between 6:00 a.m. and 5:00 p.m. Surveys for plant and animal species were conducted in all areas of the Property. Biologists accessed sections of the Property by vehicle, and conducted surveys on foot in order to compile species lists and to search for, and map, special status plants and animals. Steep shoreline areas at the south end of the Property were investigated by boat with landings to inspect biological resources.

Each habitat type occurring on the Property was inspected, described, and catalogued (Section 3.3). Sensitive natural communities were marked in the field by biologists and

were surveyed by licensed land surveyors. All plant and animal species observed on the Property were identified and recorded (Sections 3.4 and 3.5). Identification of botanical resources included field observations and laboratory analysis of collected material (Table 3). Floristic surveys were conducted in 2006 and 2011, and were timed to coincide with the typical blooming period for special status plant species with the potential to occur on the Property. Floristic surveys were conducted according to agency guidelines (United States Fish and Wildlife 2000, California Department of Fish and Game 2009, and California Native Plant Society 2001). Botanical nomenclature used in this document follows the Jepson Manual (Hickman 1993). Where more recent nomenclature is used, the Jepson Manual name is provided in brackets.

Wildlife documentation included observations of animal presence, nests, tracks, and other wildlife sign. Observations of wildlife were recorded during field surveys in all areas of the Property (Table 4). Birds were identified by sight, using 10 power binoculars, or by vocalizations. Reptiles and amphibians were identified by sight, often using binoculars, and by hand-captures; traps were not used. Mammals recorded at the site were identified by sight and tracks. All plant and animal species observed on the Property were identified and recorded.

Potential special status plant species were compared to herbarium specimens at the Robert F. Hoover Herbarium, California Polytechnic State University. Some specimens collected during our site visits were deposited in the Hoover Herbarium. Special status plant populations were mapped by hand on high resolution aerial photographs of the Property.

We conducted a review of the California Natural Diversity Database (CNDDDB July 2, 2011 data) and the California Native Plant Society (CNPS) On-line Inventory of Rare and Endangered Plants of California for special status species known to occur in four USGS 7.5-minute quadrangles that are within five miles of the Property: Bryson, Tierra Redonda Mountain, Pebblestone shut-in, and Lime Mountain.

Additional special status species research consisted of reviewing previous biological reports for the area and searching on-line museum and herbarium specimen records for locality data within San Luis Obispo County. We reviewed online databases of specimen records maintained by the Museum of Vertebrate Zoology at the University of California, Berkeley, the California Academy of Sciences, and the Consortium of California Herbaria. Additional special status species with potential to occur on or near the Property were added to our special status species list (refer to Table 5 and Table 6).

Special status species lists produced by database and literature searches were cross-referenced with the described habitat types on the Property to identify all potential special status species that could occur on or near the Property. Each special status species that could occur on or near the Property is individually discussed (refer to Sections 3.6.4 and 3.6.5). A report was made to the CNDDDB if field surveys found special status species on the Property.

Tree tagging and assessments conducted on the Property by Jason Dart and Meg Perry examined more than 1400 trees in the project areas between December 2006 and April 2007 (Table 2). All trees in the project areas were assessed for number of trunks,

diameter at breast height (dbh), height and width of canopy, and a letter grade was assigned to each tree representing health and habitat value.

A bald eagle protocol habitat assessment survey was conducted from June 2006 to February 2008. The survey effort was conducted according to protocols adopted by the United States Fish and Wildlife Service (USFWS). The protocols are outlined in the document *Protocol for Evaluating Bald Eagle Habitat and Populations in California* (Jackman 2004).

Bald eagle survey methodology consisted of census, continuous monitoring, and nest monitoring surveys using 10 power binoculars and 20-60 power spotting scopes. The surveys included two wintering seasons and one nesting season. Bald eagle habitat use on and near the Property was documented by the survey. Aerial photographs of the Property were used to map individual trees used by bald eagles.

Biological and botanical surveys were conducted in June and July 2011 by Jason Dart, Audrey Weichert and Meg Perry to confirm the current condition of biological constraints mapped in 2006, and to review the project areas for other biological constraints.

TABLE 2. BIOLOGICAL SURVEYS. Survey dates, times, weather observations, and biologist. Some plants were collected for later identification in the laboratory. Time documented here does not include laboratory time for identification of botanical resources.

Survey Date	Survey Time Survey Type	Temp.	Wind	Weather Observations	Biologist(s)
5/20/06	9:15 am to 5:00 pm Biological	75± °F	13-18 mph	Partly cloudy	J. Dart
5/21/06	6:30 am to 8:00 am Biological	60± °F	4-7 mph	Sunny	J. Dart
5/23/06	2:30 pm to 4:00 pm Biological	75± °F	4-7 mph	Partly cloudy	J. Dart
5/27/06	8:00 am to 1:30 pm Biological	75± °F	8-12 mph	Sunny	J. Dart
6/7/06	8:20 am to 4:45 pm Biological Bald Eagle-Breeding #1	60 °F	8-12 mph	Sunny, scattered high clouds	J. Dart
6/25/06	7:40 am to 12:00 pm Biological & Bald Eagle-Breeding #2	70-99 °F	1-3 mph	Sunny & clear	J. Dart D. Meade
7/9/06	6:15 am to 8:30 am Biological Bald Eagle-Breeding #3	59 °F	0 mph	Sunny & clear	J. Dart
7/27/06	10:23 a.m. to 12:00 p.m. Bald Eagle-Breeding #4	82 °F	0-5 mph	Sunny & warm	J. Dart D. Meade
9/7/06	8:15 am to 10:15 am Biological	60's °F	4-7 mph	Sunny	J. Dart
12/20/06	7:15 am to 11:50 am Biological Bald Eagle-Winter #1	24-46 °F	0-3 mph	Dense fog, frost	J. Dart
1/5/07	Tree Assessments				J. Dart

1/10/07	Tree Assessments				J. Dart
1/17/07	Tree Assessments				J. Dart
1/25/07	8:25 a.m. to 5:00 p.m. Bald Eagle-Winter #2 Tree Assessment	34-60 °F	0-3 mph	Sunny & clear	J. Dart M. Perry
2/16/07	Tree Assessments				J. Dart
2/26/07	6:40 a.m. to 11:00 a.m. Bald Eagle-Winter #3	38-59 °F	0-3 mph	Foggy	J. Dart
3/5/07	7:20 a.m. to 11:35 a.m. Bald Eagle-Breeding #5	46-67 °F	4-7 mph	High clouds	J. Dart
3/22/07	6:52 a.m. to 11:40 a.m. Bald Eagle-Breeding #6 7:12 a.m. to 10:45 a.m.	38-68 °F	0-7 mph	Low clouds, clearing to sun	J. Dart
4/12/07	Bald Eagle-Breeding #7 Tree Assessments	42-67 °F	0-18 mph	Sunny & cool, warming with increasing wind	J. Dart
4/26/07	6:56 a.m. to 11:00 a.m. Bald Eagle-Breeding #8	44-75 °F	4-7 mph	Clear & calm	J. Dart
5/31/07	6:48 a.m. to 10:38 a.m. Bald Eagle-Breeding #9	48-78 °F	0-3 mph	Overcast & calm	J. Dart
6/29/07	7:04 a.m. to 9:43 a.m. Bald Eagle-Breeding #10	56-62 °F	0-3 mph	Clear & sunny	J. Dart
12/11/07	9:45 a.m. to 11:45 a.m. CRLF Assessment	54-60 °F	0-3 mph	Clear & calm	J. Dart
12/21/07	6:47 a.m. to 9:50 a.m. Bald Eagle-Winter #4	30-48 °F	0-3 mph	Cold & clear	J. Dart
1/29/08	6:58 a.m. to 10:15 a.m. Bald Eagle-Winter #5	34-49 °F	0-3 mph	Dense low fog	J. Dart
2/19/08	6:53 a.m. to 10:42 a.m. Bald Eagle-Winter #6	38-58 °F	0-3 mph	Overcast & calm	J. Dart
6/9/11	7:00 a.m. to 11:45 a.m. Biological	58-82 °F	0-3 mph	Sunny & hot	J. Dart A. Weichert
7/12/11	8:35 a.m. to 10:10 a.m. Biological	64-81 °F	0-3 mph	Sunny & hot	J. Dart M. Perry

### 3.0 Results

#### 3.1 Existing Conditions

The Property is a large, wooded ranch located in the Santa Lucia Mountains on the northwest corner of Lake Nacimiento, west of Tierra Redonda Mountain. It consists of woodlands, chaparral, and grassland habitats on mountain slopes with numerous drainage features supporting seasonal and perennial ponds, wetlands, and riparian habitat. Cantinas Creek is a seasonal stream that passes through the northeastern Property corner to its confluence with Kavanaugh Creek at Lake Nacimiento. Kavanaugh Creek enters the lake along the northeastern Property boundary. The valley created by Cantinas Creek is the only flat bottom-land on the Property. This meadow is an annual grassland dotted with mature valley oaks. No special status plants were identified in the vicinity. Old fruit trees and barbed-wire fences suggest a long history of human occupation. The

meadow has certainly been grazed and may also have been farmed. In 2006 the ranch was noted to have not been grazed for several years. The Property did not appear to be grazed in 2011 either.

A ridge-line oriented northwest to southeast separates the Nacimiento River confluence with Lake Nacimiento to the west from the Kavanaugh and Cantinas Creeks confluence to the east. The peninsula that is formed by the convergence of these streams supports dense foothill woodland and grassland habitats on the northeast-facing slope and mixed chaparral, scrub, and foothill woodland on the southwest-facing slope. Several special status plants were mapped on the south-facing slope. The largest continuous woodland habitat on the Property occurs on the peninsula and encompasses elements of several woodland vegetation types (see section 3.3.2). Foothill pine trees are a prominent feature of the woodland habitat on the peninsula. Bald eagles were not observed in pine trees on the Property in 2006, but were observed roosting in oak trees near the lake shore. In 2011 we observed juvenile bald eagles roosting in a large pine tree overlooking the confluence of Cantinas and Kavanaugh Creeks.

On north and northeast aspects overlooking the Cantinas Creek confluence with Lake Nacimiento is a grassland meadow containing a stand of purple needlegrass. The needlegrass stand, at just over an acre in size, is mapped as valley needlegrass grassland (refer to Section 3.3.1). This habitat type is designated as a sensitive natural community by the California Department of Fish and Game (CDFG). The remaining grassland habitat in this area is annual grassland dominated by soft chess brome and wild oats. Paso Robles navarretia is a special status plant that occurs in the annual grassland habitat in this area (see Section 3.6.4 for discussion of recent taxonomic changes for this plant).

The west side of the Property is composed of moderate slopes on dibble clay loam soils. Grasslands are the dominant habitat type, with chaparral on steep slopes and wetlands in the drainages. Oaks are scattered throughout, but are more common in drainages. Two man-made ponds created by earthen dams are located in swales. A small, abandoned modular home is located near the lake shore. The surrounding 11 acres of grassland habitat are mapped as valley needlegrass grassland where purple needlegrass is common.

### **3.2 Soils**

The United States Department of Agriculture (USDA) Soil Survey of San Luis Obispo County, California, Paso Robles Area (1983) indicates thirteen soil types occur on the Property: Arbuckle-Positas complex, 50 to 75 percent slopes (105), Dibble clay loam, 15 to 30 percent slopes (135), Dibble clay loam, 30 to 50 percent slopes (136), Dibble clay loam, 50 to 75 percent slopes (137), Gaviota-Rock outcrop complex, 30 to 75 percent slopes (141), Hanford and Greenfield soils, 2 to 9 percent slopes (148), Rincon clay loam, 9 to 15 percent slopes (189), Rock outcrop-Gaviota complex, 30 to 75 percent slopes (190), Ryer clay loam, 2 to 9 percent slopes (191), Shimmon loam, 15 to 30 percent (201), Shimmon loam, 30 to 50 percent slopes (202), and Shimmon-Dibble association, very steep (204). A soil map is provided in Section 7.0.

**Arbuckle-Positas complex, 50 to 75 percent slopes (105)** is a very deep, well drained soil derived from mixed rock alluvium. Gravel occurs throughout the profile in some areas. It is composed of approximately 40 percent Arbuckle fine sandy loam, 30 percent

Positas coarse sandy loam, 10 percent Greenfield fine sandy loam, 10 percent Cropley clay and Hanford fine sandy loam, and 10 percent of a soil that is similar to Positas soil except that it has very gravelly sandy clay subsoil. Arbuckle soil has a moderately slow permeability, a moderate to high available water capacity, and a moderate erosion potential. The Positas soil has a very slow permeability, a moderate to high available water capacity, and a moderate erosion hazard. The Arbuckle-Positas complex is associated directly with the Cantinas Creek stream channel and supports a live oak woodland riparian canopy.

**Dibble clay loam, between 15 and 75 percent slopes (135-137)** is a moderately deep, well drained soil formed in material weathered from sandstone and shale. Typically, the surface layer is a 12 inch thick pale brown clay loam. Dibble soil has slow permeability and the available water capacity is low to moderate. Surface runoff and erosion hazard increase with increased slope. Dibble clay loams are most prominent in the western portion of the Property, supporting extensive grassland areas on moderate slopes. Patches of Dibble clay loam are mapped on the peninsula extending into the lake where mixed stands of oak and pine are prominent.

**Gaviota-Rock outcrop complex, 30 to 75 percent slopes (141)** consists of steep to very steep soils on mountains. This complex is about 40 percent Gaviota sandy loam and 25 percent Rock outcrop. Included with this complex in mapping are about 15 percent Cieneba coarse sandy loam, 10 percent San Andreas sandy loam, 5 percent Dibble clay loam, and 5 percent small areas of McMullin gravelly loam, Lompico loam, and Shimmon loam. The Gaviota soil is a shallow, well drained soil that formed in material weathered from sandstone. This soil has moderately rapid permeability and the available water capacity is very low. Surface runoff is very rapid and the hazard of erosion is high. Rock outcrops are areas of hard sandstone. The largest map unit of Gaviota-Rock outcrop complex is located on the southwest-facing slope of the peninsula, supporting a mosaic of chaparral and foothill woodland habitat types. Steep slopes in the west and northwest corners of the Property support dense chamise-black sage chaparral. Three special status plant species were mapped in this soil type.

**Hanford and Greenfield soils, with 2 to 9 percent slopes (148)** is made up of 40 percent Hanford fine sandy loam and 30 percent Greenfield fine sandy loam. Included with these soils in mapping are about 15 percent Arbuckle fine sandy loam, 10 percent San Ysidro loam, and 5 percent small areas of Cropley clay, Metz loamy sand, Pico fine sandy loam, Rincon clay loam, and Tujunga fine sand. The Hanford and Greenfield soils are very deep, well-drained soils that formed in mixed rock alluvium. Both soil types have moderately rapid permeability and moderate to high available water capacity. Surface runoff is medium and the hazard of erosion is high. This soil map unit occurs in two small locations along the shoreline of the lake at the eastern Property boundary. This soil type supports valley oak woodland habitat.

**Rincon clay loam, 9 to 15 percent slopes (189)** is a very deep, strongly sloping, well drained soil formed in alluvium. It occurs on alluvial fans from 600 feet to 1500 feet elevation. This soil is calcareous in the lower layers. Included with this soil map unit are about 5 percent Los Osos clay loam, 5 percent Lockwood shaly loam, and 5 percent small areas of Ayar silty clay and Cropley clay. This Rincon soil has slow permeability, high to very high available water capacity, and a moderate erosion hazard. The Rincon clay

loam map unit extends into the northwestern corner of the Property, and supports grassland habitat.

**Rock outcrop-Gaviota complex, 30 to 75 percent slopes (190)** is about 60 percent rock outcrop and 20 percent Gaviota sandy loam. Included with this complex in mapping are about 10 percent Cieneba coarse sandy loam and 10 percent small areas of Dibble clay loam, McMullin gravelly loam, Lompico loam, San Andreas sandy loam, and Shimmon loam. Rock outcrops are areas of hard sandstone. The Gaviota soil is a shallow, well drained soil with moderately rapid permeability. The available water capacity is very low. Surface runoff is very rapid and the hazard of erosion is very high. Rock outcrop-Gaviota complex occurs adjacent to map unit 141 on the southwest-facing slope of the peninsula extending into the lake. It supports chaparral habitat.

**Ryer clay loam, 2 to 9 percent slopes (191)** is a very deep, gently sloping to moderately sloping, well drained soil formed in alluvium derived from mixed rocks. Included with this soil in mapping are about 10 percent Positas coarse sandy loam and 5 percent small areas of Dibble clay loam, Gaviota sandy loam, and Rincon clay loam. This Ryer soil has slow permeability and the available water capacity is high to very high. The surface runoff is medium and the hazard of erosion is moderate. This map unit is located on the west side of Cantinas Creek. It supports annual grassland, valley oak woodland, and mixed foothill woodland habitats.

**Shimmon loam, 15 to 30 percent slopes (201) and 30 to 50 percent slopes (202)** are moderately deep, moderately steep to steep, well drained soils formed in material weathered from sandstone. They occur on hills from 1000 feet to 2500 feet elevation. Included with these map units are about 10 percent of a soil similar to Shimmon soil except that it is underlain by hard sandstone, 5 percent Dibble clay loam, and 5 percent small areas of Balcom loam, Linne shaly clay loam, and Lodo gravelly clay loam. A few areas have deep gullies and rock outcrops. This Shimmon soil has moderately slow permeability, low to moderate available water capacity, and a high erosion hazard. This map unit occurs within the Property boundaries in a small band at the northwestern Property corner. Annual grassland is the dominant habitat type on Shimmon loam.

**Shimmon-Dibble association, very steep (204)** consists of 40 percent Shimmon loam and 35 percent Dibble clay loam. Slope is 50 to 75 percent. The Shimmon soil is a moderately deep, well drained soil with moderately slow permeability. The available water capacity is low to moderate. Surface runoff is very rapid and the hazard of erosion is very high. The Dibble soil is moderately deep, well drained soil with slow permeability. The available water capacity is low to moderate. Surface runoff is very rapid and the hazard of erosion is high. Two large map units of the Shimmon-Dibble association occur on the Property. Foothill woodland habitat is the dominant habitat type on this soil type.

### **3.3 Habitat Types**

Six habitat types occur on the Property: grassland, foothill woodland, chaparral and scrub, wetland, riparian, and lacustrine. Grassland, woodland, and chaparral communities are subdivided into dominant vegetation associations. A Habitat Map is provided in Section 7.0, for reference. A Biological Resource Map is also provided that

shows the mapped locations of sensitive natural communities on the Property in relation to proposed project areas.

### 3.3.1 Grassland

With its varied topography and numerous soil types, the Property contains two distinct grassland habitat associations. The two grassland vegetation associations described are annual grassland and valley needlegrass grassland.

**A. Annual grassland:** A grassland habitat dominated by non-native Mediterranean annual grass species, the annual grassland habitat is the most prolific grassland association on the Property. The dominant species are wild oats (*Avena fatua*, *A. barbata*) and soft chess brome (*Bromus hordeaceus*). In disturbed areas species such as foxtail barley (*Hordeum murinum*), false brome (*Brachypodium distachyon*), and rip-gut brome (*Bromus diandrus*) are common. Purple needlegrass (*Nassella pulchra*) is occasional to common on slopes and shallow soils. Annual grasslands occur in meadows, valleys, and as an understory to blue oak woodland habitat. This grassland association is the dominant grassland type in deeper soils, and those soils with a higher nutrient content. Common associates include tarweed (*Hemizonia kelloggii*), clarkia (*Clarkia purpurea*), hedge parsley (*Torilis arvensis*), and dandelions (*Agoseris heterophylla*, *A. grandiflora*). Shrubs are uncommon in the grassland habitat, with coyote brush (*Baccharis pilularis*) and skunk bush (*Rhus trilobata*) occurring occasionally. Both these species are more common in edge habitats between grasslands and woodland or chaparral. In blue oak woodlands the understory is often composed of a mix of annual and perennial species, both native and introduced. Common species include blue wild rye (*Elymus glaucus*), California brome (*Bromus carinatus*), California melic (*Melica imperfecta*), and the invasive grass, hedgehog dogtail (*Cynosurus echinatus*).

**B. Valley needlegrass grassland:** This grassland association is a perennial grassland community dominated by one or more species of native bunchgrass in the genus *Nassella*. Three species of needlegrass occur on the Property, with purple needlegrass (*Nassella pulchra*) being the dominant component of the needlegrass grassland associations. On the Property, valley needlegrass grassland occurs more commonly on shallow, sandy, or gravelly soil types where it out-competes most of the Mediterranean annual species. The two grassland associations blend together in several areas, creating a mosaic with few distinct boundaries. We mapped two needlegrass grassland areas on the Property that were deemed significant because of the density of bunchgrasses present and the extent of their distribution. A bunchgrass density study has not been conducted, nor has a significance threshold been identified for the Property in regards to bunchgrass density and patch size.

A total of approximately 12 acres of needlegrass grassland habitat were mapped on the Property in 2006. Some small to medium-sized areas (<1 acre) of bunchgrasses occur on the Property that were not mapped independently. Valley needlegrass grassland is an important habitat type because it represents a native grassland plant association that was once common throughout the region but has

declined significantly due to agricultural and grazing practices and urban development. The California Department of Fish and Game (DFG) has designated valley needlegrass grassland a sensitive natural community. This designation provides some protections for the habitat under the California Environmental Quality Act. Paso Robles navarretia (*Navarretia jaredii*) is a CNPS List 4.3 species that occurs commonly in the needlegrass grassland habitat on site.

### 3.3.2 Foothill woodland

Foothill woodland communities are a variable complex of broad-leafed (typically oaks) and sometimes coniferous tree species that occur in mixed associations and single-species stands throughout foothill regions of the Coast Ranges, Transverse Ranges, Sierra Nevada, Cascades, and Klamath-Siskiyou Mountains. Several specific foothill woodland community types are present on the Property. Three special status plant species (Michael's rein orchid, umbrella larkspur, and small-flowered gypsum-loving larkspur) and eight special status animal species (Monterey dusky-footed woodrat, golden eagle, bald eagle, white-tailed kite, Cooper's hawk, sharp-shinned hawk, California legless lizard, and pallid bat) could occur in foothill woodland habitats on the Property.

- A. Mixed oak-grey pine woodland:** The dominant woodland type on the Property is a mixed association of native oak and pine trees. Blue oak (*Quercus douglasii*) is the most common oak species, occurring with valley oak (*Quercus lobata*), coast live oak (*Quercus agrifolia*), and grey pine (*Pinus sabiniana*) in variable density stands. Although grey pines occur sporadically in all areas of the Property, the largest mixed oak-pine woodlands occur in the southeast corner of the Property on the peninsula separating the confluence of the Nacimiento River with the Kavanaugh and Cantinas Creeks confluence with the lake. Canopy density is open (less than fifty percent cover) on ridgelines and south-facing slopes, to moderately dense (fifty to seventy-five percent cover) on northern aspects. The Shimmon-Dibble association soil type, occurring on 50 to 75 percent slopes, is the dominant soil type supporting mixed oak-grey pine woodland.
- B. Blue oak woodland:** Pure or nearly pure stands of blue oak woodland are limited in distribution on the Property. This woodland association is more common on mild slopes at the north end of the Property, notably on Dibble clay loam soils with slopes of 9 to 75 percent. It occurs in more xeric conditions than the following two types. Blue oak woodland is extensive on south-facing foothills of Tierra Redonda Mountain, adjacent to the Property. Canopy density varies depending upon slope, with steep slopes supporting dense woodlands and more open woodlands occurring on mild slopes. Understory vegetation is typically herbaceous, consisting of annual and perennial grasses, wildflowers, and some small shrubs.
- C. Valley oak woodland:** Designated a sensitive natural community by the CDFG, valley oak woodland is a vanishing habitat type in California due to its preference for deep alluvial soils on level terrain that provides, once the trees have been removed, ideal conditions for urban development, agriculture, and grazing. Very

limited in distribution on the Property, pure stands of valley oak woodland were mapped in two polygons totaling 10.5 acres (see Biological Resource Map in Section 7.0). Because the trees are tall with a high canopy, the understory of the valley oak woodland has historically been grazed. Typical species include weedy grasses (*Bromus diandrus*, *B. hordeaceus*, *Avena* spp.), thistles (*Silybum marianum*, *Carduus pycnocephalus*), and dock (*Rumex crispus*). A juvenile bald eagle was observed roosting in the valley oak woodland at the lake edge in June 2006. Special status plant species are not expected to occur in valley oak woodland habitat on site.

- D. Coast live oak woodland:** Preferring mesic sites, coast live oaks (*Quercus agrifolia*) are most common as riparian canopy in ephemeral and seasonal drainages on the Property. Some north slopes also support dense live oak stands, particularly in the northern end of the Property. Live oaks are notable in the Cantinas Creek drainage as a dense, intermittent canopy, and in small pockets on north slopes. Occasional solitary live oaks are present in grasslands and mixed oak woodland stands. Two California legless lizards, a special status species, were observed during our surveys in leaf litter beneath a solitary live oak tree in the Dibble clay loam soil type. White-tailed kites prefer live oaks for nesting sites, but were not observed on the Property in 2006 or 2011. Special status plant species are not expected to occur in coast live oak woodland habitat on site.

### 3.3.3 *Chaparral and scrub*

Small patches of chaparral and scrub habitats occur on slopes and drainage sides throughout the Property, with large chaparral-scrub communities being present on south-facing slopes composed of rock outcrops and soils of the Gaviota complex. These areas occur on the south side of the peninsula in the southeast portion of the Property and on a steep south-facing slope in the extreme northwestern corner of the Property. Five special status plant species (yellow-flowered eriastrum, pale-yellow layia, California spineflower, straight-awned spineflower, and Lemmon's jewel-flower) could occur in the chaparral and scrub habitats on the Property.

- A. Chaparral:** Chaparral communities may consist of single-species associations dominated by chamise (*Adenostoma fasciculatum*) or black sage (*Salvia mellifera*) in small patches, but are more typically mixed-species associations dominated by chamise, black sage, bush monkeyflower (*Mimulus aurantiacus*), big-berry manzanita (*Arctostaphylos glauca*), and coyote brush (*Baccharis pilularis*). Other common associates include chaparral whitethorn (*Ceanothus leucodermis*), mountain balm (*Eriodictyon tomentosum*), woolly blue curls (*Trichostema lanatum*), and skunk bush (*Rhus trilobata*). Grey pine and various oak species may also occur in some areas. Chaparral habitat on the Property is generally a dense cover of shrubby vegetation three to six feet in height. It is an important habitat for wildlife, providing cover for rodents and rabbits which attract larger predators. Wildlife trails are abundant through the chaparral vegetation on the Property.
- B. Scrub:** Composed of smaller shrubs such as coastal sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and deerweed

(*Lotus scoparius*), the scrub communities are more limited in distribution and in size. Patches of scrub habitat are often located between stands of grey pines on south-facing slopes with gravelly or sandy soils. Other shrub associates include locoweed (*Astragalus curtipes*) and giant woolly star (*Eriastrum densifolium*). The rare yellow-flowered eriastrum (*Eriastrum luteum*) was mapped in scrub habitat dominated by California buckwheat.

#### 3.3.4 Wetland

Wetland habitat is present in drainages, stock ponds, and grassy swales on the Property. A formal wetland delineation was not conducted as part of this study, and wetland habitat is not mapped in its entirety. Typical wetland areas are low-gradient sections of seasonal or ephemeral waterways that have accumulated sediments that support facultative or obligate wetland plant species such as common spikerush (*Eleocharis macrostachya*), umbrella sedge (*Cyperus eragrostis*), stream monkeyflower (*Mimulus guttatus*), loosestrife (*Lythrum hyssopifolium*), toadrush (*Juncus bufonius*), and others. Two man-made stock ponds are located within ephemeral drainages on the Property. The ponds are seasonal in most years but may hold water year-round during years of above average rainfall. Special status plant species are not expected to occur in wetlands on the Property. The ponds may provide appropriate habitat for four special status animal species (Western spadefoot toad, California red-legged frog, Southwestern pond turtle, and two-striped garter snake).

#### 3.3.5 Riparian

Riparian habitat is very limited on the Property. Because of the lack of perennial water most of the drainages on the Property are vegetated with upland shrubs or native oak trees. Red willow (*Salix laevigata*) is a native willow that typically becomes a large tree under good conditions, but which is present in shrub form in Cantinas and Kavanaugh Creeks near the lake. Most of Kavanaugh Creek that is part of the Property is seasonally inundated by high lake levels. When lake levels recede, the stream contains a silty mud bottom with various shrubs on the banks. Tall valley and coast live oaks on the upper banks provide the only canopy cover. Cantinas Creek is a seasonal stream with a mature live oak canopy. Moderately appropriate habitat is present for Abbott's bush mallow (*Malacothamnus abbottii*) in Kavanaugh Creek.

#### 3.3.6 Lacustrine

Habitats directly associated with lakes are called lacustrine systems. This habitat type includes the immediate shoreline and the water column within the lake. The lacustrine habitat on the Property changes in size depending on the level of Lake Nacimiento. This habitat supports fish, turtles, frogs, aquatic plants and aquatic invertebrates. Bald eagles obtain fish from the lake surface and shoreline, ducks, egrets, and herons forage along the shore, and diving birds such as Clark's grebe catch fish underwater. The lake shore provides a watering area for wildlife and cattle. When the lake is low, lacustrine habitat withdraws from the Property, leaving a largely barren zone up to the high lake level.

### 3.4 Plant List

Botanical surveys conducted in 2006, 2007 and 2011 identified 215 species, subspecies and varieties of vascular plants on the Property (Table 3). Three special status plant species were mapped on the Property.

TABLE 3. PLANT LIST. The 215 species of plants identified on the Property consist of 164 native species and 51 introduced species. Three special status plants were identified on the Property.

Scientific Name	Special Status	Origin	Common Name
<b>Ferns – 4 Species</b>			
<i>Adiantum jordanii</i>	None	Native	Maidenhair fern
<i>Cheilanthes cooperae</i>	None	Native	Cooper’s lipfern
<i>Pellaea andromedifolia</i>	None	Native	Cliff brake
<i>Pentagramma triangularis</i> ssp. <i>triangularis</i>	None	Native	Gold-back fern
<b>Trees - 9 Species</b>			
<i>Palm</i> sp.	None	Planted	Palm tree
<i>Pinus sabiniana</i>	None	Native	Grey pine, foothill pine
<i>Platanus</i> sp.	None	Planted	Plane tree
<i>Populus fremontii</i> ssp. <i>fremontii</i>	None	Native	Fremont cottonwood
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	None	Native	Coast live oak
<i>Quercus berberidifolia</i>	None	Native	Scrub oak
<i>Quercus douglasii</i>	None	Native	Blue oak
<i>Quercus lobata</i>	None	Native	Valley oak
<i>Ulmus</i> sp.	None	Planted	Elm
<b>Shrubs - 29 Species</b>			
<i>Adenostoma fasciculatum</i>	None	Native	Chamise
<i>Arctostaphylos glauca</i>	None	Native	Big-berry manzanita
<i>Artemisia californica</i>	None	Native	Coastal sagebrush
<i>Astragalus curtipes</i>	None	Native	Locoweed
<i>Baccharis pilularis</i>	None	Native	Coyote brush
<i>Ceanothus leucodermis</i>	None	Native	Chaparral whitethorn
<i>Eriastrum densifolium</i>	None	Native	Giant Woolly-star
<i>Ericameria linearifolia</i>	None	Native	Interior goldenbush
<i>Eriogonum elongatum</i>	None	Native	Elongate buckwheat
<i>Eriogonum fasciculatum</i>	None	Native	California buckwheat
<i>Heteromeles arbutifolia</i>	None	Native	Toyon
<i>Lotus scoparius</i>	None	Native	Deerweed

Scientific Name	Special Status	Origin	Common Name
<i>Lupinus albifrons</i>	None	Native	Bush lupine
<i>Marrubium vulgare</i>	None	Introduced	Horehound
<i>Mimulus aurantiacus</i>	None	Native	Bush monkeyflower
<i>Nerium oleander</i>	None	Introduced	Oleander
<i>Phoradendron villosum</i>	None	Native	Oak mistletoe
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	None	Native	Holly-leaf cherry
<i>Rhamnus californica</i> ssp. <i>californica</i>	None	Native	Coffeeberry
<i>Rhamnus ilicifolia</i>	None	Native	Holly-leaf redberry
<i>Rhus trilobata</i>	None	Native	Skunk bush
<i>Rosa californica</i>	None	Native	California rose
<i>Salix laevigata</i>	None	Native	Red willow
<i>Salvia mellifera</i>	None	Native	Black sage
<i>Sambucus mexicana</i>	None	Native	Blue elderberry
<i>Solanum xanti</i>	None	Native	Purple nightshade
<i>Symphoricarpos mollis</i>	None	Native	Snowberry
<i>Toxicodendron diversilobum</i>	None	Native	Poison oak
<i>Trichostema lanatum</i>	None	Native	Woolly blur-curls
<b>Herbs - 142 Species</b>			
<i>Achillea millefolium</i>	None	Native	Yarrow
<i>Achyrachaena mollis</i>	None	Native	Blow wives
<i>Agoseris grandiflora</i>	None	Native	Giant dandelion
<i>Agoseris heterophylla</i>	None	Native	Annual mountain dandelion
<i>Allium crispum</i>	None	Native	Crinkled onion
<i>Amaranthus californicus</i>	None	Native	California amaranth
<i>Amsinckia menziesii</i> var. <i>menziesii</i>	None	Native	Common fiddleneck
<i>Anagallis arvensis</i>	None	Introduced	Scarlet pimpernel
<i>Anthriscus caucalis</i>	None	Introduced	Bur-chevil
<i>Arceuthobium occidentale</i>	None	Native	Foothill pine dwarf mistletoe
<i>Asclepias eriocarpa</i>	None	Native	Indian milkweed
<i>Asclepias fascicularis</i>	None	Native	Narrow-leaved milkweed
<i>Bloomeria crocea</i>	None	Native	Golden stars
<i>Brodiaea terrestris</i>	None	Native	Brodiaea
<i>Calochortus albus</i>	None	Native	Fairy lantern
<i>Calochortus luteus</i>	None	Native	Yellow mariposa lily
<i>Calochortus splendens</i>	None	Native	Lilac mariposa lily

Scientific Name	Special Status	Origin	Common Name
<i>Calochortus venustus</i>	None	Native	Butterfly mariposa lily
<i>Calystegia malacophylla</i>	None	Native	Morning glory
<i>Camissonia</i> sp.	None	Native	Suncup
<i>Carduus pycnocephalus</i>	None	Introduced	Italian thistle
<i>Castilleja attenuata</i>	None	Native	Slender owl's clover
<i>Castilleja densiflora</i> ssp. <i>densiflora</i>	None	Native	Owl's clover
<i>Castilleja densiflora</i> ssp. <i>gracilis</i>	None	Native	Dense-flower Indian paintbrush
<i>Castilleja exserta</i> ssp. <i>exserta</i>	None	Native	Purple owl's clover
<i>Castilleja foliolosa</i>	None	Native	Woolly Indian paintbrush
<i>Centaurea melitensis</i>	None	Introduced	Tocolote
<i>Centaurea solstitialis</i>	None	Introduced	Yellow star thistle
<i>Cerastium glomeratum</i>	None	Introduced	Mouse-eared chickweed
<i>Chaenactis glabriuscula</i> ssp. <i>lanatum</i>	None	Native	Yellow pincushion
<i>Chamaesyce serpyllifolia</i> ssp. <i>hirtula</i>	None	Native	Thyme-leafed spurge
<i>Chamomilla suaveolens</i>	None	Introduced	Pineapple weed
<i>Chenopodium californicum</i>	None	Native	Pigweed
<i>Chlorogalum pomeridianum</i> var. <i>pomeridianum</i>	None	Native	Amole lily
<i>Chorizanthe membranacea</i>	None	Native	Pink spineflower
<i>Chorizanthe obovata</i>	None	Native	Spoon-sepal spineflower
<i>Cirsium occidentale</i> var. <i>californicum</i>	None	Native	California thistle
<i>Cirsium vulgare</i>	None	Introduced	Bull thistle
<i>Clarkia cylindrica</i>	None	Native	Clarkia
<i>Clarkia purpurea</i> ssp. <i>purpurea</i>	None	Native	Wine cups
<i>Clarkia purpurea</i> ssp. <i>quadrivulnera</i>	None	Native	Four spot
<i>Clarkia speciosa</i> ssp. <i>speciosa</i>	None	Native	Clarkia
<i>Clarkia unguiculata</i>	None	Native	Elegant clarkia
<i>Claytonia perfoliata</i>	None	Native	Miner's lettuce
<i>Collinsia heterophylla</i>	None	Native	Chinese houses
<i>Cryptantha muricata</i>	None	Native	Cryptantha
<i>Cuscuta californica</i>	None	Native	California dodder
<i>Cyperus eragrostis</i>	None	Native	Umbrella sedge
<i>Daucus pusillus</i>	None	Native	Rattlesnake weed
<i>Delphinium parryi</i> ssp. <i>parryi</i>	None	Native	Parry's larkspur

Scientific Name	Special Status	Origin	Common Name
<i>Dichelostemma capitatum</i>	None	Native	Blue dicks
<i>Eleocharis macrostachya</i>	None	Native	Common spikerush
<i>Epilobium canum</i>	None	Native	California fuschia
<i>Eremocarpus setigerus</i>	None	Native	Dove weed
<i>Eriastrum luteum</i>	List 1B.2	Native	Yellow-flowered eriastrum
<i>Erigeron foliosus</i> var. <i>foliosus</i>	None	Native	Leafy daisy
<i>Eriodictyon tomentosum</i>	None	Native	Mountain Balm
<i>Eriogonum nudum</i>	None	Native	Naked buckwheat
<i>Eriogonum roseum</i>	None	Native	Wand buckwheat
<i>Eriogonum angulosum</i>	None	Native	Anglestem buckwheat
<i>Eriophyllum confertiflorum</i>	None	Native	Golden yarrow
<i>Erodium botrys</i>	None	Introduced	Fillaree
<i>Erodium cicutarium</i>	None	Introduced	Redstem filaree
<i>Erodium moschatum</i>	None	Introduced	Greenstem filaree
<i>Filago gallica</i>	None	Introduced	Herba impia
<i>Galium andrewsii</i>	None	Native	Phlox-leaved bedstraw
<i>Galium aparine</i>	None	Native	Goose grass
<i>Galium parisiense</i>	None	Introduced	Wall bedstraw
<i>Geranium dissectum</i>	None	Native	Geranium
<i>Geranium molle</i>	None	Introduced	Geranium
<i>Glinus lotoides</i>	None	Introduced	Lotus sweetjuice
<i>Gnaphalium californicum</i>	None	Native	California everlasting
<i>Hemizonia kelloggii</i>	None	Native	Kellogg's tarweed
<i>Heterotheca grandiflora</i>	None	Introduced	Telegraph weed
<i>Heterotheca sessiliflora</i>	None	Native	Goldenaster
<i>Hoita macrostachya</i>	None	Native	Leather root
<i>Hypochaeris glabra</i>	None	Introduced	Smooth cat's ear
<i>Juncus bufonius</i>	None	Native	Toadrush
<i>Keckiella breviflora</i>	None	Native	Gaping penstemon
<i>Lastarriaea coriacea</i>	None	Native	Leather spineflower
<i>Lasthenia californica</i>	None	Native	Common goldfields
<i>Layia glandulosa</i>	None	Native	Tidy tips
<i>Lemna gibba</i>	None	Native	Duckweed
<i>Lessingia filaginifolia</i>	None	Native	California aster
<i>Lessingia glandulifera</i> var. <i>pectinata</i>	None	Native	Valley lessingia

Scientific Name	Special Status	Origin	Common Name
<i>Linanthus liniflorus</i>	None	Native	Narrowflower flaxflower
<i>Linanthus parviflorus</i>	None	Native	Baby-stars
<i>Lotus humistratus</i>	None	Native	Hill lotus
<i>Lotus purshianus</i> var. <i>purshianus</i>	None	Native	Spanish clover
<i>Lotus strigosus</i>	None	Native	Bishop lotus
<i>Lupinus benthamii</i>	None	Native	Spider lupine
<i>Lupinus formosus</i>	None	Native	Showy lupine
<i>Lupinus microcarpus</i>	None	Native	Chick lupine
<i>Lupinus nanus</i>	None	Native	Sky blue lupine
<i>Lythrum hyssopifolium</i>	None	Introduced	Loosestrife
<i>Medicago polymorpha</i>	None	Introduced	California bureclover
<i>Melilotus indica</i>	None	Introduced	Annual sweetclover
<i>Micropus californicus</i> var. <i>californicus</i>	None	Native	Slender cottonweed
<i>Mimulus guttatus</i>	None	Native	Stream monkeyflower
<i>Mollugo verticillata</i>	None	Introduced	Carpet-weed
<i>Mucronea californica</i>	List 4.2	Native	California spineflower
<i>Mucronea perfoliata</i>	None	Native	Perfoliate spineflower
<i>Mulla maritima</i>	None	Native	Common muilla
<i>Nasturtium officinale</i>	None	Native	Common watercress
<i>Navarretia atractyloides</i>	None	Native	Navarretia
<i>Navarretia jaredii</i>	List 4.3	Native	Paso Robles navarretia
<i>Nicotiana acuminata</i> var. <i>multiflora</i>	None	Introduced	Tobacco
<i>Paeonia californica</i>	None	Native	California peony
<i>Penstemon centranthifolius</i>	None	Native	Scarlet bugler
<i>Phacelia distans</i>	None	Native	Phacelia
<i>Plagiobothrys canescens</i>	None	Native	Popcorn flower
<i>Phacelia imbricata</i>	None	Native	Phacelia
<i>Phlox gracilis</i>	None	Native	Slender phlox
<i>Phyla nodiflora</i>	None	Native	Common lippia
<i>Pogogyne serpylloides</i>	None	Native	Pogogyne
<i>Potamogeton foliosus</i> var. <i>foliosus</i>	None	Native	Pondweed
<i>Psilocarphus tenellus</i>	None	Native	Woolly marbles
<i>Ranunculus californicus</i>	None	Native	California buttercup
<i>Rorippa curvisiliqua</i>	None	Native	Water cress
<i>Rorippa nasturtium-aquaticum</i>	None	Native	Watercress

Scientific Name	Special Status	Origin	Common Name
<i>Rumex crispus</i>	None	Introduced	Curly dock
<i>Rumex salicifolius</i>	None	Native	Willow dock
<i>Salvia columbariae</i>	None	Native	Chia sage
<i>Salvia spathacea</i>	None	Native	Hummingbird sage
<i>Sanicula crassicaulis</i>	None	Native	Sanicle
<i>Satureja douglasii</i>	None	Native	Yerba buena
<i>Silene gallica</i>	None	Introduced	Catchfly
<i>Sisyrinchium bellum</i>	None	Native	Blue-eyed grass
<i>Solidago californica</i>	None	Native	California goldenrod
<i>Soliva sessilis</i>	None	Introduced	Burweed
<i>Sonchus oleraceus</i>	None	Introduced	Common sow thistle
<i>Stephanomeria virgata</i>	None	Native	Wire-lettuce
<i>Torilis arvensis</i>	None	Introduced	Hedge parsley
<i>Trichostema lanceolatum</i>	None	Native	Vinegar weed
<i>Trifolium gracilentum</i>	None	Native	Pinpoint clover
<i>Trifolium hirtum</i>	None	Introduced	Rose clover
<i>Trifolium microcephalum</i>	None	Native	Miniature clover
<i>Trifolium willdenovii</i>	None	Native	Tomcat clover
<i>Tropidocarpum gracile</i>	None	Native	Dobiepod
<i>Verbena lasiostachys</i>	None	Native	Verbena
<i>Vicia americana</i>	None	Native	American vetch
<i>Viola pedunculata</i>	None	Native	Johnny jump-up
<b>Grasses - 31 Species</b>			
<i>Avena barbata</i>	None	Introduced	Slender wild oat
<i>Avena fatua</i>	None	Introduced	Wild oat
<i>Brachypodium distachyon</i>	None	Introduced	Brachypodium
<i>Briza minor</i>	None	Introduced	Quaking grass
<i>Bromus carinatus</i> ssp. <i>carinatus</i>	None	Native	California brome
<i>Bromus diandrus</i>	None	Introduced	Ripgut brome
<i>Bromus hordeaceus</i>	None	Introduced	Soft chess brome
<i>Bromus madritensis</i> ssp. <i>rubens</i>	None	Introduced	Red top brome
<i>Cynodon dactylon</i>	None	Introduced	Bermuda grass
<i>Cynosurus echinatus</i>	None	Introduced	Hedgehog dogtail
<i>Dactylis glomerata</i>	None	Introduced	Orchard grass
<i>Deschampsia danthonioides</i>	None	Native	Annual hairgrass

Scientific Name	Special Status	Origin	Common Name
<i>Distichlis spicata</i>	None	Native	Saltgrass
<i>Elymus elymoides</i>	None	Native	Squirrel-tail
<i>Elymus glaucus</i>	None	Native	Blue wildrye
<i>Gastridium ventricosum</i>	None	Introduced	Nit grass
<i>Hordeum brachyantherum</i>	None	Native	Meadow barley
<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	None	Introduced	Mediterranean barley
<i>Hordeum murinum</i>	None	Introduced	Foxtail barley
<i>Hordeum vulgare</i>	None	Introduced	Cultivated barley
<i>Leymus triticoides</i>	None	Native	Creeping wild rye
<i>Lolium multiflorum</i>	None	Introduced	Italian ryegrass
<i>Melica imperfecta</i>	None	Native	Melic
<i>Muhlenbergia rigens</i>	None	Native	Deergrass
<i>Nassella cernua</i>	None	Native	Slender needlegrass
<i>Nassella lepida</i>	None	Native	Slender needlegrass
<i>Nassella pulchra</i>	None	Native	Purple needlegrass
<i>Phalaris paradoxa</i>	None	Introduced	Hood canary grass
<i>Poa secunda</i> ssp. <i>secunda</i>	None	Native	One-sided bluegrass
<i>Polypogon monspeliensis</i>	None	Introduced	Annual beardgrass
<i>Vulpia myuros</i>	None	Introduced	Rattail fescue

### 3.5 Wildlife List

More than 169 animal species have the potential to occur on the Property (Table 4). These include at least 11 fish, 8 amphibians, 17 reptiles, 103 birds, and 29 mammals. Several rodent species (e.g., California vole, harvest mouse, etc.) are expected to be residents on the Property; however, no trapping was conducted as part of this study.

The grasslands provide foraging habitat for raptors and predators, including golden eagle, red-tail hawk, red-shouldered hawk, white-tailed kite, American kestrel, fox, coyote, bobcat, and mountain lion. Dense chaparral provides cover for rodents, lagomorphs, and reptiles. Amphibians including chorus frog, bullfrog, and western toad will use temporary and permanent water sources on the ranch. Raccoon, opossum, and striped skunk are likely to forage in ephemeral drainages and woodland areas, and mule deer tracks are abundant on roads and trails throughout the Property. Lake Nacimiento harbors many species of introduced fish, including blue gill, spotted bass, carp, and rainbow trout. Bald eagles nest at Lake Nacimiento and feed on fish in the lake and roost in trees on the Property shoreline. Birds are common in all habitats in the area. Fifty-nine species of birds were observed on the Property. Numerous large raptor nests were observed in oak trees on Property, however none of these nests are from bald eagles.

TABLE 4. WILDLIFE LIST. At least 169 animal species have the potential to occur on the Property. The Special Status column indicates listing status of the organism under the Federal Endangered Species Act, the State Endangered Species Act, or by the CDFG. Species observed on the Property during our surveys are designated by the check symbol (✓) in the fourth column.

Common Name	Scientific Name	Special Status	Found on the Property	Habitat Type
<b>Fish - 11 species</b>				
Sacramento Sucker	<i>Catostomus occidentalis</i>	None		Rivers, creeks, lakes, ponds
Carp	<i>Cyprinus carpio</i>	None	✓	Rivers, creeks, lakes, ponds
Mosquito Fish	<i>Gambusia affinis</i>	None		Rivers, creeks, lakes, ponds
Three-spine Stickleback	<i>Gasterosteus aculeatus</i>	None		Rivers, creeks, lakes, ponds
Black Bullhead Catfish	<i>Ictalurus melas</i>	None		Rivers, creeks, lakes, ponds
Bluegill	<i>Lepomis macrochirus</i>	None	✓	Rivers, creeks, lakes, ponds
Green Sunfish	<i>Lepomis cyanellus</i>	None		Rivers, creeks, lakes, ponds
White Bass	<i>Marone chrysops</i>	None		Rivers, creeks, lakes, ponds
Spotted Bass	<i>Micropterus punctulatus</i>	None	✓	Rivers, creeks, lakes, ponds
Rainbow Trout	<i>Oncorhynchus mykiss</i>	None		Rivers, creeks, lakes, ponds
Crappie	<i>Pomoxis</i> sp.	None		Rivers, creeks, lakes, ponds

Common Name	Scientific Name	Special Status	Found on the Property	Habitat Type
<b>Amphibians - 8 species</b>				
Arboreal Salamander	<i>Aneides lugubris</i>	None		Oak savanna
Black-bellied Slender Salamander	<i>Batrachoseps nigriventris</i>	None		Oak woodlands, moist areas, found under cardboard on the site
Western Toad	<i>Bufo boreas halophilus</i>	None	✓	Grassland, woodland
Monterey Ensatina	<i>Ensatina eschscholzi</i>	None		Riparian, oak woodlands, grasslands
Pacific Chorus Frog	<i>Pseudacris regilla</i>	None	✓	Many habitats near water
Bullfrog	<i>Rana catesbeiana</i>	None	✓	Perennial streams, ponds
California Red-legged Frog	<i>Rana aurora draytonii</i>	FT <sup>1</sup>		Streams, creeks, and ponds
Western Spadefoot Toad	<i>Spea hammondi</i>	SSC <sup>2</sup>		Grassland habitat with seasonal pools
<b>Reptiles - 17 species</b>				
California Legless Lizard	<i>Anniella pulchra</i>	SSC	✓	Sandy soils in dunes, woodlands, coastal scrub
California Whiptail	<i>Aspidoscelis tigris munda</i>	None	✓	Dry, rocky areas
Southwestern Pond Turtle	<i>Clemmys marmorata pallida</i>	SSC	✓	Lakes, ponds, streams
Sharp-tailed Snake	<i>Contia tenuis</i>	None		Oak-pine woodland
Northern Pacific Rattlesnake	<i>Crotalus oreganus oreganus</i>	None		Dry, rocky habitats
Ringneck Snake	<i>Diadophis punctatus</i>	None		Woodlands, grasslands, chaparral
California Alligator Lizard	<i>Elgaria multicarinata multicarinata</i>	None	✓	Open grassland, woodland, chaparral
Western Skink	<i>Eumeces skiltonianus</i>	None		Woodland, grassland, chaparral
California Kingsnake	<i>Lampropeltis getula californiae</i>	None		Woodland, grassland, streams
California Striped Racer	<i>Masticophis lateralis lateralis</i>	None		Chaparral, brush habitats
Coast Horned Lizard	<i>Phrynosoma coronatum frontale</i>	SSC		Dune scrub, alkali scrub, chaparral, grasslands
Pacific Gopher Snake	<i>Pituophis catenifer catenifer</i>	None	✓	Woodland, grassland

<sup>1</sup> FT = Federally Threatened

<sup>2</sup> SSC = California Species of Special Concern

Common Name	Scientific Name	Special Status	Found on the Property	Habitat Type
Western Fence Lizard	<i>Sceloporus occidentalis</i>	None	✓	Wide range
Coast Garter Snake	<i>Thamnophis elegans terrestris</i>	None		Many habitats near water
Two-striped Garter Snake	<i>Thamnophis hammondi</i>	SSC		Rocky streams, ponds, wetlands.
Valley Garter Snake	<i>Thamnophis sirtalis fitchii</i>	None		Many habitats near water
Side-blotched Lizard	<i>Uta stansburiana</i>	None	✓	Dry habitats
<b>Birds - 104 species</b>				
Cooper's Hawk	<i>Accipiter cooperii</i>	SSC	✓	Woodlands
Sharp-shinned Hawk	<i>Accipiter striatus</i>	SSC	✓	Oak, riparian woodland
Spotted Sandpiper	<i>Actitis macularia</i>	None	✓	Shorelines
Clark's Grebe	<i>Aechmophorus clarkia</i>	None	✓	Aquatic habitats
Western Grebe	<i>Aechmophorus occidentalis</i>	None	✓	Aquatic habitats
White-throated Swift	<i>Aeronautes saxatilis</i>	None	✓	Nests in cliffs
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	None		Marshes, fields
Mallard	<i>Anas platyrhynchos</i>	None	✓	Aquatic habitats
American Pipit	<i>Anthus rubescens</i>	None		Fields, beaches, etc.
Western Scrub Jay	<i>Aphelocoma californica</i>	None	✓	Oak and riparian woodlands
Golden Eagle	<i>Aquila chrysaetos</i>	Fully Protected <sup>3</sup> BGEPA <sup>4</sup>	✓	Mountainous areas, hunts over open plains, fields, valleys
Great Egret	<i>Ardea alba</i>	None		Water habitats, grassland
Great Blue Heron	<i>Ardea herodias</i>	None	✓	Water habitats, grassland
Cedar Waxwing	<i>Bombycella cedrorum</i>	None	✓	Variety habitats with berry source
Great Horned Owl	<i>Bubo virginianus</i>	None		Varied habitats
Red-tailed Hawk	<i>Buteo jamaicensis</i>	None	✓	Open, semi-open country
Red-shouldered Hawk	<i>Buteo lineatus</i>	None	✓	Oak and riparian woodlands
Green Heron	<i>Butorides virescens</i>	None	✓	Water habitats
California Quail	<i>Callipepla californica</i>	None	✓	Oak, riparian woodlands
Anna's Hummingbird	<i>Calypte anna</i>	None		Oak, riparian woodland, scrub

<sup>3</sup> Refer to Section 3.6.2 for a discussion of Fully Protected species.

<sup>4</sup> Bald and Golden Eagle Protection Act

Common Name	Scientific Name	Special Status	Found on the Property	Habitat Type
Lesser Goldfinch	<i>Carduelis psaltria</i>	None	✓	Riparian, oak woodlands
American Goldfinch	<i>Carduelis tristis</i>	None		Weedy fields, woodlands
House Finch	<i>Carpodacus mexicanus</i>	None	✓	Wide habitat range
Purple Finch	<i>Carpodacus purpureus</i>	None		Woodlands, urban areas
Turkey Vulture	<i>Cathartes aura</i>	None	✓	Open country, oak woodlands
Hermit Thrush	<i>Catharus guttatus</i>	None		Moist woodlands
Belted Kingfisher	<i>Cerle alcyon</i>	None	✓	Water habitats
Wrentit	<i>Chamaea fasciata</i>	None		Chaparral
Killdeer	<i>Charadrius vociferous</i>	None	✓	Mud flats, stream banks
Lark Sparrow	<i>Chondestes grammacus</i>	None		Woodland edges
Northern Flicker	<i>Colaptes auratus</i>	None	✓	Woodlands
Band-tailed Pigeon	<i>Columba fasciata</i>	None	✓	Woodlands, urban trees
Rock Dove	<i>Columba livia</i>	None		Urban areas
Western Wood Pewee	<i>Contopus sordidulus</i>	None		Riparian woodlands
American Crow	<i>Corvus brachyrhynchos</i>	None	✓	Open oak, riparian woodland,
Common Raven	<i>Corvus corax</i>	None	✓	Woodlands, chaparral
Stellar's Jay	<i>Cyanocitta stelleri</i>	None		Pine and oak woodlands
Yellow-rumped Warbler	<i>Dendroica coronata</i>	None	✓	Riparian, oak woodlands
Townsend's Warbler	<i>Dendroica townsendi</i>	None	✓	Riparian, oak woodlands
White-tailed Kite	<i>Elanus leucurus</i>	SSC		Nests in dense live oaks
Pacific-slope Flycatcher	<i>Empidonax difficilis</i>	None		Riparian, oak woodlands
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>	None	✓	Open habitats
American Kestrel	<i>Falco sparverius</i>	None	✓	Open, semi-open country
American Coot	<i>Fulica americana</i>	None	✓	Ponds, lakes
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SE <sup>5</sup>	✓	Near water
Barn Swallow	<i>Hirundo rustica</i>	None		Open country, farmyards
Bullock's Oriole	<i>Icterus bullockii</i>	None	✓	Variety of habitats with trees and nectar source
Varied Thrush	<i>Ixoreus naevius</i>	None	✓	Woodlands

<sup>5</sup> SE = State Endangered

Common Name	Scientific Name	Special Status	Found on the Property	Habitat Type
Dark-eyed Junco	<i>Junco hyemalis</i>	None	✓	Oak woodland
Acorn Woodpecker	<i>Melanerpes formicivorus</i>	None	✓	Oak woodland
Wild Turkey	<i>Meleagris gallopavo merriami</i>	None	✓	Woodlands
Song Sparrow	<i>Melospiza melodia</i>	None		Oak and Riparian woodland
Common Merganser	<i>Mergus merganser</i>	None	✓	Lakes, rivers, sloughs
Northern Mockingbird	<i>Mimus polyglottos</i>	None		Riparian, chaparral and woodlands
Brown-headed Cowbird	<i>Molothrus ater</i>	None	✓	Rural areas, ranches
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>	None	✓	Open areas near oaks
Western Screech-owl	<i>Otus kennicottii</i>	None		Oak woodlands
Ruddy Duck	<i>Oxyura jamaicensis</i>	None		Lakes, ponds
Oak Titmouse	<i>Parus inornatus</i>	None	✓	Oak woodlands
House Sparrow	<i>Passer domesticus</i>	None		Urban
Savanna Sparrow	<i>Passerculus sandwichensis</i>	None		Open habitats, marshes, grasslands
Lazuli Bunting	<i>Passerina amoena</i>	None		Mixed woodlands, chaparral
Blue Grosbeak	<i>Passerina caerulea</i>	None		Woodland edges, streams
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	None		Urban; open areas near water
Phainopepla	<i>Phainopepla nitens</i>	None		Dry woodlands
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	None	✓	Aquatic habitats
Yellow-billed Magpie	<i>Pica nuttalli</i>	None	✓	Oak savanna
Nuttall's Woodpecker	<i>Picoides nuttallii</i>	None	✓	Oak woodland, savanna
Downy Woodpecker	<i>Picoides pubescens</i>	None		Riparian, oak woodlands
Hairy Woodpecker	<i>Picoides villosus</i>	None		Woodlands
California Towhee	<i>Pipilo crissalis</i>	None	✓	Brushy habitats
Spotted Towhee	<i>Pipilo erythrophthalmus</i>	None		Dense brushy areas
Western Tanager	<i>Piranga ludoviciana</i>	None		Woodlands
Chestnut-backed Chickadee	<i>Poecile hudsonica</i>	None		Mixed woods
Pie-billed Grebe	<i>Podilymbus podiceps</i>	None	✓	Aquatic habitats
Blue-grey Gnatcatcher	<i>Poliophtila caerulea</i>	None		Chaparral

Common Name	Scientific Name	Special Status	Found on the Property	Habitat Type
Bushtit	<i>Psaltriparus minimus</i>	None	✓	Oak, riparian, chaparral, scrub
Ruby-crowned Kinglet	<i>Regulus calundula</i>	None	✓	Oak and riparian woodlands
Rock Wren	<i>Salpinctes obsoletus</i>	None		Rocky habitats
Black Phoebe	<i>Sayornis nigricans</i>	None	✓	Near water
Say's Phoebe	<i>Sayornis saya</i>	None	✓	Open country, grassland
Rufous Hummingbird	<i>Selasphorus rufus</i>	None		Berry tangles, shrubs, conifers in N. California.
Western Bluebird	<i>Sialia mexicana</i>	None	✓	Riparian woodland, ranch land
White-breasted Nuthatch	<i>Sitta carolinensis</i>	None	✓	Oak savanna
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	None		Riparian, lakes
Western Meadowlark	<i>Sturnella neglecta</i>	None	✓	Grasslands
European Starling	<i>Sturnus vulgaris</i>	None	✓	Agricultural, urban
Tree Swallow	<i>Tachycineta bicolor</i>	None		Wooded habitats, water
Violet-green Swallow	<i>Tachycineta thalassina</i>	None	✓	Woodland habitats
Bewick's Wren	<i>Thryomanes bewickii</i>	None	✓	Shrubby areas
California Thrasher	<i>Toxostoma redivivum</i>	None		Chaparral
House Wren	<i>Troglodytes aedon</i>	None		Shrubby areas
American Robin	<i>Turdus migratorius</i>	None	✓	Streamsides, woodlands
Western Kingbird	<i>Tyrannus verticalis</i>	None	✓	Nests in trees, hunts in grasslands
Barn Owl	<i>Tyto alba</i>	None		Agricultural, woodlands
Orange-crowned Warbler	<i>Vermivora celata</i>	None		Oak, riparian woodlands
Warbling Vireo	<i>Vireo gilvus</i>	None		Oak, riparian woodlands
Hutton's Vireo	<i>Vireo huttonii</i>	None		Oak, riparian woodlands
Wilson's Warbler	<i>Wilsonia pusilla</i>	None		Oak, riparian woodlands
Mourning Dove	<i>Zenaida macroura</i>	None	✓	Open and semi-open area
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	None	✓	Shrubby, weedy areas
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	None	✓	Shrubby, weedy areas
<b>Mammals - 29 species</b>				
Pallid Bat	<i>Antrozous pallidus</i>	SSC		Riparian, woodland, urban

Common Name	Scientific Name	Special Status	Found on the Property	Habitat Type
Coyote	<i>Canus latrans</i>	None	✓	Open woodlands, prairies, brushy areas, wide ranging.
California Pocket Mouse	<i>Chaetodipus californicus</i>	None		Chaparral, brush habitats
Opossum	<i>Didelphis marsupialis</i>	None		Woodlands, streams
Merriam's Chipmunk	<i>Eutamias merriami</i>	None	✓	Brushy habitats
Feral Cat	<i>Felis catus</i>	None		Varied
Mountain Lion	<i>Felis concolor</i>	None	✓	Woodlands
Black-tailed Jackrabbit	<i>Lepus californicus</i>	None		Grasslands
Bobcat	<i>Lynx rufus</i>	None		Chaparral and woodlands
Striped Skunk	<i>Mephitis mephitis</i>	None		Mixed woods, brush, semi-open country
California Vole	<i>Microtus californicus</i>	None		Grassland meadows
Long-tailed Weasel	<i>Mustela frenata</i>	None		Grasslands
California Myotis	<i>Myotis californicus</i>	None		Tunnels, hollow trees, crevices
Monterey Dusky-footed Woodrat	<i>Neotoma macrotis luciana</i>	SSC	✓	Oak, riparian woodlands, chaparral
Mule Deer	<i>Odocoileus hemionus</i>	None	✓	Many habitats
Brush Mouse	<i>Peromyscus boylei</i>	None		Shrubby habitats
California Mouse	<i>Peromyscus californicus</i>	None		Oak woodland, chaparral
Deer Mouse	<i>Peromyscus maniculatus</i>	None	✓	All dry land habitats
Raccoon	<i>Procyon lotor</i>	None	✓	Streams, lakes, rock cliffs, dens in trees
Western Harvest Mouse	<i>Reithrodontomys megalotis</i>	None		Grassland, dense vegetation near water
Western Gray Squirrel	<i>Sciurus griseus</i>	None	✓	Oak, conifer woodlands
Ornate Shrew	<i>Sorex ornatus</i>	None		Streamsides, woodlands
California Ground Squirrel	<i>Spermophilus beecheyi</i>	None	✓	Grasslands
Spotted Skunk	<i>Spirogale putorius</i>	None		Woodlands
Wild Boar	<i>Sus scrofa</i>	None	✓	Woodlands
Desert Cottontail	<i>Sylvilagus auduboni</i>	None	✓	Brushy areas, meadows
Valley Pocket Gopher	<i>Thomomys bottae</i>	None		Variety of habitats
Gray Fox	<i>Urocyon cinereoargenteus</i>	None	✓	Chaparral
Red Fox	<i>Vulpes fulva</i>	None		Forest and open country

### **3.6 Special Status Plants and Animals**

The CNDDDB and the CNPS On-line Inventory of Rare and Endangered Plants of California contain records for 34 special status species within the designated search area. The search area included all USGS 7.5 minute quadrangles within five miles of the Property: Bryson, Tierra Redonda Mountain, Pebblestone Shut-in, and Lime Mountain. Twenty additional special status species were added to the list from our knowledge of the area. These species are marked with an asterisk (\*). Appropriate habitat and soil conditions are present on the Property for 21 special status plants and 12 special status animals (Tables 5 and 6). Figure 4 in Section 7.0 depicts the current GIS data for special status species and critical habitat mapped in the vicinity of the Property by the CNDDDB and the U.S. Fish and Wildlife Service (USFWS). A Biological Resource Map indicating locations of habitat types and special status species detected on the Property is provided in Section 7.0.

#### *3.6.1 Introduction to CNPS lists*

Plant species are considered rare when their distribution is confined to localized areas, when there is a threat to their habitat, when they are declining in abundance, or are threatened in a portion of their range. The listing categories range from species with a low threat (List 4) to species that are presumed extinct (List 1A). The plants of List 1B are rare throughout their range. All but a few species are endemic to California. All of them are judged to be vulnerable under present circumstances, or to have a high potential for becoming vulnerable.

#### *3.6.2 Introduction to CNDDDB definitions*

"Special Plants" is a broad term used to refer to all the plant taxa inventoried by the CNDDDB, regardless of their legal or protection status (CDFG June 2011). Special plants include vascular plants and high priority bryophytes (mosses, liverworts, and hornworts).

"Special Animals" is a general term that refers to all of the animal taxa inventoried by the CNDDDB, regardless of their legal or protection status (CDFG June 2011). The Special Animals list is also referred to by the CDFG as the list of "species at risk" or "special status species". These taxa may be listed or proposed for listing under the California and/or Federal Endangered Species Acts, but they may also be species deemed biologically rare, restricted in range, declining in abundance, or otherwise vulnerable.

Each species included on the Special Animals list has a corresponding Global and State Rank. This ranking system utilizes a numbered hierarchy from one to five following the Global (G-rank) or State (S-rank) category. The threat level of the organism decreases with an increase in the rank number (1=Critically Imperiled, 5=Secure). In some cases where an uncertainty exists in the designation, a question mark (?) is placed after the rank. More information is available at [www.natureserve.org](http://www.natureserve.org).

Animals listed as California Species of Special Concern (SSC) may or may not be listed under California or Federal Endangered Species Acts. They are considered rare or declining in abundance in California. The Special Concern designation is intended to provide the Department of Fish and Game, biologists, land planners and managers with lists of species that require special consideration during the planning process in order to avert continued population declines and potential costly listing under federal and state

endangered species laws. For many species of birds, the primary emphasis is on the breeding population in California. For some species that do not breed in California but winter here, emphasis is on wintering range. The SSC designation thus may include a comment regarding the specific protection provided such as nesting or wintering.

Animals listed as Fully Protected are those species considered by CDFG as rare or faced with possible extinction. Most, but not all, have subsequently been listed under the California Endangered Species Act (CESA) or the Federal Endangered Species Act (FESA). Fully Protected species may not be taken or possessed at any time and no provision of the CDFG code authorizes the issuance of permits or licenses to take any Fully Protected species.

### *3.6.3 Special status species lists*

Tables 5 and 6 list all 54 special status species reported to occur within at least five miles of the Property. Federal and state status, global and state rank, CNPS listing status (plants), and CDFG designation (animals) for each species are given. Typical blooming period, habitat preference, potential habitat on site, whether or not the species was observed on the Property, and the effect of the proposed activity are also provided.

TABLE 5. SPECIAL STATUS PLANT LIST. Forty-one special status plants reported from the region are listed. Potentially suitable habitat is present on the Property for 21 special status plant species.

	<b>Common and Scientific Names</b>	<b>Fed/State Status Global/State Rank CNPS List</b>	<b>Blooming Period</b>	<b>Habitat Preference</b>	<b>Potential Habitat?</b>	<b>Detected on Property?</b>	<b>Effect of Activity</b>
1.	<b>Arroyo de la Cruz Manzanita</b> <i>Arctostaphylos cruzensis</i>	None/none G2/S2.2 List 1B.2	December - March	Sandy bluffs; <150 m. c CCo (s Monterey, nw SLO Counties)	No. The Property is outside the known range of this species.	No	No Effect
2.	<b>Santa Lucia Manzanita</b> <i>Arctostaphylos luciana</i>	None/none G2/S2.2 List 1B.2	February - March	Shale outcrops, slopes, chaparral, 500-700 m. Southeast of Cuesta Pass	No. Appropriate soil and habitat type not found on the Property.	No	No Effect
3.	<b>Pecho Manzanita</b> <i>Arctostaphylos pechoensis</i>	None/none G2/S2.2 List 1B.2	November - March	Shale outcrops, chaparral, coniferous forest; <850 m. s CCo (Pecho Hills, SLO)	No. The Property is outside the known range of this species.	No	No Effect
4.	<b>Santa Margarita Manzanita</b> <i>Arctostaphylos pilosula</i>	None/none G2/S2.2 List 1B.2	December - March	Shale outcrops, slopes, chaparral; 300-1100 m. (near Santa Margarita)	No. Appropriate soil and habitat type not found on the Property.	No	No Effect
5.	<b>San Simeon Baccharis</b> <i>Baccharis plumerae</i> ssp. <i>glabrata</i>	None/none G3T1/S1.2 List 1B.2	June	Shrubby slopes; <100 m. c CCo (nw SLO County)	No. Appropriate habitat is not found on the Property.	No	No Effect
6.	<b>Round-leaved Filaree</b> <i>California macrophyllum</i>	None/none G4/S2.1 List 2.1	March - May	Open areas of clay soils in cismontane woodland, valley and foothill grassland; 15-1200 m.	No. Appropriate clay soils are not present on the Property.	No	No Effect
7.	<b>San Luis Mariposa Lily</b> <i>Calochortus obispoensis</i>	None/none G2/S2.1 List 1B.2	May - July	Dry serpentine gen in chaparral. 100-500 m. Endemic to SLO County	No. Serpentine soils do not occur on the Property.	No	No Effect
8.	<b>Dwarf Calycadenia</b> <i>Calycadenia villosa</i>	None/none G2/S2.1 List 1B.1	May - October	Dry, rocky hills, ridges, in chaparral, woodland, meadows and seeps; <1100 m. c&s SCoRO	Yes. Appropriate soils and habitat are present on the Property.	No	No Effect

	Common and Scientific Names	Fed/State Status Global/State Rank CNPS List	Blooming Period	Habitat Preference	Potential Habitat?	Detected on Property?	Effect of Activity
9.	<b>Hardham's Evening Primrose*</b> <i>Camissonia hardhamiae</i>	None/none G1Q/S1.2 List 1B.2	April - May	Decomposed carbonate soils, in chaparral, cismontane woodland; 300 -550 m. Monterey, SLO Counties	Yes. Appropriate soils may be present on the Property.	No	No Effect
10.	<b>San Luis Obispo Sedge</b> <i>Carex obispoensis</i>	None/none G2/S2.2 List 1B.2	April - June	Serpentine springs, stream sides; <600 m. Endemic to SLO County	No. Serpentine soils do not occur on the Property.	No	No Effect
11.	<b>Obispo Indian Paintbrush*</b> <i>Castilleja densiflora</i> ssp. <i>obispoensis</i>	None/none G5T2/S2.2 List 1B.2	April - May	Coastal grassland, <100 m. Endemic to SLO County	Yes. Appropriate grassland habitat is present on the Property.	No	No Effect
12.	<b>Lemmon's Jewel-flower</b> <i>Caulanthus lemmonii</i>	None/none G4T2/S2.2 List 1B.2	March - May	Dry, exposed slopes; 80-800 m. sw SnJV, se SnFrB, e SCoRO, SCoRI	Yes. Appropriate soils and dry conditions are present on Property.	No	No Effect
13.	<b>Purple Amole*</b> <i>Chlorogalum purpureum</i> var. <i>purpureum</i>	Threatened/none G1T1/S1.1 List 1B.1	April - June	Cismontane woodland, valley and foothill grassland, often with blue oaks; 300-330 m. Monterey, SLO Counties	Yes. Appropriate habitat is present on the Property.	No	No Effect
14.	<b>Straight-awned Spineflower*</b> <i>Chorizanthe rectispina</i>	None/none G1/S1.2 List 1B.3	May - July	Chaparral, dry woodland in sandy soil; 200-600 m. Endemic to SLO County	Yes. Appropriate soils and habitat are present on the Property.	No	No Effect
15.	<b>Chorro Creek Bog Thistle</b> <i>Cirsium fontinale</i> var. <i>obispoense</i>	Endangered/ Endangered G2T1/S1.2 List 1B.2	February - July	Serpentine seeps and streams; <300 m. Endemic to SLO County	No. Serpentine soils do not occur on the Property.	No	No Effect
16.	<b>San Antonio Collinsia</b> <i>Collinsia antonina</i>	None/none G1/S1.2 List 1B.2	March - May	Chaparral, cismontane woodland on shale substrates. 1200 ft.	No. Appropriate shale substrates are not present on the Property.	No	No Effect

	<b>Common and Scientific Names</b>	<b>Fed/State Status Global/State Rank CNPS List</b>	<b>Blooming Period</b>	<b>Habitat Preference</b>	<b>Potential Habitat?</b>	<b>Detected on Property?</b>	<b>Effect of Activity</b>
17.	<b>Small-flowered Gypsum-loving Larkspur*</b> <i>Delphinium gypsophilum</i> ssp. <i>parviflorum</i>	None/none G4T3/S3.3 List 4.3	March - June	Clay soil in cismontane woodland; 200-350 m.	Yes. Appropriate soil and habitat types are present on the Property.	No	No Effect
18.	<b>Umbrella Larkspur*</b> <i>Delphinium umbraculorum</i>	None/none G2G3/S2S3.3 List 1B.3	April - June	Moist oak forest; 400-1600 m. SCoRO, WTR	Yes. Appropriate moist oak woodland is present on the Property.	No	No Effect
19.	<b>Yellow-flowered Eriastrum</b> <i>Eriastrum luteum</i>	None/none G2/S2.2 List 1B.2	May - June	Drying slopes; <1000 m. Monterey, SLO Counties	Yes. Appropriate dry chaparral habitat is present on the Property.	Yes	No Effect Project would avoid the occurrence
20.	<b>Hardham's Bedstraw</b> <i>Galium hardhamiae</i>	None/none G2/S2.3 List 1B.3	April - October	Serpentine soil with Sargent Cypress; 400-950 m. SCoRO	No. Appropriate soil and habitat type not found on the Property.	No	No Effect
21.	<b>Salinas Valley Goldfields*</b> <i>Lasthenia leptalea</i>	None/none G3/S3.3 List 4.3	February - April	Open areas in woodland habitats in Monterey and SLO Counties; <500 m.	Yes. Appropriate habitat is present on the Property.	No	No Effect
22.	<b>Pale Yellow Layia</b> <i>Layia heterotricha</i>	None/none G1/S1.1 List 1B.1	March - June	Alkaline or clay soils, open areas, in pinyon-juniper woodland, valley and foothill grassland; 270-1705 m. Teh, SnJV, SCoR, n WTR	Yes. Appropriate habitat and soils are present on the Property.	No	No Effect
23.	<b>Abbott's Bush Mallow</b> <i>Malacothamnus abbottii</i>	None/none G1/S1.1 List 1B.1	May - October	Riparian scrub, growing among willows along rivers, roadsides; 135-525 m. s Monterey County	Yes. Appropriate habitat is present on the Property.	No	No Effect

	Common and Scientific Names	Fed/State Status Global/State Rank CNPS List	Blooming Period	Habitat Preference	Potential Habitat?	Detected on Property?	Effect of Activity
24.	<b>Davidson's Bush Mallow</b> <i>Malacothamnus davidsonii</i>	None/none G1/S1.1 List 1B.2	June - January	Sandy washes in coastal scrub, riparian woodland, chaparral; 180-855 m. c SCoRO, SCo	Yes. Moderately appropriate habitat is present on the Property.	No	No Effect
25.	<b>Carmel Valley Bush Mallow</b> <i>Malacothamnus palmeri</i> var. <i>involutcratus</i>	None/none G3T2Q/S2.2 List 1B.2	May - October	Chaparral, cismontane woodland, coastal scrub; 30-1100 m. s CCo, SCoRO	Yes. Appropriate habitat is present on the Property.	No	No Effect
26.	<b>Santa Lucia Bush Mallow</b> <i>Malacothamnus palmeri</i> var. <i>palmeri</i>	None/none G3T2Q/S2.2 List 1B.2	May - July	Chaparral, cismontane woodland, coastal scrub; 30-1100 m. s CCo, SCoRO	No. This subspecies is typically restricted to coastal slopes.	No	No Effect
27.	<b>Woodland Woollythreads</b> <i>Monolopia gracilens</i>	None/none G3/S3 List 1B.2	March – July	Chaparral, serpentine grassland, cismontane woodland, sandy to rocky soils; SnFrB, SCoR	No. Suitable habitat and soil types are not present on the Property.	No	No Effect
28.	<b>California Spineflower*</b> <i>Mucronea californica</i>	None/none G3/S3.2 List 4.2	March - August	Sandy soil in coastal scrub, chaparral; 0-1400 m. CS, SW	Yes. Appropriate soil conditions are present on the Property.	Yes	No Effect Project would avoid the occurrence
29.	<b>Paso Robles Navarretia*</b> <i>Navarretia Jaredii</i>	None/none G3S3.3 List 4.3	April - July	Open, grassy areas, often in clay, serpentine, and sands and gravels; 200-500 m. SCoRI, SW	Yes. This species was mapped in numerous locations on the Property.	Yes	Negligible Effect
30.	<b>Shining Navarretia*</b> <i>Navarretia nigelliformis</i> ssp. <i>radians</i>	None/none G4T1/S1.1 List 1B.2	May - July	Vernal pools, clay depressions, grasslands; 100-1000 m. SCoRI	Yes. Appropriate habitat and soils are present on the Property.	No	No Effect

	Common and Scientific Names	Fed/State Status Global/State Rank CNPS List	Blooming Period	Habitat Preference	Potential Habitat?	Detected on Property?	Effect of Activity
31.	<b>Prostrate</b> <i>Navarretia</i> <i>Navarretia prostrata</i>	None/none G2?/S2.1? List 1B.1	April - June	Vernal pools or alkaline soils in grasslands; 15-700 m. w SnJV, SCOR, c SCo, PR	Yes. Moderately appropriate habitat is present in man-made vernal wetlands.	No	No Effect
32.	<b>Large-flowered</b> <i>Nemacladus</i> <i>Nemacladus secundiflorus</i> var. <i>secundiflorus</i>	None/None G3T3?/S3? List 4.3	April – June	Gravelly openings in chaparral, valley and foothill grassland. 200-2000m. s SNH, SCoR	Yes. Appropriate habitat is present on the Property.	No	No Effect
33.	<b>Michael's Rein Orchid*</b> <i>Piperia michaelii</i>	None/none G3/S3.2 List 4.2	April - August	Dry oak woodland habitat in SLO County; 3-915 m. NCo, SNF, CCo, SnFrB, n SCo, WTR, S. Cruz Is.	Yes. Appropriate habitat is present on the Property.	No	No Effect
34.	<b>Hooked Popcorn Flower</b> <i>Plagiobothrys uncinatus</i>	None/none G2/S2.2 List 1B.2	April - May	Canyon sides, chaparral; on sandstone 300-600 m. n SCoR (Gabilan Range, Santa Lucia Mountains)	Yes. Appropriate chaparral habitat is present on the Property.	No	No Effect
35.	<b>Most-beautiful Jewel-flower</b> <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	None/none G2T2/S2.2 List 1B.2	April - June	Open, grassy or ± barren slopes, usually serpentine; ± 150-800 m. c SCoRO	No. Serpentine soil does not occur on the Property.	No	No Effect
36.	<b>Mason's Neststraw</b> <i>Stylocline masonii</i>	None/none G1/S1.1 List 1B.1	March - May	Sandy washes in chenopod scrub, pinyon-juniper woodland; 100-400 (1200) m. nw Teh, s SnJV, SCoRO	No. Appropriate habitat type not present on the Property.	No	No Effect
37.	<b>Cook's Tritelleia</b> <i>Triteleia ixioides</i> ssp. <i>cookii</i>	None/none G5G2/S2.3 List 1B.3	May - June	Streamsides, ravines on serpentine near cypresses; <500 m. SCoRO	No. Appropriate soil and habitat type not found on the Property.	No	No Effect

Habitat characteristics are from the Jepson Manual and the CDNNB.

\*not listed in the CNDDB or CNPS for the search area, but possible for the location.

TABLE 6. SPECIAL STATUS ANIMAL LIST. Twenty-six special status animals known or reported from the region are listed. Sixteen special status animals could potentially occur on the Property based on review of preferred habitat types.

	<b>Common and Scientific Names</b>	<b>Fed/State Status Global/State Rank DFG Rank</b>	<b>Nesting/Breeding Period</b>	<b>Habitat Preference</b>	<b>Potential Habitat?</b>	<b>Detected on Property?</b>	<b>Effect of Activity</b>
1.	<b>Cooper's Hawk*</b> <i>Accipiter cooperii</i>	None/none G5S3 Special Animal	March 15 through August15	Oak woodland, riparian, open fields. Nests in dense trees, esp. coast live oak.	Yes. Appropriate nesting and hunting habitat present on the Property.	Yes (not nesting)	No Effect
2.	<b>California (=Silvery) Legless Lizard*</b> <i>Anniella pulchra</i>	None/none G3G4T3T4Q/S3 SSC	May - September	Sandy or loose loamy soils under sparse vegetation or oak trees. Soil moisture essential.	Yes. Appropriate soils and habitat are present on the Property.	Yes	Potential Adverse Effect Can Be Mitigated
3.	<b>Pallid Bat*</b> <i>Antrozous pallidus</i>	None/none G5/S3 SSC	Spring - Summer	Rock crevices, caves, tree hollows, mines, old buildings, and bridges.	Yes. Appropriate roosting areas may be present in oak trees and rock crevices on the Property.	No	Potential Adverse Effect Can Be Mitigated
4.	<b>Golden Eagle*</b> <i>Aquila chrysaetos</i>	None/none BGEPA Protected G5/S3 SSC Fully Protected	March 15 through August15	Nests in large, prominent trees in valley and foothill woodland. Requires adjacent food source.	Yes Golden eagles were observed hunting on the Property regularly.	Yes	Potential Adverse Effect Can Be Mitigated
5.	<b>White-tailed Kite*</b> <i>Elanus leucurus</i>	None/none G5/S3 None	March 15 through August15	Nests in dense tree canopy near open foraging areas	Yes. Potential nesting and foraging habitat is present on the Property.	No	No Effect
6.	<b>Western Pond Turtle</b> <i>Emys marmorata</i>	None/none G3G4T2T3Q/S2 SSC	April - August	Permanent or semi-permanent streams, ponds, lakes.	Yes. Pond turtles are residents in Nacimiento Lake.	Yes	No Effect
7.	<b>Merlin*</b> <i>Falco columbarius</i> (wintering)	None/none G5/S3 Special Animal	March 15 through August15	Winters on seacoasts, estuaries, woodlands, savannas, grassland edges, deserts.	Yes. Appropriate habitat is present on the Property for wintering merlins.	No	No Effect
8.	<b>Prairie Falcon</b> <i>Falco mexicanus</i>	None/none G5/S3 Special Animal	March 15 through August15	Inhabits dry, open terrain. Nests on cliffs near open areas for hunting.	No. Cliffs suitable for nesting are not present on the Property.	No	No Effect

	Common and Scientific Names	Fed/State Status Global/State Rank DFG Rank	Nesting/ Breeding Period	Habitat Preference	Potential Habitat?	Detected on Property?	Effect of Activity
9.	<b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>	Delisted/ Endangered BGEPA Protected G4/S2 Special Animal (Nesting and Wintering)	March 15 through August 15	Nests within 1 mile of water in tall live tree with open branches. 2 nest records in SLO County near Nacimiento Lake.	Yes. Bald eagles were observed roosting in trees on the Property.	Yes	Potential Adverse Effect Can Be Mitigated
10.	<b>Monterey Dusky-footed Woodrat*</b> <i>Neotoma macrotis luciana</i>	None/none G5T3?/S3? SSC	n/a	Variety of habitats with moderate to dense understory vegetation.	Yes. Appropriate habitat is present on the Property.	Yes	Potential Adverse Effect Can Be Mitigated
11.	<b>Steelhead Trout South/Central California Coast DPS</b> <i>Oncorhynchus mykiss</i>	Threatened/none G5T2Q/S2 SSC	February - April	Fed listing refers to runs in coastal basins from Pajaro River south to, but not including, the Santa Maria River.	No. The project site is not connected with known steelhead streams.	No	No Effect
12.	<b>Coast Horned Lizard*</b> <i>Phrynosoma blainvillii</i>	None/none G4G5/S3S4 SSC	May - September	Frequents a wide variety of habitats, most common in lowlands along washes with scattered low bushes.	Yes. Appropriate habitat is present in some areas of the Property.	No	No Effect
13.	<b>California Red-legged Frog</b> <i>Rana draytonii</i>	Threatened/none G4T2T3/S2S3 SSC	January - March (larval development through summer)	Lowlands and foothills in or near sources of deep water with dense, shrubby or emergent riparian vegetation.	Yes. Moderately appropriate habitat is present on the Property.	No	No Effect
14.	<b>Western Spadefoot Toad*</b> <i>Spea hammondi</i>	None/none G3?/S3? SSC	January - August	Vernal pools in grassland and woodland habitats.	Yes. Seasonal ponds on the Property could harbor breeding spadefoot toads.	No	No Effect

	Common and Scientific Names	Fed/State Status Global/State Rank DFG Rank	Nesting/ Breeding Period	Habitat Preference	Potential Habitat?	Detected on Property?	Effect of Activity
15.	<b>Two-striped Garter Snake</b> <i>Thamnophis hammondi</i>	None/none G2G3/S2 SSC	Spring (young born late summer)	Coastal California from Salinas to Baja, sea level to 7000', aquatic, in or near permanent water, streams with rocky beds and riparian growth	No. Appropriate habitat is not present on the Property.	No	No Effect
16.	<b>San Joaquin Kit Fox</b> <i>Vulpes macrotis mutica</i>	Endangered/ Threatened G4T2T3/S2S3 None	December - July	Annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose textured sandy soil and prey base.	No. The Property is outside the currently known range of the species.	No	No Effect

Abbreviations:

CCo: Central Coast  
SCo: South Coast  
SCoR: South Coast Ranges  
SCoRO: Outer South Coast Ranges

SCoRI: Inner South Coast Ranges  
SnFrB: San Francisco Bay  
TR: Transverse Ranges  
WTR: Western Transverse Ranges

SnJV: San Joaquin Valley  
SLO: San Luis Obispo  
SN: Sierra Nevada  
SnJt: San Jacinto Mtns  
Teh: Tehachapi Mtn Area

CW: Central West  
SW: South West

### 3.6.4 *Special status plants that could or do occur on the Property*

Twenty-one special status plant species could potentially occur on the Property based on an analysis of known ecological requirements of these species and the habitat conditions that were observed on the Property. We discuss each species and describe habitat, range restrictions, known occurrences, and survey results for the Property. Mapped locations of special status plants identified on the Property are indicated on the Biological Resource Map in Section 7.0. Three special status plant species (yellow-flowered eriastrum, California spineflower, and Paso Robles navarretia) were mapped on the Property in 2006.

- A. Dwarf Calycadenia** (*Calycadenia villosa*) is on CNPS List 1B.1, the highest threat rank for plants before state or federal protections are sought. The species is known from dry, rocky hills and gravelly outwashes in Monterey, San Luis Obispo, Santa Barbara, Fresno and Kern Counties. The CNPS considers this species to be seriously endangered. Occurrences in the CNDDDB for San Luis Obispo and Monterey Counties include the vicinity of Nacimiento and San Antonio Lakes, north to Jolon, with scattered occurrences in Parkfield to the east and in La Panza District, east of Santa Margarita.

Appropriate soils and habitat are present on the Property for dwarf calycadenia. Dwarf calycadenia was mapped by Althouse and Meade, Inc. on an adjacent ranch Property in 2006 (Althouse and Meade, Inc., 2006b), with the closest calycadenia polygons occurring approximately 0.2 miles from appropriate habitat on the Property. The ranches are separated by the confluence of Kavanaugh and Cantinas Creeks with Lake Nacimiento. Appropriately timed surveys for *Calycadenia villosa* were conducted on the Property in 2006, 2007 and 2011. Dwarf calycadenia does not occur on the Property.

- B. Hardham's evening primrose** (*Camissonia hardhamiae*) is a CNPS List 1B.2 species endemic to Monterey and San Luis Obispo Counties. The species is known from approximately ten localities in two distinct areas, one in the Bradley quadrangle of Monterey County and one in the Santa Margarita quadrangle of San Luis Obispo County. It grows in decomposed carbonate soils in sandy or gravelly washes and hillsides with little other plant cover. *Camissonia hardhamiae* typically blooms from April to May. Appropriate soils were identified on a hilltop within the Dibble clay loam soil map unit where limestone is present beneath a sandy surface soil horizon. A collection was made at this location in June 2006 of an evening primrose that may be *Camissonia hardhamiae*. The location is outside of the proposed project areas. The specimen did not have pollen grains available for the analysis that is required to make the taxonomic determination.
- C. Obispo Indian paintbrush** (*Castilleja densiflora* ssp. *obispoensis*) is a CNPS List 1B.2 subspecies known only from San Luis Obispo County. It is an annual wildflower that occurs in coastal grasslands in sandy or clay soils. It is not generally known from inland areas, however there are recent reports from the Paso Robles region (CNDDDB Occurrences 36, 37, and 42). The closest reported occurrence to the Property is from 9.75 miles east, on Camp Roberts (Occ. 37). Appropriate habitat is present in the project areas for this rare subspecies. Two

common subspecies of *C. densiflora* were identified on the Property (see Table 3); however the distinctively white Obispo Indian paintbrush was not encountered on the Property during appropriately timed surveys.

- D. Lemmon's Jewel-flower** (*Caulanthus lemmonii*) is a CNPS list 1B.2 subspecies that grows on dry, exposed slopes in the Coast Ranges. The CNPS considers this species to be fairly endangered in California. Numerous old collection records are from the Paso Robles area. Appropriate habitat is present on dry slopes throughout the Property. The closest reported occurrence to the Property is approximately 4.2 miles northeast (CNDDDB 26). Lemmon's jewel-flower typically blooms from March through May. Our spring surveys started May 20, 2006 and were potentially conducted too late in the blooming period to locate this species in full bloom. Surveys in 2011 were also too late in the blooming period to detect this species. However, proposed project areas are not located in potential habitat for Lemmon's jewel-flower.
- E. Purple amole** (*Chlorogalum purpureum* var. *purpureum*) is a federally listed threatened species endemic to Monterey and San Luis Obispo Counties. It occurs in grassy areas within blue oak woodland habitat, usually in heavy clay soils. The closest reported occurrence is on Camp Roberts, approximately 9.75 miles east of the Property (CNDDDB 16). All members of the genus *Chlorogalum* that were observed on the Property were the common species, *Chlorogalum pomeridianum*. Purple amole lily does not occur on the Property.
- F. Straight-awned spineflower** (*Chorizanthe rectispina*) is a CNPS List 1B.3 species known only from Monterey, San Luis Obispo, and Santa Barbara Counties. It occurs on sandy or gravelly soils in open areas of chaparral and woodland habitats. Several records are from southern Monterey County, north of Lake Nacimiento. One recent CNDDDB record places this species on Camp Roberts, approximately 9.9 miles east of the Property (CNDDDB 27, 4/18/05). Appropriate habitat is present on the Property; however this species was not identified during our floristic surveys in 2006 or during reconnaissance surveys in 2007 and 2011. *Chorizanthe obovata*, a common and similar species, was identified on the Property.
- G. Small-flowered gypsum-loving larkspur** (*Delphinium gypsophilum* ssp. *parviflorum*) is a CNPS List 4.3 subspecies known from scattered localities in the Paso Robles region and elsewhere. This species occurs very locally on road-cut slopes in blue oak (*Quercus douglasii*) woodland along Lynch Canyon Road. It co-occurs with and may hybridize with *Delphinium parryi* ssp. *parryi*. It was not encountered within the Property boundaries, although appropriate habitat is present.
- H. Umbrella larkspur** (*Delphinium umbraculorum*) is a CNPS List 1B.3 species known from moist oak forest habitat in Monterey, San Luis Obispo, Santa Barbara, and Ventura Counties. The closest reported occurrence to the subject parcels is 3.7 miles south of Lockwood on Interlake Road, approximately 9.2 miles north of the Property (CNDDDB #32). Appropriate habitat is present on the

Property. Appropriately timed floristic surveys conducted in 2006 determined umbrella larkspur does not occur on the Property.

- I. **Yellow-flowered Eriastrum** (*Eriastrum luteum*) is a CNPS list 1B.2 species known only from Monterey and San Luis Obispo Counties. The CNPS considers this species to be fairly endangered in California. It grows on drying slopes less than 1000 meters in elevation, usually on decomposed granite. Locality records indicate this species occurs locally from southeast San Luis Obispo County (Santa Margarita) to northwestern San Luis Obispo County and southern Monterey County (Jolon, Pleyto). Habitat appropriate for this species is generally steep chaparral hillsides. The closest reported occurrence to the Property is 4.2 miles northeast at Bee Rock (CNDDDB 16). Yellow-flowered eriastrum was mapped in one location on the Property, on the north side of Lynch Canyon Road. The occurrence occupies 0.9 acres of open buckwheat scrub habitat. Approximately 400 plants were identified at this location in 2006, growing in Dibble clay loam soil, in barren areas between California buckwheat (*Eriogonum fasciculatum*) shrubs and foothill pine (*Pinus sabiniana*) trees on a south-facing hillside. In 2011 this occurrence was overgrown with introduced grasses, likely due to the above-average rainfall season, and only a few yellow-flowered eriastrum plants were present.
- J. **Salinas Valley goldfields** (*Lasthenia leptalea*) is a CNPS List 4.3 species known only from Monterey and San Luis Obispo Counties. It is limited in distribution but abundant enough to be considered not very endangered by CNPS. Appropriate habitat is present on the Property. Common goldfields (*Lasthenia californica*) was the only species in this genus identified on the Property.
- K. **Pale-yellow Layia** (*Layia heterotricha*) is a CNPS List 1B.1 species known from alkaline or clay soils in cismontane woodland, chaparral, and grassland habitats of central California. The CNPS considers this species to be seriously endangered. In San Luis Obispo County this species is known to occur in the La Panza Range, Elkhorn Hills, Carizzo Plains, Temblor Range, and the vicinity of Bee Rock on the north side of Lake Nacimiento. The Bee Rock collection (CNDDDB 12) is approximately 5.3 miles east of the Property and represents the closest reported occurrence to the site. Pale-yellow layia was previously reported to occur on the Property in our 2006 Biological Report. However, in 2007 we re-evaluated the identification of previously collected specimens and determined the plants that occur on the Property are *Layia glandulosa*. The form of *L. glandulosa* that occurs on the Property has ray flowers with a pale yellow coloration, in contrast to white ray flowers which are more typical of this species. Pale-yellow layia does not occur on the Property.
- L. **Abbott's bush mallow** (*Malacothamnus abbottii*) is a CNPS List 1B.2 species that is endemic to Monterey County. It occurs in riparian scrub habitat, growing with willows in river and stream corridors. It has also been reported growing along roadsides in Monterey County. Abbott's bush mallow has not been reported in San Luis Obispo County. Two occurrences are located in upper Kavanaugh Creek, the closest of which is approximately 3 miles upstream from the Property (CNDDDB 8). Moderately appropriate habitat is found on the Property for Abbott's

bush mallow. Floristic surveys conducted in 2006 determined Abbott's bush mallow does not occur on the Property.

- M. Davidson's bush mallow** (*Malacothamnus davidsonii*) is a CNPS List 1B.2 species that occurs from San Mateo County south to Los Angeles County. It prefers chaparral, coastal scrub, and riparian woodland communities. The closest reported occurrence to the Property is 4.2 miles northeast at Bee Rock. This site is based on a 1957 (Hardham #2484) collection with vague location information. Appropriate habitat is present on the Property for Davidson's bush mallow. Floristic surveys conducted in 2006 determined Davidson's bush mallow does not occur on the Property.
- N. Carmel Valley bush mallow** (*Malacothamnus palmeri* var. *involutus*) is a CNPS List 1B.2 subspecies that occurs in cismontane woodland, chaparral, and coastal scrub habitats in Monterey and San Luis Obispo Counties. Available records in the CNDDDB and CNPS show the closest occurrence for this species approximately 6.7 miles south of the Property along the south fork of Las Tablas Creek (CNDDDB 2). Potentially appropriate habitat is found on the Property for this subspecies of bush mallow. Floristic surveys conducted in 2006 determined Carmel Valley bush mallow does not occur on the Property.
- O. Carmel Valley Malacothrix** (*Malacothrix saxatilis* var. *arachnoidea*) is a CNPS List 1B.2 species with a limited distribution in Monterey County, extending slightly into San Luis Obispo and San Benito Counties. It grows on steep rocky slopes in chaparral and coastal scrub communities. It is not known from the immediate vicinity of Lake Nacimiento, although appropriate habitat is present on the Property. This species was not encountered on the Property during floristic surveys conducted in 2006.
- P. California spineflower** (*Mucronea californica*) is a CNPS List 4.2 species that occurs in sandy or gravelly soils throughout much of central and southern California. It is found sporadically in San Luis Obispo County in sand or gravel barrens. California spineflower occurs on the Property in the Gaviota-Rock complex soil type. It was mapped in two locations near the shoreline of Lake Nacimiento at the south end of the ranch. Several hundred plants were present in 2006. Because this species is an annual, it could occur in adjacent areas of the Gaviota-Rock complex soil type in the future.
- Q. Paso Robles navarretia** (*Navarretia jaredii*) is a CNPS List 4.3 species endemic to Monterey and San Luis Obispo Counties. It grows in clay, gravelly loam, and calcareous soils in areas with little competition from annual grasses. The CNPS considers this species not to be very endangered in California. Paso Robles navarretia is distinguished from other *Navarretia* species by strap-shaped calyx ribs wider at base than membranes, axis of upper leaves and bracts wider above middle, central stem shorter than or equal in length to branches, with axis white-hairy. It grows in a variety of soils in areas with little competition from annual grasses. This taxon, *N. jaredii*, is currently under revision and is likely genetically identical to *Navarretia mitracarpa*, which is presently considered a synonym of *N. pubescens* (D. Keil pers. comm. 2010; Johnson 2007). Johnson's

taxonomic recommendation is to elevate *N. mitracarpa* to full species, and consider *N. jaredii* a synonym. This recommendation has been accepted in the proposed key for the second edition of the Jepson Manual (in press; preliminary keys available at <http://ucjeps.berkeley.edu/jepsonmanual/review/>). Revision of the taxonomy for this genus could result in inclusion of the currently recognized *Navarretia jaredii* as part of a much more common taxon that does not meet criteria to remain on CNPS List 4. Paso Robles navarretia is abundant in valley needlegrass grassland habitat, and scattered in patches in annual grassland habitat. Approximately 19.5 acres of grassland habitat supporting this species was mapped on the Property; however many small areas of occurrence were not entirely mapped.

- R. **Shining navarretia** (*Navarretia nigelliformis* ssp. *radians*) is a CNPS List 1B.2 subspecies known from vernal pools, valley and foothill grassland, and cismontane woodland habitats in Fresno, Merced, Monterey, San Benito, and San Luis Obispo Counties. There are numerous collection records on Camp Roberts, the closest of which is approximately 9 miles east of the Property (CNDDDB 49). Appropriate habitat is present on the Property; however this species was not encountered on the Property during floristic surveys conducted in 2006.
- S. **Prostrate navarretia** (*Navarretia prostrata*) is a CNPS List 1B.1 species endemic to Monterey and San Luis Obispo Counties. It occurs in alkaline soils in grassland, vernal pool, and coastal scrub habitats. The closest reported occurrence to the Property is 6.8 miles north, at the former site of Pleyto that was inundated by the creation of Lake San Antonio. Appropriate habitat may be present in wetland swales on the Property; however floristic surveys conducted from May through August 2006 did not locate this species on the Property.
- T. **Michael's rein orchid** (*Piperia michaelii*) is a CNPS List 4.2 species known from scattered occurrences throughout much of California. It is found in dry sites, often near oaks with abundant leaf mulch, in coastal and cismontane woodland areas. Althouse and Meade, Inc. documented this species in blue oak woodland west of Heritage Ranch in 2005 (Althouse and Meade, Inc. 2006a). Appropriate habitat is present on Property for Michael's rein orchid. Floristic surveys conducted in 2006 did not locate this species on the Property.
- U. **Hooked popcorn flower** (*Plagiobothrys uncinatus*) is a CNPS List 1B.2 species with a limited distribution centered in Monterey County. It is usually associated with dry soils in chaparral habitat, but has been reported from heavy clay soils in meadows. It blooms in April and May. The closest reported occurrence to the Property is 7.8 miles south near Franklin Creek (CNDDDB 1). Appropriate habitat for this species is present on the Property. Floristic surveys conducted in 2006 did not identify hooked popcorn flower on the Property. The floristic surveys may have been slightly too late in the season to detect hooked popcorn flower.

### 3.6.5 *Special status animals that could occur on the Property*

Twelve special status animal species could potentially occur on the Property. We discuss each species and describe habitat, range restrictions, known occurrences, and survey

results. The Biological Resource Map in Section 7.0 indicates the location of one special status animal, the California legless lizard.

- A. Cooper's hawk** (*Accipiter cooperii*) is a Special Animal that frequents oak and riparian woodland habitats. Oak trees appropriate for nesting are present on the Property. Cooper's hawk was not observed nesting on the Property during our site surveys in 2006, 2007, and 2011. A wintering Cooper's hawk was observed on the Property hunting band-tailed pigeons in December 2006. This species winters on the Property and could potentially nest on the Property.
- B. California legless lizard** (*Anniella pulchra*) is a California Species of Special Concern that lives in friable soils in coastal and interior regions of San Luis Obispo County and elsewhere. There are no CNDDDB reports of this species in the vicinity of Lake Nacimiento. Two adult legless lizards were observed on the Property in the Gaviota-Rock complex soil type, at the south end of the ranch. The legless lizards were found in leaf litter beneath a coast live oak tree. Appropriate habitat and soils are present in many wooded or shrubby areas of the Property for legless lizards. Legless lizards are not expected to occur in open grasslands.
- C. Pallid bat** (*Antrozous pallidus*) is a California Species of Special Concern. This is a large, long-eared bat occurring throughout the state from deserts to moist forests. *Antrozous pallidus* is primarily a crevice roosting species and selects roosts where they can retreat from view. They frequently occur in oak woodlands where they roost in tree cavities. These roosts are generally day or night roosts for one or a few bats. Attics may be used as roosts and during hot days they may emerge from crevices and roost on open rafters. Communal wintering or maternity colonies are more common in rock crevices and caves. Appropriate roosting habitat may be present in oak trees and rock crevices on the Property. Focused bat surveys were not conducted as part of this biological assessment.
- D. Golden eagle** (*Aquila chrysaetos*) is designated a Fully Protected species by the CDFG. Fully Protected species may not be taken under any circumstances, and authorization for take may not be granted (refer to Section 3.6.2). The golden eagle is also protected under the federal Bald and Golden Eagle Protection Act. They require large trees for nesting and open hunting grounds with abundant prey. Adult and juvenile golden eagles were observed on the Property regularly in the spring of 2006. Golden eagles are presumed to nest in the vicinity of the Property. Grasslands on the Property are used by golden eagles for hunting California ground squirrels and other prey items.
- E. White-tailed kite** (*Elanus leucurus*) is a California Species of Special Concern that nests in dense tree canopy near open fields for hunting throughout San Luis Obispo County. The CNDDDB does not contain nesting records for this species in the vicinity of Lake Nacimiento. Althouse and Meade, Inc. biologists observed a pair nesting in live oak trees on the south shore of the lake in 2006. Appropriate nesting and foraging areas are present on Property; however kites were not observed on the Property during our surveys of the site in 2006 or 2011.
- F. Western pond turtle** (*Emys marmorata*) is a California Species of Special Concern that inhabits ponds and slow moving streams with adequate pools. Pond turtles will

move up seasonal streams during the winter months, and can over-summer in underground burrows during dry years when ponds are empty. Appropriate habitat is present in man-made stock ponds, and calm backwaters at the confluence of Kavanaugh and Cantinas Creeks with the main lake. Pond turtles were not observed on the Property during our site surveys in 2006. Two pond turtles were observed in the Kavanaugh and Cantinas Creeks confluence area in the spring of 2007.

- G. Merlin** (*Falco columbarius*) is a Special Animal that winters in San Luis Obispo County and elsewhere in California. Appropriate habitat is present on the Property. Merlins were not observed during our site surveys, but could be present during winter months.
- H. Bald Eagle** (*Haliaeetus leucocephalus*) is delisted from the federal Endangered Species Act (ESA), and is listed as endangered under the California ESA. The bald eagle is a Fully Protected species, with additional protections provided under the Federal Bald and Golden Eagle Protection Act. Bald eagles are wide ranging migrants that typically nest within one mile of water. In San Luis Obispo County, there is a nesting population of reintroduced bald eagles at Lake Nacimiento, and recent records of a nest at Santa Margarita Lake, Whale Rock Reservoir and possibly Lopez Lake. Adults and young are wide ranging and often migratory. Preferred prey is fish, although they will occasionally hunt water fowl, small mammals, and will scavenge carrion. Bald eagles were reintroduced to the region by the Ventana Wilderness Society in the mid-1990's. Althouse and Meade, Inc. conducted a bald eagle survey for the Property in 2006 according to USFWS protocols (Jackman 2004).

As of the 2011 nesting season, there are 5 active bald eagle breeding territories at Lake Nacimiento. This is an increase from the 3 territories that were present in 2006. In the greater Nacimiento and San Antonio Lakes region there are 11 known active breeding territories that fledged a total of 20 chicks in 2011 (Lucido 2011). In 2006 the closest active nest to the Property was situated on the shoreline at the Oak Shores residential development, approximately 1.4 miles east of the Property (CNDDDB 249). One juvenile was observed by Padre Associates in this nest in 2006, and two were observed in the nest in 2007. The Oak Shores nest was vacated in 2010, and the eagles relocated to an undisclosed area on the south shore of the lake (Lucido 2011). This pair successfully fledged 2 eaglets in 2010 and 2011 from the new nest. The Oak Shores nest remains unoccupied.

There are no bald eagle nests, either active or inactive, on the Property. However, bald eagles regularly use trees in the Cantinas Creek and Kavanaugh Creek confluence with Lake Nacimiento (east boundary of the Property) for roosting and hunting (refer to Table C-1 in Appendix C, and the Biological Resource Map in Section 7.0).

- I. Monterey Dusky-footed Woodrat** (*Neotoma macrotis luciana*) is a California Species of Special Concern known only from the Santa Lucia Mountains in southeastern Monterey and northwestern San Luis Obispo Counties. The nearest record for *N. macrotis luciana* is from the Camp Roberts area, east of the subject parcels. Occurrence numbers 1, 2, and 6 in the CNDDDB are on Camp Roberts

military reservation. Dusky-footed woodrat nests were observed in wooded areas of the Property. Dusky-footed woodrats on Property are presumed to be *N. macrotis luciana* based on range.

- J. Coast Horned Lizard (*Phrynosoma blainvillii*)** is a California Species of Special Concern. Horned lizards are found in dry habitats from coastal dunes to inland deserts. Although this species is not reported from the vicinity of the Property, appropriate habitat is present on dry south and west facing slopes with boulders and rock outcrops where vegetation includes perennial grasses and scrub. This species was not observed on the Property but could occur in dry rocky or sandy areas.
- K. California red-legged frog (*Rana aurora draytonii*)** is a federally listed threatened species with sporadic occurrences documented throughout San Luis Obispo County. It generally requires seasonal pools or streams that hold water until late summer for successful breeding. Bullfrogs and introduced fish are detrimental to its breeding success, and have severely reduced many populations in larger watercourses and perennial ponds. Bullfrogs were observed in one of the stock ponds on the Property. There are no records of red-legged frog within five miles of the Property. The ponds on the Property could provide seasonal habitat for red-legged frogs, if present. None of the creeks on the Property have late season aquatic habitat suitable for breeding red-legged frogs. It would be unlikely for California red-legged frog to occur on the Property.
- L. Western spadefoot toad (*Spea hammondi*)** is a California Species of Special Concern known from ephemeral pools in open grassland habitats across the interior region of San Luis Obispo County. Spadefoot toads remain underground for most of the year, emerging to breed in seasonal wetland pools during the rainy season. Development of the larvae from egg to metamorphosis can be very quick, depending upon water temperature. The closest reported occurrence of spadefoot toads is approximately 9.6 miles east of the subject parcels, on Camp Roberts (CNDDDB 132). Numerous additional reports are from Camp Roberts. Man-made stock ponds on the Property are appropriate for harboring breeding spadefoot toads. The pools were surveyed for amphibian larvae in May, June, and July 2006. Western spadefoot toad tadpoles or adults were not observed on the Property; however the surveys could have been conducted too late in the breeding season to detect larvae.

### 3.6.6 Sensitive natural communities

Two habitats listed by the California Department of Fish and Game (CDFG) as sensitive natural communities are present on the Property: valley needlegrass grassland and valley oak woodland (see Biological Resource Map in Section 7.0). Habitat descriptions are provided in Section 3.3, potential impacts are assessed in Section 5.1, and mitigation recommendations are outlined in Section 6.1. Compensatory mitigation for impacts to sensitive natural communities is typically required by the County of San Luis Obispo and the CDFG.

## 4.0 Discussion

### 4.1 General Discussion of Property Conditions

The Property is a large ranch on mountainous terrain. It is situated on the northern shoreline of Lake Nacimiento, a large recreation area. The ranch has historically been grazed and likely dry farmed in some areas. Presently the ranch has no active farmland or homes, but was grazed as of the fall of 2006. Lynch Canyon Road is a County road that bisects the Property and provides year-round access to the Property.

Woodland and grassland habitats are the dominant vegetation types on the Property. Riparian habitat is present only in Cantinas Creek. Two sensitive natural community types and three special status plant species were mapped on the ranch in 2006. Bald eagles do not currently nest within the Property boundaries, but do forage and roost on the Property along the lake shoreline. Potential nesting habitat is present on the Property for bald eagles. California legless lizard, Monterey dusky-footed woodrat, Western pond turtle, Cooper's hawk, and golden eagle were also observed on the Property.

### 4.2 Regulatory Framework

#### 4.2.1 CEQA guidance

The California Environmental Quality Act (CEQA) requires the lead agency to evaluate potential environmental effects of the project. The lead agency must also identify other State and local agencies (known as responsible agencies) that will be issuing a discretionary approval subject to CEQA for an activity that is part of the project. The following section of the State CEQA Guidelines provides general direction for the evaluation of biological resource impacts as a part of the environmental review of proposed projects.

CEQA Guidelines Section 15065 states that a Lead Agency shall find that a project may have a significant effect on the environment and thereby require an Environmental Impact Report (EIR) be prepared for the project where “there is substantial evidence, in light of the whole record,” that the project, among other things, has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare or threatened species.

A significant effect may also be identified by considerable cumulative environmental effects, even if the individual effect is limited. The following definition of a significant effect is defined in Section 15382 of the CEQA Guidelines:

*“Significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.*

All of the plants constituting CNPS List 1B meet the definitions of Section 1901, Chapter 10 of the California Native Plant Protection Act (CNPPA) in the California Fish and

Game Code or Secs. 2062 and 2067 (California Endangered Species Act) of the California Fish and Game Code, and are eligible for State listing.

#### *4.2.2 Federal and state resource protections*

The agencies that administer the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA) formally list plant and animal species determined to be Threatened or Endangered, and they have adopted regulations to implement these laws to protect such species.

Other federal statutes that provide protection for species and/or their habitats include, but are not limited to, the National Environmental Policy Act (NEPA), the Clean Water Act (for protection of federal wetlands), Bald and Golden Eagle Protection Act (BGEPA), Migratory Bird Treaty Act (MBTA), Executive Order 11990 (wetlands protection), and California Fish and Game Code sections 1601, 1602, and 1603 (Streambed Alteration Agreements).

#### *Wetlands:*

In conjunction with adopting a wetlands policy on March 9, 1987 the California Fish and Game Commission assigned the CDFG the task of recommending a wetlands definition. CDFG found the USFWS wetland definition and classification system to be the most biologically valid. The CDFG staff use this definition as a guide in identifying wetlands while conducting on-site inspections for the implementation of its Commission's wetlands policy. The California State Water Resources Control Board is in the process of adopting a uniform state wetlands definition based on the Section 404 standards used by the U.S. Army Corps of Engineers in administering Section 404 of the Clean Water Act.

Ephemeral drainage channels with a hydrologic connection to Lake Nacimiento are believed to be jurisdictional under Section 404. Impacts to jurisdictional drainages (Section 404, Clean Water Act) resulting from road crossings are therefore expected to require permits or other authorizations from the USACE, RWQCB, and potentially from CDFG (Fish and Game Code, Sections 1600, *et seq.*).

#### *Flora and fauna:*

Listed plants and animals under the Federal Endangered Species Act (FESA) have certain protections as specified therein (refer to Section 4.0). The United States Fish and Wildlife Service is the agency that regulates activities affecting terrestrial-based, Federally-listed species.

Certain species of nesting birds are protected from disturbance by The Migratory Bird Treaty Act of 1918, (as regulated by the United States Fish and Wildlife Service) and by sections 3503, 3503.5, and 3800 of the California Department of Fish and Game Code. Special protections for bald and golden eagles are also contained in the federal Bald and Golden Eagle Protection Act.

## **5.0 Potential Impacts**

Potential impacts to biological resources from the proposed Project are addressed in this Section, however additional field work and data analysis will be conducted to more accurately assess the specific nature of proposed impacts to sensitive habitats and native trees. For this initial assessment of potential impacts we reviewed the Cantinas Camp Ranch Overall Site Plan sheet C.1 (undated version received 10/6/11) prepared by North Coast Engineering, Inc. and provided in Section 8.0 for reference. Grading plans, bridge construction plans, drainage plans and wastewater plans have not been reviewed for this assessment.

Biological constraints mapped in 2006 were determined to be substantially the same in 2011 (refer to Biological Resource Map in Section 7.0).

At the west end of the Property, the proposed pool area, mill barn, lake cafe, and 20-foot wide service road are situated partially in a grassland area defined as valley needlegrass grassland, a sensitive natural community type. The Paso Robles navarretia, a List 4.3 plant species, also occurs in this location. A staff parking lot is situated in non-native annual grassland habitat east of the sensitive valley needlegrass grassland area.

Access to the east end of the camp area is off Lynch Canyon Road on an existing ranch road. The road would be widened for regular vehicular access. A proposed security building and gate are situated in an opening in foothill woodland habitat, outside the mapped boundary of valley oak woodland.

Camper lodging is proposed in annual grassland habitat surrounded by pine and oak trees. There are no sensitive resources at this location.

The mission complex is situated on a grassy knoll that contains areas of valley needlegrass grassland as well as non-native annual grassland. Paso Robles navarretia occurs in this location.

The celebration arts village consists of four buildings on either side of a main 20-foot wide service road approximately where the existing ranch road passes. The buildings are nestled into openings in a wooded area. In 2011 we noted pine trees had been removed from this area since 2007.

Staff lodging, consisting of 16 studio units, are proposed to the east of the celebration arts village along an existing ranch road in a dense foothill woodland habitat. A large pine tree in the area was used as a roost tree by two juvenile bald eagles in 2011.

A clear-span bridge proposed over Kavanaugh Creek at the northeast corner of the Property would provide secondary access to the site from Oak Shores Drive. The bridge would span the creek entirely and would not impact habitat within the ordinary high water level. Portions of the secondary access road that lie east of the Property boundary were not surveyed and are not included in this impact analysis.

Other project improvements include water tanks, a wastewater system, a pond, chapel, and expected appurtenant features like water and power lines, and various access roads.

## **5.1 Potential Habitat Impacts**

### *5.1.1 Grassland*

Two grassland vegetation associations comprise the grassland community on the Property: annual grassland and valley needlegrass grassland. The proposed Project is expected to permanently remove some areas of annual grassland habitat. Annual grassland habitat that would be affected is comprised of introduced annual grass species. Impacts to annual grassland habitat do not require mitigation except where special status species are affected. Proposed impacts to annual grassland habitat would not result in loss of sensitive habitat for rare plants or animals, nor would it directly impact rare plants or animals.

Valley needlegrass grassland habitat is a sensitive natural community afforded protections by the California Department of Fish and Game. It was mapped in two polygons on the Property, totaling approximately 12 acres. The currently proposed project would permanently remove an estimated 3 to 5 acres of the currently mapped valley needlegrass grassland habitat areas.

### *5.1.2 Foothill woodland*

Foothill woodland habitat occurs in all areas of the Property, and would be impacted by development of the proposed project. The main areas affecting woodland habitat are the celebration arts village and the staff lodging. The project would not affect sensitive valley oak woodland habitat.

### *5.1.3 Chaparral and scrub*

Chaparral and scrub habitats occur on large open slopes and in small patches widely distributed across the Property. The proposed project would not affect chaparral or scrub habitats.

### *5.1.4 Wetland*

A formal wetland delineation has not been conducted for the Property. Road crossings may require temporary or permanent impacts to wetlands and or waters of the United States under the jurisdiction of the U.S. Army Corps of Engineers and/or the Regional Water Quality Control Board. Potential jurisdictional drainages are located near the project areas, particularly along service roads near the mission complex and chapel, with one drainage and potential wetland being located on the west side of the mill barn area.

### *5.1.5 Riparian*

Riparian habitat on the Property is limited to Cantinas Creek. Kavanaugh Creek at the location of the proposed bridge is a jurisdictional drainage but does not contain riparian vegetation. The proposed project would not impact riparian habitat on the Property.

### *5.1.6 Lacustrine*

The aquatic habitat of Lake Nacimiento, described here as lacustrine habitat, occurs within the Property boundaries. Lake access is not expected to result in adverse impacts to aquatic biological resources in the lacustrine habitat.

## **5.2 Potential Oak and Pine Tree Impacts**

The County of San Luis Obispo requires impacts to oak trees with a diameter at breast height (dbh) of 5 inches or greater to be mitigated. Diameter at breast (dbh) is measured at 4.5 feet from the ground or, if the trunk is split below 4 feet, at the narrowest point below the split. Impacts include any ground disturbance within the critical root zone (CRZ), measured as 1.5 times the diameter of the canopy, or any trimming of branches 4 inches in diameter or greater.

Development on the Property would require impacting and removing native oak and pine trees. The extent of tree impacts will require further evaluation. Impacts to native oak and pine trees are generally mitigable (see section 6.2).

## **5.3 Potential Impacts to Common Wildlife**

### *5.3.1 Nesting habitat*

Impacts to or take of nesting birds could occur if grading or tree removal/trimming is conducted during nesting season (March 15 through August 15). Take of common nesting birds is prohibited by federal and state code. Impacts to or take of common nesting birds can be avoided (see section 6.3.1).

### *5.3.2 Reduction of wildlife movement corridors*

Wildlife movement on the Property is highly variable. Small, medium, and large mammals forage widely in many habitats on the Property and beyond. Foraging typically consists of random movements through appropriate habitat in search of suitable prey items or feed. Medium and large-sized mammals such as raccoon, fox, and deer often move between different habitats by distinct trails or movement corridors. Dirt roads may also be used for long-range movements by medium and large sized mammals. On the Property many animals move along the lake shoreline to access foraging areas.

Development of the proposed project would alter the way wildlife species move through the Property. Some local movement corridors within the Property would be affected, but the project would not create significant barriers to wildlife movement in the Lake Nacimiento region.

## **5.4 Potential Impacts to Special Status Plant Species**

Three special status plant species were identified and mapped on Property. A Biological Resource Map is provided in Section 7.0 for reference.

### *5.4.1 Eriastrum luteum*

Yellow-flowered eriastrum (*Eriastrum luteum*) was mapped in one location on the Property in 2006. In 2011 this occurrence was determined to be substantially the same as was reported in 2006, and no additional occurrences were identified on the Property. The yellow-flowered eriastrum occurrence covers 0.9 acres of buckwheat scrub habitat. Plant density within this area varies from year to year, but is generally low. The proposed project would not impact yellow-flowered eriastrum on the Property.

#### *5.4.2 Mucronea californica*

California spineflower (*Mucronea californica*) was mapped in two very small patches on the Property in 2006. In 2011 these occurrences were determined to be substantially the same as reported in 2006, and no additional occurrences were identified on the Property. The proposed project would not impact California spineflower on the Property.

#### *5.4.3 Navarretia jaredii*

Paso Robles navarretia (*Navarretia jaredii*) was mapped in several locations on the Property in 2006. This species occurs in approximately 19.5 acres of annual grassland and valley needlegrass grassland habitats. The largest area of impact to Paso Robles navarretia is the mill barn and pool area at the west end of the Property. Other small impacts could occur from road widening and other construction activities associated with the mission complex, celebration arts village and staff lodging areas.

Recent taxonomic changes to the Paso Robles navarretia are likely to result in removal of this plant from the CNPS rarity list (refer to Section 3.6.4 Q for a detailed discussion of the taxonomic changes). Paso Robles navarretia occurs regularly in appropriate habitat throughout north San Luis Obispo County.

### **5.5 Potential Impacts to Special Status Animal Species**

#### *5.5.1 Bald eagle*

The Property was formerly part of the home range for a breeding pair of bald eagles and their young. The Oak Shores bald eagle pair abandoned their nest near the residential development and have relocated to the south shore of the lake. The Property, however, continues to be used regularly by adult and juvenile bald eagles. It provides suitable roosting and hunting opportunities for year-round residents as well as wintering and migrating bald eagles passing through the area. A bald eagle protocol habitat assessment survey was conducted from 2006 to 2008 to determine the potential for impacts to this species from development on the Property.

There are no occupied or un-occupied bald eagle nests on the Property. Foothill pine trees with appropriate structure to support a bald eagle nest are present. Proposed development on the Property could reduce the potential for bald eagles to nest on the Property in the future, as the local breeding population is continuing to expand. However, the highest quality nesting habitat is located in remote areas of the ranch near the lake shore that are not visible from the proposed project areas.

Bald eagles utilize the quiet backwaters of the Cantinas Creek-Kavanaugh Creek confluence along the eastern Property line for foraging, hunting, and resting (known as “loafing”). In winter the deciduous valley oak trees provide ideal roosting locations when the leaves have fallen. Large prominent foothill pines on the steep east-facing slope overlooking the confluence have also been documented as bald eagle roosts. One large pine is indicated on the Biological Resource Map in Section 7.0 as a known 2011 bald eagle roost tree that is outside the mapped high use areas. We documented many known and potential roost trees along the lake shoreline in 2006. These trees are encompassed within the “high use areas” polygon on the Biological Resource Map.

Development on the Property could result in a decrease in bald eagle activity in the area, and could reduce the potential for bald eagles to nest on the Property in the future.

#### *5.5.2 Special status birds*

Golden eagle, Cooper's hawk, sharp-shinned hawk, white-tailed kite, and great blue heron were not found to be nesting on the Property in 2006 or 2011. Merlins, which could occur on the property in winter, were not observed during our winter surveys. Disturbance and/or take could occur if any of these species nest in proposed project areas in the future. Impacts to or take of special status bird species can be avoided (see section 6.5.2).

#### *5.5.3 California legless lizard*

Appropriate habitat for the California legless lizard is found beneath oak trees and chaparral shrubs in friable soils on the Property. This species was identified on the Property beneath a coast live oak tree at the south end of the ranch near the main body of Lake Nacimiento. Earth-moving activities conducted beneath oak trees or in chaparral and coastal scrub habitats with friable soils could potentially impact legless lizards. Potential impacts to this species can be mitigated (refer to Section 6.5.3).

#### *5.5.4 Coast horned lizard*

The coast horned lizard has been declining in abundance across California for many decades. Contributing to this decline is the loss of habitat in coastal California, the introduction of Argentine ants (*Iridomyrmex humilis*), predation by pets, and collection for the pet trade. Commercial collection was banned in 1981, but until that time large numbers of horned lizards were removed from the wild and sold as pets or as dead curios. Locally, horned lizards have been affected by the spread of introduced weeds, such as yellow star thistle. Horned lizards require bare ground to move and find insect prey.

Habitat suitable for the coast horned lizard occurs on the Property in chaparral, scrub, dry grassland, and rock outcrop habitats. Coast horned lizards were not found on the Property, however they could be present in low numbers. Project activities that disturb chaparral or rocky habitats with open ground could affect coast horned lizard by removing habitat or by directly taking lizards. Potential impacts to this species can be mitigated (refer to Section 6.5.4).

#### *5.5.5 Pallid bat*

Removal of mature trees with trunk cavities or loose bark could impact roosting bats and/or maternal bat colonies. Disturbance of pallid bat or maternity colonies of any bat species can be avoided (refer to Section 6.5.5).

#### *5.5.6 Western pond turtle*

Pond turtles are residents in Lake Nacimiento, and were observed in the Cantinas Creek-Kavanaugh Creek confluence with the lake in 2007. The proposed Project would not affect pond turtles.

#### *5.5.7 Monterey dusky-footed woodrat*

Woodrat nests were observed occasionally in dense chaparral and oak woodland understory on the Property. Development in foothill woodland habitat could potentially affect this species. Potential impacts to this species can be mitigated (refer to Section 6.5.7).

#### *5.5.8 Salinas pocket mouse*

Small mammal trapping was not conducted as part of this study. Salinas pocket mouse is unlikely to occur on the Property.

#### *5.5.9 Western spadefoot toad*

Appropriate habitat for spadefoot toads is present on the Property. Aquatic surveys did not locate this species on the Property in 2006. The currently proposed project is not likely to impact this species.

#### *5.5.10 California red-legged frog*

Habitats on the Property are generally very poorly suited to sustaining a breeding population of red-legged frogs. The California red-legged frog was not observed on the Property during general aquatic surveys conducted in 2006. A protocol survey for red-legged frogs was not conducted as part of this report. Proposed development on the Property would be very unlikely to result in take of the California red-legged frog. The closest reported sighting to the Property is CNDDDB occurrence 315, located 13 miles to the south. However, the watershed of Lake Nacimiento is adjacent to coastal watersheds where CRLF is assumed to occur. CRLF could enter the Lake Nacimiento watershed, but has not been reported from the lake vicinity.

## **6.0 Mitigation Recommendations**

### **6.1 Habitat Mitigations**

#### *6.1.1 Grassland*

Impacts to annual grassland habitat do not require mitigation except where it affects special status species or sensitive natural communities. Impacts to special status species are addressed in Sections 6.4 and 6.5.

Impacts to valley needlegrass grassland, a sensitive natural community, may require mitigation by the County of San Luis Obispo and the CDFG.

We recommend the applicant work with the County to determine a significance threshold that defines valley needlegrass grassland in terms of bunchgrass density and spatial extent. A significance threshold will enable further refinement of the mapped needlegrass grassland habitat polygons with the intent of preparing a final and accurate impact assessment.

**BR-1.** To reduce impacts to valley needlegrass grassland habitat, new needlegrass grassland habitat shall be created at a 1 to 1 ratio (area of created habitat to impacted habitat).

1. A mitigation, monitoring and reporting plan shall be prepared according to County guidelines that locates and quantifies the impacts to valley needlegrass grassland habitat on the Property. The plan shall be reviewed and approved by the County prior to implementation.
2. A mitigation site shall be established on the Property, adjacent to and contiguous with existing needlegrass grassland areas.
3. A conceptual planting plan shall be included in the mitigation, monitoring and reporting plan.
4. Mitigation implementation and success shall be monitored for a minimum of five years. Annual reports that document the recovery of the site shall be prepared and sent to the County by December 15<sup>th</sup> of each year.

#### *6.1.2 Foothill woodland*

The Project would affect foothill woodland habitat. Development areas are primarily located in grassy openings where tree impacts would be minimized. Presently the County of San Luis Obispo does not require specific mitigation for the loss of oak woodland habitat. Impacts to individual oak and pine trees do require mitigation (see section 6.2).

#### *6.1.3 Chaparral and scrub*

The proposed project is not expected to impact chaparral or scrub habitats on the Property; therefore no mitigation is required.

#### *6.1.4 Wetland*

Drainages on the Property may contain wetland habitat that is under the jurisdiction of the U.S. Army Corps of Engineers. A wetland delineation must be completed for the Property if impacts to the drainages are proposed, such as installing culverts or bridges. Culverts and bridges may require permits from the Army Corps of Engineers, California Department of Fish and Game, and certification from the Regional Water Quality Control Board.

Proposed projects should provide for a 50-foot set-back from ephemeral drainages to protect water quality from increased run-off.

#### *6.1.5 Riparian*

The proposed project is not expected to impact riparian habitat on the Property. Future design changes should account for a 100 foot set-back distance from the riparian habitat in Cantinas Creek.

#### *6.1.6 Lacustrine*

The proposed project is not expected to impact lacustrine habitat; therefore no mitigations are recommended.

## 6.2 Oak and Pine Tree Mitigations

If project construction requires impacts or removal of native oak or foothill pine trees, the following mitigation recommendations shall be implemented.

- BR-2.** Native oak and pine tree canopies and trunks within 50 feet of proposed disturbance zones shall be mapped and numbered by a qualified biologist or arborist and a licensed land surveyor. Data collected for each tree shall include diameter at breast height (4.5 feet) of each stem/trunk, canopy diameter, tree height, tree health, and habitat notes (cavities for birds or bats), raptor nests, wood rat nests, and unique features. The tree map shall be used to determine impacts to trees from the project and will inform the mitigation plan.
- BR-3.** A native tree mitigation and monitoring plan shall be prepared for the project according to the County guidelines for mitigation plans. The plan shall be reviewed and approved by the County prior to implementation. The mitigation plan shall incorporate the most current County standards for mitigating impacts to oak and pine trees, and oak woodland habitat.
- BR-4.** Impacts to tree canopies or root zones shall be avoided where practicable. Impacts include any ground disturbance within 1.5 times the diameter of the canopy drip-line.
- BR-5.** Impacts to native trees shall be mitigated by planting additional trees on site. Oaks removed shall be replaced in kind at a 4:1 ratio. Oaks impacted shall be replaced in kind at a 2:1 ratio. Foothill pines removed shall be replaced at a 1:1 ratio if the diameter at breast height is five inches or greater. Replacement trees shall be of one gallon size, of local origin, and of the same species as was impacted. Replacement trees shall be seasonally maintained (browse protection, weed reduction and irrigation, as needed) and monitored annually for at least seven years.

## 6.3 Common Wildlife Mitigations

### 6.3.1 Nesting habitat

Migratory non-game native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory non-game birds (as listed under the Federal MBTA).

- BR-6.** Within one week of ground disturbance or tree removal/trimming activities, if work occurs between March 15 and August 15, nesting bird surveys shall be conducted. To avoid impacts to nesting birds, grading and construction activities that affect trees and grasslands shall not be conducted during the breeding season from March 15 to August 15. If construction activities must be conducted during this period, nesting bird surveys shall take place within one week of habitat disturbance. If surveys do not locate nesting

birds, construction activities may be conducted. If nesting birds are located, no construction activities shall occur within 100 feet of nests until chicks are fledged. Construction activities shall observe a 300-foot buffer for occupied raptor nests. A 500-foot buffer shall be observed from occupied nests of all special status species (see BR-7 and 8). A half-mile development set-back shall be observed for occupied bald eagle nests. A pre-construction survey report shall be submitted to the lead agency immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements.

#### 6.3.2 *Reduction of wildlife movement corridors*

Impacts to significant wildlife movement corridors are not anticipated from the proposed project; therefore no mitigation is recommended.

### 6.4 Mitigations for Special Status Plant Species

Paso Robles navarretia is the only plant species listed by CNPS that occurs in proposed Project areas. Because of the low threat rank of this species, new taxonomic changes to the taxon that may result in the removal of this species from the CNPS listing system, and presence of the species elsewhere on the Property, we do not recommend any mitigation for impacts to this species.

### 6.5 Mitigations for Special Status Animal Species

#### 6.5.1 *Bald eagle*

Bald eagles are not currently nesting, as of the 2011 nesting season, on the Property or within a half mile of the Property boundary; therefore no mitigation is proposed at this time. Additional development restrictions may encompass protection of large trees used regularly as roosts, or of trees that have appropriate structure as nest sites.

#### 6.5.2 *Special status birds*

Pre-construction bird surveys are required within one week of ground disturbance or tree trimming or removal if conducted from March 15 through August 15 (see BR-6). If occupied nests of special status birds are present, the following additional mitigation recommendations shall be implemented:

**BR-7.** All occupied nests shall be mapped using GIS or survey equipment. The mapped locations shall be placed on a copy of the grading plans with a 500-foot buffer indicated. The buffer zone shall be delineated on the ground with orange construction fencing where it overlaps work areas.

**BR-8.** Occupied nests of special status bird species that are within 500 feet of project work areas shall be monitored bi-monthly through the nesting season to document nest success, check for project compliance with buffer zone maintenance, and to monitor the effectiveness of the buffer.

### 6.5.3 *California legless lizard*

California legless lizard occurs on the Property in areas of sandy soil and leaf litter. To minimize potential impacts to this species, the following mitigation measure is recommended:

**BR-9.** Presence or absence of legless lizards shall be determined by pre-construction surveys within the project areas where ground disturbance will occur in potential legless lizard habitat. The pre-construction survey shall be conducted by a qualified biologist familiar with legless lizard ecology and survey methods. The scope of the survey shall be determined by a qualified biologist and shall be sufficient to determine presence or absence in the project areas. Any legless lizards found in project areas shall be moved to an appropriate location outside the construction limits.

### 6.5.4 *Coast horned lizard*

Appropriate habitat was identified on the Property for horned lizards. The most likely areas to be inhabited are chaparral and scrub slopes, and the rocky areas at the south end of the Property. There presently is no survey protocol adopted by CDFG for coast horned lizard.

**BR-10.** A focused pre-construction survey for coast horned lizard shall be conducted on the Property prior to construction. The survey should be conducted on foot by qualified biologist(s) during the peak activity period from April through September. If the focused survey results are negative, a letter report shall be submitted to the County, and no further action shall be required. If horned lizards are found to be present on the Property, the following steps shall be taken:

- Potential horned lizard habitat shall be identified by the project biologist and mapped on all site and grading plans.
- Horned lizards shall be captured by hand by the project biologist and relocated to an appropriate location well outside the project areas.
- Construction monitoring shall be required for all new ground-breaking activities located within the mapped potential horned lizard habitat. Construction monitors shall capture and relocate horned lizards as specified above.

### 6.5.5 *Pallid bat*

Roosting bats and/or maternal bat colonies may be present in trees with appropriate cavities or loose bark.

**BR-11.** Prior to removal of any trees over 20 inches dbh, a survey shall be conducted by a qualified biologist to determine if any of the trees proposed for removal or trimming harbor sensitive bat species or maternal bat colonies. Maternal bat colonies may not be disturbed.

*6.5.6 Western pond turtle*

Western pond turtle is not expected to occur in the project areas; therefore no mitigation is required.

*6.5.7 Monterey dusky-footed woodrat*

**BR-12.** A pre-construction survey shall be conducted on the Property to locate Monterey dusky-footed woodrat nests within 50 feet of project areas. The survey shall be conducted within 30 days of starting any grading, grubbing, or oak tree removal. Orange construction fencing shall be installed under the direction of a project biologist in a manner sufficient to protect the nests from construction equipment. A pre-construction survey letter report shall be submitted to the lead agency for review immediately after completion of the survey.

*6.5.8 Salinas pocket mouse*

Salinas pocket mouse is unlikely to occur on the Property. No recommendations are made for this species.

*6.5.9 Western spadefoot toad*

Western spadefoot toad was not observed on the Property; therefore no mitigation is required.

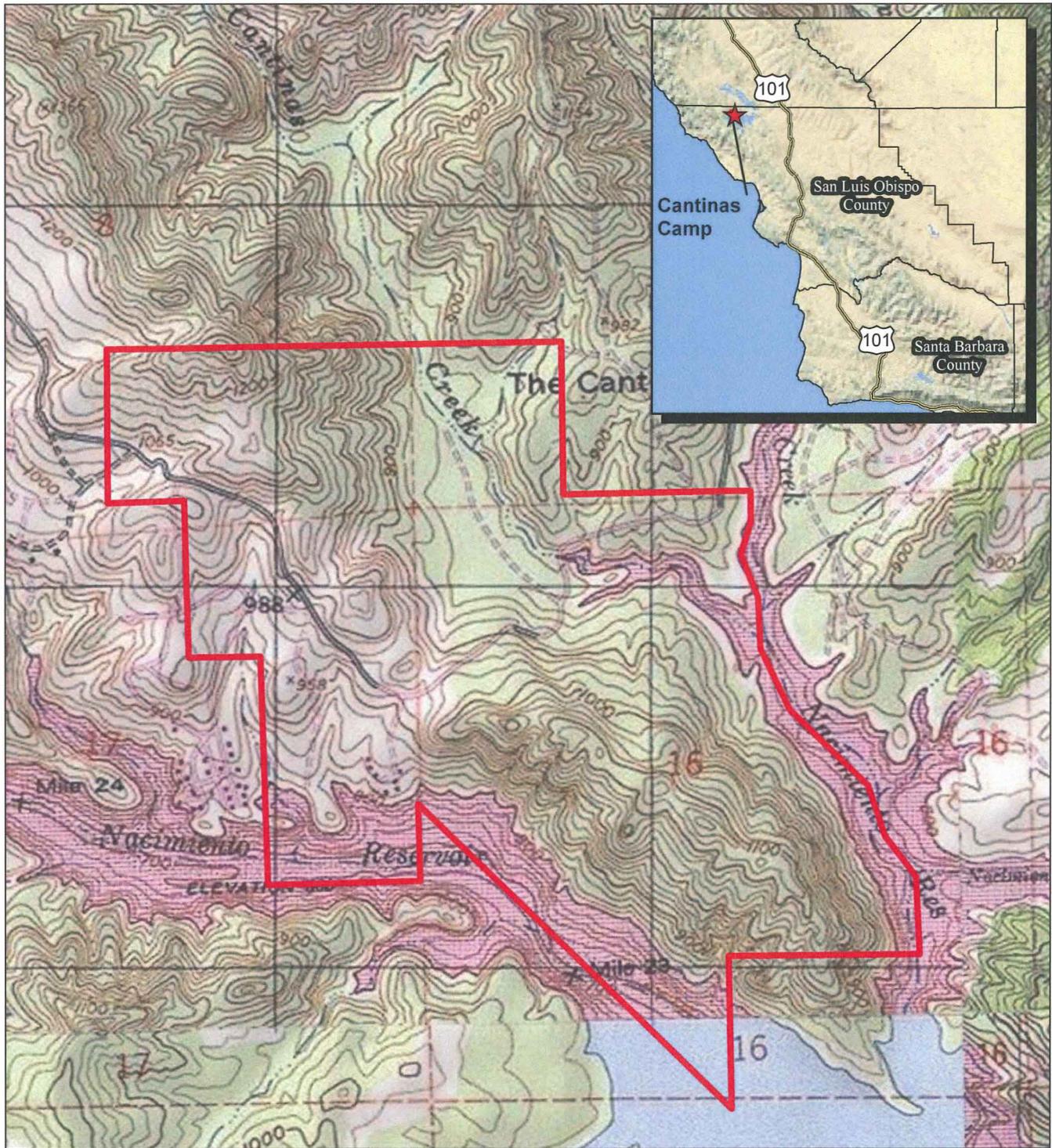
*6.5.10 California red-legged frog*

Potential habitat for California red-legged frog is very poor on the Property. CRLF has not been reported from the vicinity (within five miles) of Lake Nacimiento, therefore no mitigation is recommended.

## **7.0 Figures**

- **Figure 1. USGS Topographic Map**
- **Figure 2. Aerial Photograph**
- **Figure 3. USDA Soils Map**
- **Figure 4. CNDDDB GIS Map**
- **Cantinas Camp Habitat Map**
- **Cantinas Camp Biological Constraints Map**

# Figure 1. USGS Topographic Map



### Legend

 Cantinas Parcel Boundary

0 0.125 0.25 0.5  
Mile



# Figure 2. Aerial Photograph



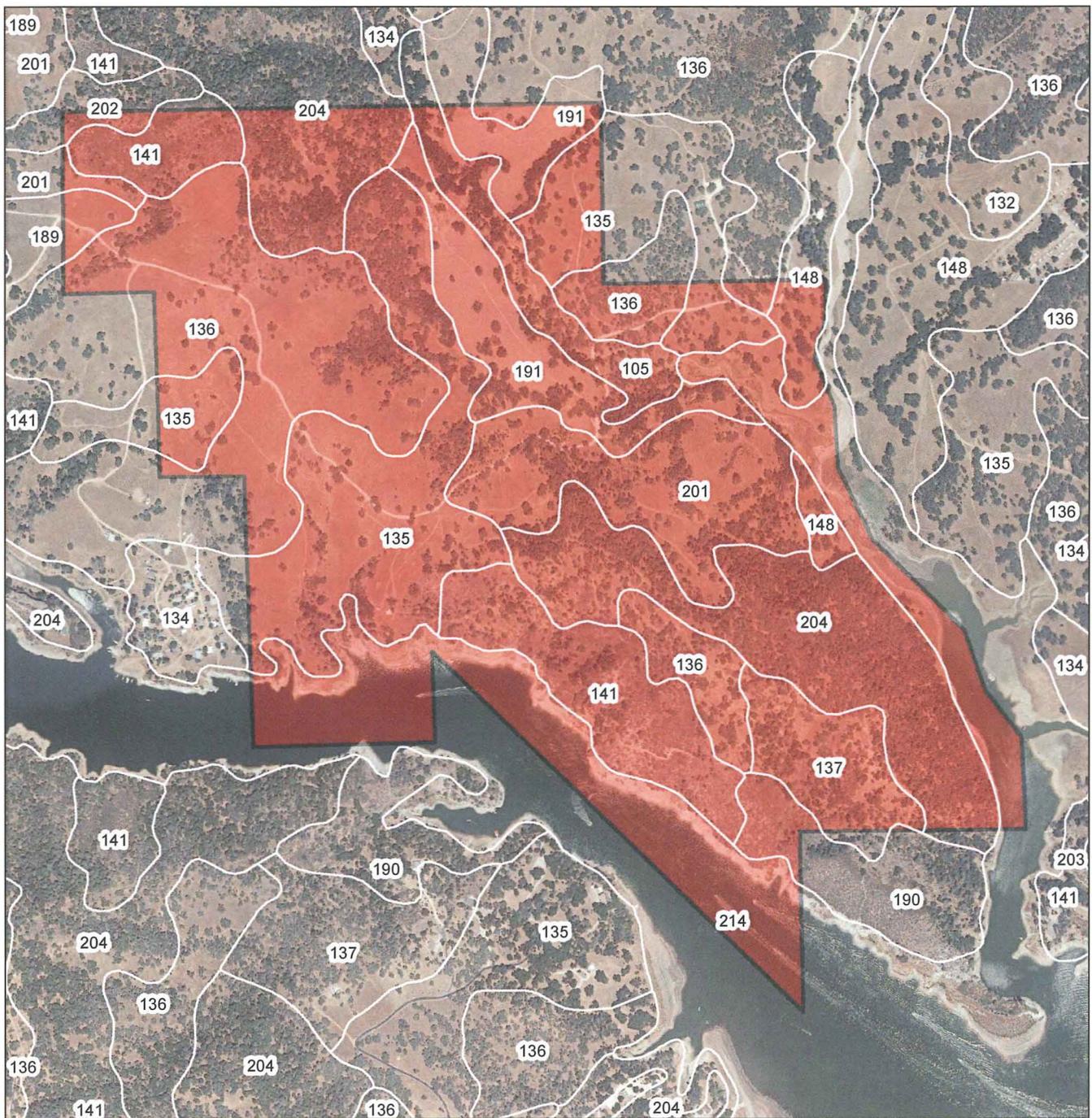
### Legend

 Cantinas Parcel Boundary

0 0.125 0.25 0.5  
Mile



# Figure 3. USDA Soils Map

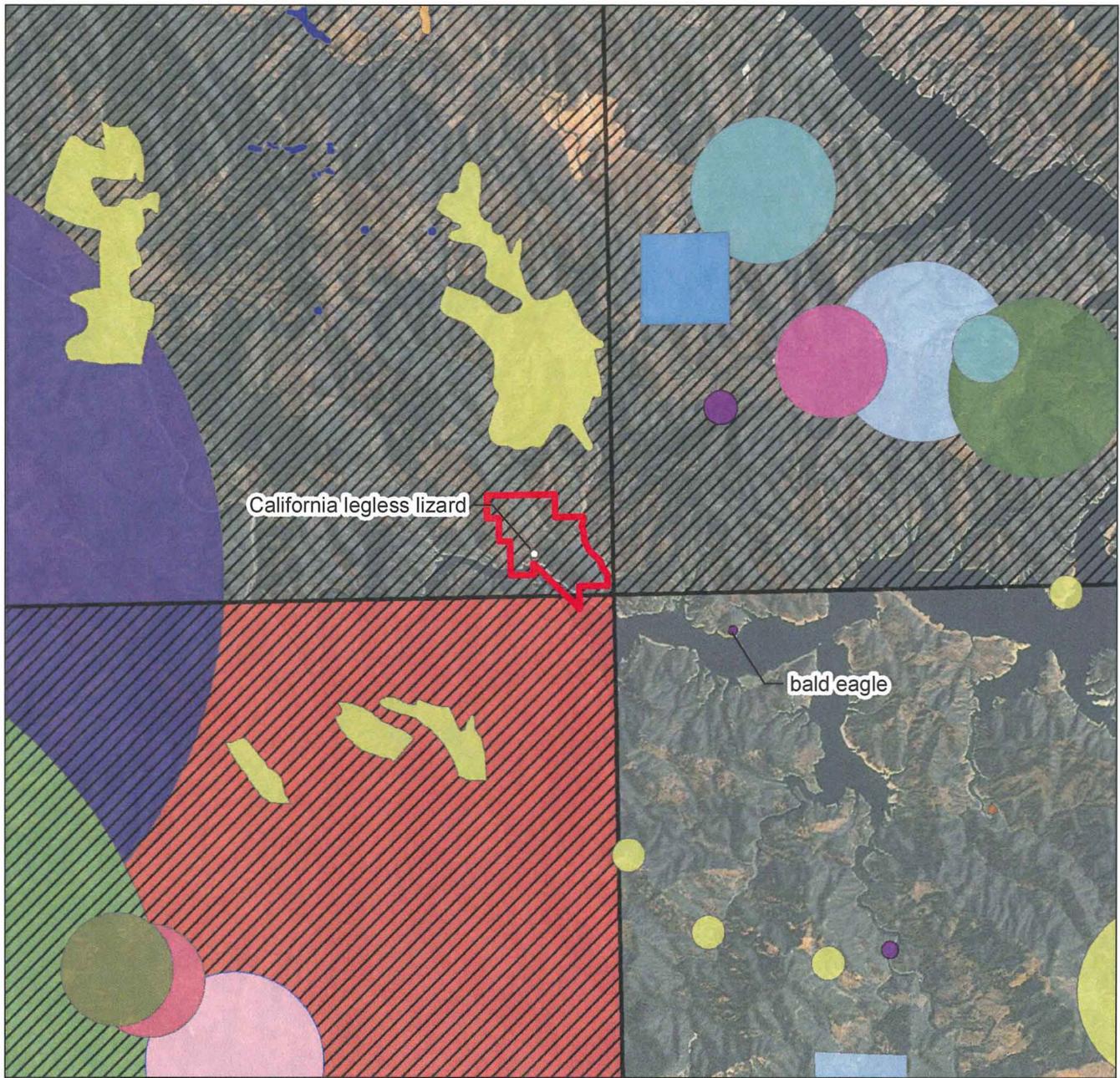


- Cantinas Parcel Boundary
- 105: Arbutle-Positas Complex
- 135-137: Dibble Clay Loam
- 141/190: Gaviota-Rock Outcrop Complex
- 148: Hanford and Greenfield Fine Sandy Loams

- 189: Rincon Clay Loam
- 191: Ryer Clay Loam
- 201: Shimmon Loam
- 204: Shimmon-Dibble Association
- 214: Water

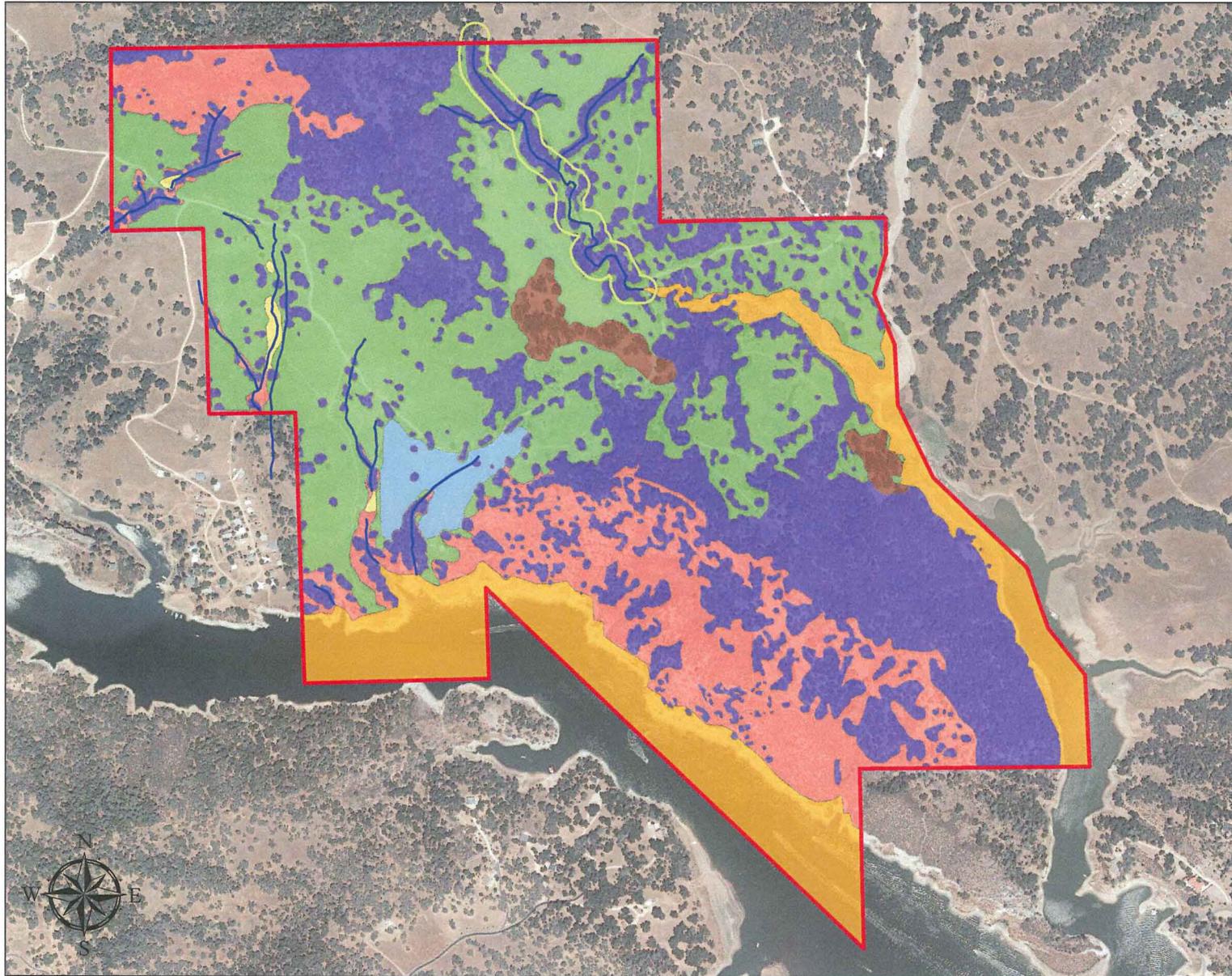


# Figure 4. CNDDDB Map



- |                             |                             |                           |
|-----------------------------|-----------------------------|---------------------------|
| Cantina Parcel Boundary     | Robbins' nemacladus         | pale-yellow layia         |
| Abbott's bush-mallow        | San Luis Obispo sedge       | prairie falcon            |
| Arroyo de la Cruz manzanita | Valley Oak Woodland         | round-leaved filaree      |
| California red-legged frog  | bald eagle                  | California legless lizard |
| Cook's triteleia            | dwarf calycadenia           | western pond turtle       |
| Davidson's bush-mallow      | late-flowered mariposa-lily | yellow-flowered eriastrum |
| Lemmon's jewel-flower       | most beautiful jewel-flower |                           |





# Habitat Map

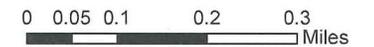
Cantinas Camp Project  
Cantinas Ranch Foundation

## Legend

- Cantinas Parcel Boundary
- Riparian Setback
- Ephemeral Drainages
- Chaparral and Scrub
- Foothill Woodland
- Grassland
- Lacustrine
- Potential Wetland
- Riparian
- Valley Needlegrass Grassland
- Valley Oak Woodland

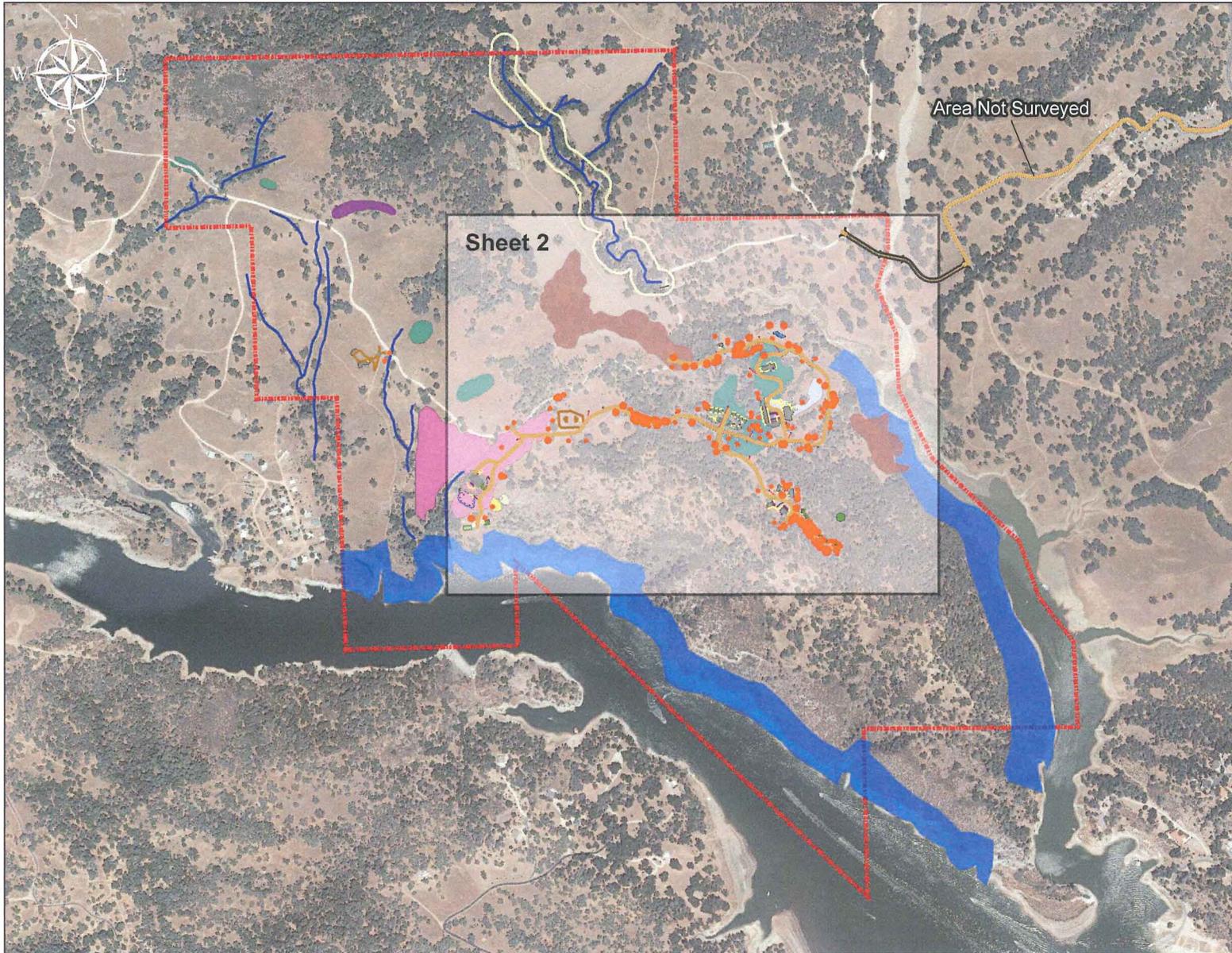


2010 San Luis Obispo County  
NAIP Aerial Photography  
Map Updated: October 07, 2011, 01:23 PM



Althouse and Meade, Inc.  
1602 Spring Street  
Paso Robles, CA 93446





# Biological Resource Map

Cantinas Camp Project  
Cantinas Ranch Foundation

- Camp Parcel Boundary
- Riparian Setback
- Ephemeral Drainages
- Bald Eagle - high use areas
- Yellow-flowered Eriastrum - CNPS List 1B.2
- California Spineflower - CNPS List 4.2
- Paso Robles Navarretia - CNPS List 4.3
- California Legless Lizard - SSC
- Valley Needlegrass Grassland
- Valley Oak Woodland
- Valley Needlegrass Grassland Navarretia jaredii
- Potentially Affected Trees

Sheet 1 of 2

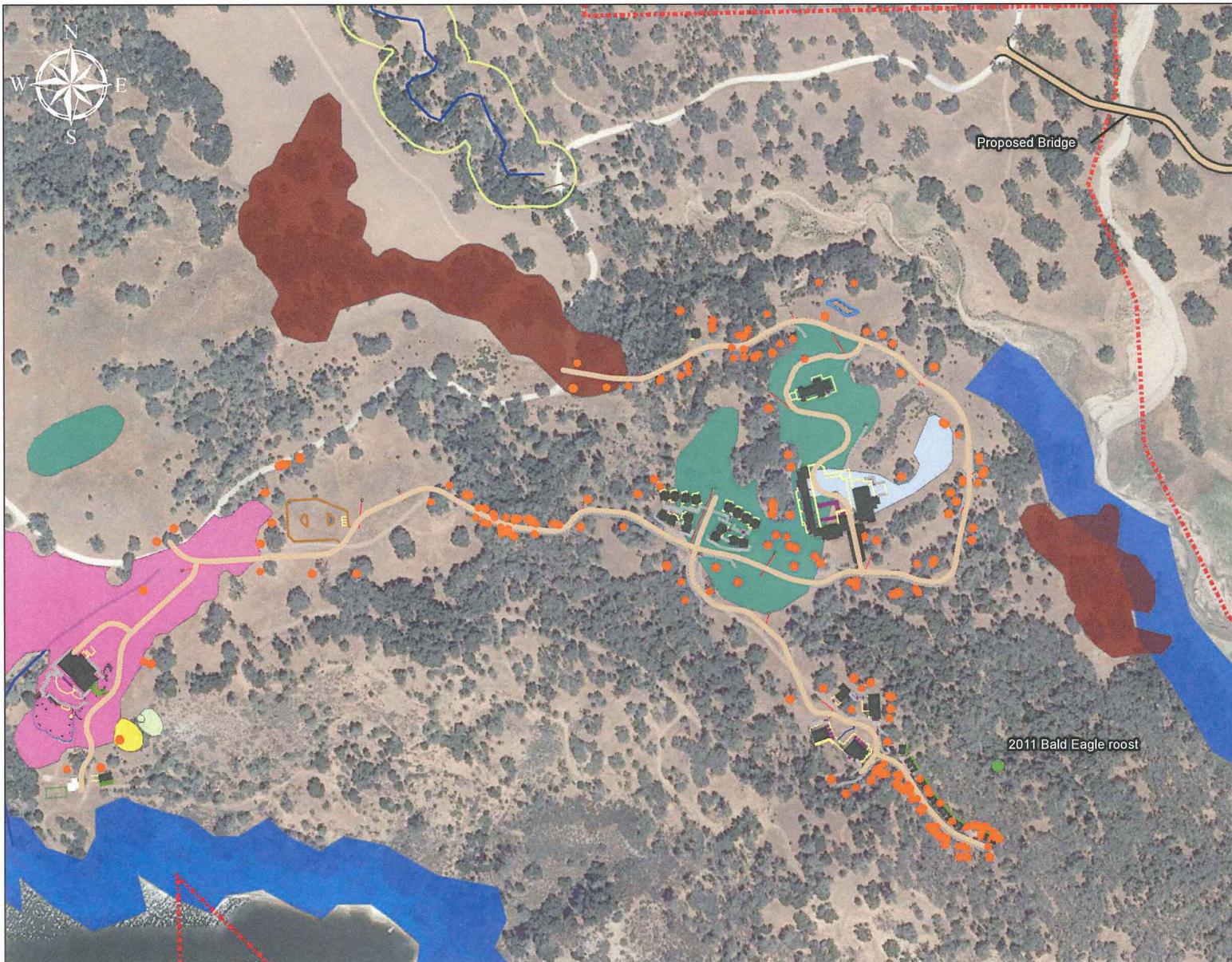


2010 San Luis Obispo County  
NAIP Aerial Photography  
Map Updated: October 10, 2011, 12:28 PM



Althouse and Meade, Inc.  
1602 Spring Street  
Paso Robles, CA 93446





# Biological Resource Map

Cantinas Camp Project  
Cantinas Ranch Foundation

- Camp Parcel Boundary
- Riparian Setback
- Ephemeral Drainages
- Bald Eagle - high use areas
- Yellow-flowered Eriastrum - CNPS List 1B.2
- California Spineflower - CNPS List 4.2
- Paso Robles Navarretia - CNPS List 4.3
- California Legless Lizard - SSC
- Valley Needlegrass Grassland
- Valley Oak Woodland
- Valley Needlegrass Grassland Navarretia jaredii
- Potentially Affected Trees

Sheet 2 of 2



2010 San Luis Obispo County  
NAIP Aerial Photography  
Map Updated: October 07, 2011, 12:01 PM



Althouse and Meade, Inc.  
1602 Spring Street  
Paso Robles, CA 93446



## **8.0 Site Plan**

- **Cantinas Ranch Camp Overall Site Plan, Sheet C.1**







## 9.0 References

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## **APPENDIX A – Photographs**



Photo 1. View south of the Property, with Lake Nacimiento in the background. Chaparral (foreground), grassland, and foothill woodlands are the dominant habitat types on the Property.



Photo 2. View south of the Kavanaugh Creek (enters at left) and Cantinas Creek (at right) confluence. Bald eagles forage and roost in trees in this area. Photo taken in May 2006.



Photo 3. An adult bald eagle roosts in a valley oak tree along on the shoreline of Lake Nacimiento (note arrow) on the Property.

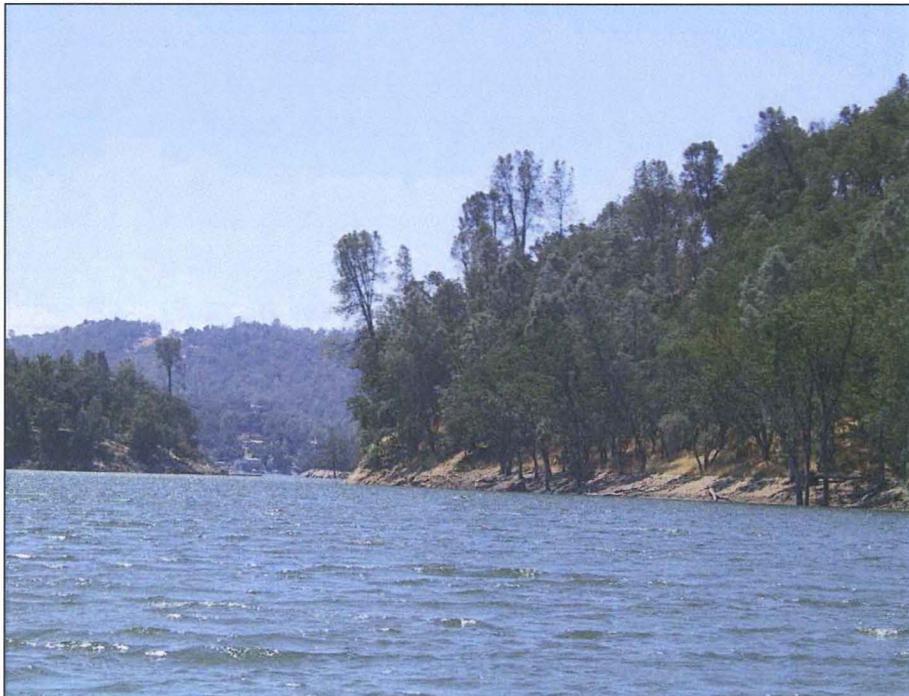


Photo 4. Potential bald eagle roosting habitat on Property shoreline at the confluence of Cantinas and Kavanaugh Creeks.



Photo 5. View east of annual grassland (foreground) and needlegrass grassland (background) habitats at the south end of the Property.



Photo 6. Drainages on the Property are ephemeral or seasonal, with oak and pine canopies. Willows are uncommon.



Photo 7. This pond was created by the crossing of Lynch Canyon Road over an ephemeral drainage. Photo taken May 20, 2006.



Photo 8. Yellow-flowered eriastrum (*Eriastrum luteum*) photographed on the Property on June 7, 2006.



Photo 9. California legless lizard (*Anniella pulchra*) photographed on the Property on May 23, 2006.

## **APPENDIX B – CNDDDB Reports**

- **Silvery Legless Lizard (*Anniella pulchra pulchra*)**
- **Yellow-flowered Eriastrum (*Eriastrum luteum*)**
- **Valley Needlegrass Grassland**
- **Valley Oak Woodland**

### California Native Species Field Survey Form

Mail to:  
**Natural Diversity Database**  
 California Department of Fish and Game  
 1807 13<sup>th</sup> Street, Suite 202  
 Sacramento, CA 95814

*For Office Use Only*

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
 Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
 EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

**Date of Field Work:** 5 - 23 - 2006  
month (mm) date (dd) year (yyyy)

**Scientific Name:** Aniella pulchra pulchra  
**Common Name:** Silvery Legless Lizard

<p><b>Species Found?</b> <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <small>If not, why?</small></p> <p>Total No. Individuals <u>2</u> Subsequent Visit? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no</p> <p>Is this an existing NDDDB occurrence? <input checked="" type="checkbox"/> no <input type="checkbox"/> unk.  <small>Yes, Occ. #</small></p> <p>Collection? If yes: _____  <small>Number Museum / Herbarium</small></p>	<p><b>Reporter:</b> <u>Jason Dart</u></p> <p><b>Address:</b> <u>Althouse and Meade, Inc.</u>  <u>1875 Wellsona Road Paso Robles, CA 93446</u></p> <p><b>Email Address:</b> <u>jason@althouseandmeade.com</u></p> <p><b>Phone:</b> (805) <u>467-1041</u></p>
---	---

<p style="text-align: center;"><b>Plant Information</b></p> <p>Phenology: _____  <small>% vegetative % flowering % fruiting</small></p>	<p style="text-align: center;"><b>Animal Information</b></p> <p>Age Structure: <u>2</u>  <small># adults # juveniles # unknown</small></p> <p><input type="checkbox"/> breeding <input type="checkbox"/> wintering <input type="checkbox"/> burrow site <input type="checkbox"/> rookery <input type="checkbox"/> nesting <input type="checkbox"/> other</p>
---	--

**Location (please also attach or draw map on back)**  
 Lynch Ranch, northwest shore of Lake Nacimiento, San Luis Obispo County, California

County: San Luis Obispo Landowner / Mgr.: Private

Quad Name: Bryson Elevation: 870'

T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_

UTM: Zone: \_\_\_\_\_ (10, 11) Datum: NAD 27 (NAD83, NAD27, WG584, other)

Source: USGS topo software (GPS, map & type, etc.) Point Accuracy: \_\_\_\_\_ Meters

UTM Coordinates N35.75617/W121.01584

**Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope)**  
 Two adult silvery legless lizards were found beneath an old car mat under a coast live oak tree (Quercus agrifolia). The soil type is Gaviota-Rock complex (USDA Soil Survey of San Luis Obispo County, 1983), a sandy gravelly loam. The lizards were located at the convergence of a valley needlegrass grassland (Nassella pulchra), rocky chaparral, and mixed pine-oak woodland (Pinus sabiniana, Quercus agrifolia, Q. douglasii, Q. lobata).

Other rare species? Pale yellow layia (Layia heterotricha) located outside the live oak canopy edge.

**Site Information** Overall site quality:  Excellent  Good  Fair  Poor

Current / surrounding land use: Abandoned mobile home and ranch roads. Historically grazed, but not presently.

Visible disturbances / possible threats: Future development. No project proposed at this time.

Comments: Uncertain of extent of occurrence, but appropriate habitat and soil type are widespread in the vicinity.

<p><b>Determination:</b> (check one or more, and fill in blanks)</p> <p><input type="checkbox"/> Keyed (cite reference) _____</p> <p><input type="checkbox"/> Compared with specimen housed at: _____</p> <p><input type="checkbox"/> Compared with photo / drawing in: _____</p> <p><input type="checkbox"/> By another person (name): _____</p> <p><input type="checkbox"/> Other: _____</p>	<p><b>Photographs:</b> (check one or more)</p> <table style="width: 100%;"> <tr> <td></td> <td style="text-align: center;">Slide</td> <td style="text-align: center;">Print</td> </tr> <tr> <td>Plant / animal</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>Habitat</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>Diagnostic feature</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> <p>May we obtain duplicates at our expense? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no</p>		Slide	Print	Plant / animal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Diagnostic feature	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Slide	Print											
Plant / animal	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
Diagnostic feature	<input type="checkbox"/>	<input checked="" type="checkbox"/>											

FG/WHDAB/1747 Rev.1109

### California Native Species Field Survey Form

Mail to:  
**Natural Diversity Database**  
**California Department of Fish and Game**  
 1807 13<sup>th</sup> Street, Suite 202  
 Sacramento, CA 95814

*For Office Use Only*

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
 Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
 EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

**Date of Field Work:** 6 - 7 - 2006  
month (mm) date (dd) year (yyyy)

**Scientific Name:** Eriastrum luteum

**Common Name:** Yellow-flowered eriastrum

<p><b>Species Found?</b> <input checked="" type="checkbox"/> yes <input type="checkbox"/> no _____  <small>If not, why?</small></p> <p>Total No. Individuals: <u>400</u> Subsequent Visit? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no</p> <p>Is this an existing NDDDB occurrence? <input checked="" type="checkbox"/> no <input type="checkbox"/> unk.  <small>Yes, Occ. #</small></p> <p>Collection? If yes: _____  <small>Number Museum / Herbarium</small></p>	<p><b>Reporter:</b> <u>Jason Dart</u></p> <p><b>Address:</b> <u>Althouse and Meade, Inc.</u>  <u>1875 Wellsona Road Paso Robles, CA 93446</u></p> <p><b>Email Address:</b> <u>jason@althouseandmeade.com</u></p> <p><b>Phone:</b> (805) <u>467-1041</u></p>
<p style="text-align: center;"><b>Plant Information</b></p> <p>Phenology: <u>100.00</u>  <small>% vegetative % flowering % fruiting</small></p>	<p style="text-align: center;"><b>Animal Information</b></p> <p>Age Structure: _____  <small># adults # juveniles # unknown</small></p> <p style="text-align: center;"> <input type="checkbox"/> breeding               <input type="checkbox"/> wintering               <input type="checkbox"/> burrow site               <input type="checkbox"/> rookery               <input type="checkbox"/> nesting               <input type="checkbox"/> other         </p>

**Location (please also attach or draw map on back)**  
Lynch Ranch, northwest shore of Lake Nacimiento, San Luis Obispo County, California

County: San Luis Obispo Landowner / Mgr.: Private

Quad Name: Bryson Elevation: 1090'

T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_

UTM: Zone: \_\_\_\_\_ (10, 11) Datum: NAD 27 (NAD83, NAD27, WG584, other)

Source: USGS topo software (GPS, map & type, etc.) Point Accuracy: \_\_\_\_\_ Meters

UTM Coordinates N35.76286 / W121.02064

**Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope)**  
Baren areas between California buckwheat shrubs (Eriogonum fasciculatum), with scattered foothill pines (Pinus sabiniana) on a south-facing slope. Deerweed (Lotus scoparius), coastal sagebrush (Artemisia californica), and annual grasses also present. Mapped within the Dibble clay loam soil type (USDA, Soil Survey of San Luis Obispo County, 1983).

Other rare species? \_\_\_\_\_

**Site Information** Overall site quality:  Excellent  Good  Fair  Poor

Current / surrounding land use: Historically grazed, but not presently.

Visible disturbances / possible threats: Future development. No project proposed at this time.

Comments: \_\_\_\_\_

<p><b>Determination:</b> (check one or more, and fill in blanks)</p> <p><input checked="" type="checkbox"/> Keyed (cite reference): <u>Jepson Manual</u></p> <p><input checked="" type="checkbox"/> Compared with specimen housed at: <u>R.F. Hoover Herbarium, Cal Poly</u></p> <p><input type="checkbox"/> Compared with photo / drawing in: _____</p> <p><input type="checkbox"/> By another person (name): _____</p> <p><input type="checkbox"/> Other: _____</p>	<p><b>Photographs:</b> (check one or more)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Plant / animal</td> <td style="width: 10%;">Slide <input type="checkbox"/></td> <td style="width: 30%;">Print <input checked="" type="checkbox"/></td> </tr> <tr> <td>Habitat</td> <td>Slide <input type="checkbox"/></td> <td>Print <input checked="" type="checkbox"/></td> </tr> <tr> <td>Diagnostic feature</td> <td>Slide <input type="checkbox"/></td> <td>Print <input checked="" type="checkbox"/></td> </tr> </table> <p>May we obtain duplicates at our expense? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no</p>	Plant / animal	Slide <input type="checkbox"/>	Print <input checked="" type="checkbox"/>	Habitat	Slide <input type="checkbox"/>	Print <input checked="" type="checkbox"/>	Diagnostic feature	Slide <input type="checkbox"/>	Print <input checked="" type="checkbox"/>
Plant / animal	Slide <input type="checkbox"/>	Print <input checked="" type="checkbox"/>								
Habitat	Slide <input type="checkbox"/>	Print <input checked="" type="checkbox"/>								
Diagnostic feature	Slide <input type="checkbox"/>	Print <input checked="" type="checkbox"/>								

FG/WH/DAB/1747 Rev.1189

### California Native Species Field Survey Form

Mail to:  
**Natural Diversity Database**  
 California Department of Fish and Game  
 1807 13<sup>th</sup> Street, Suite 202  
 Sacramento, CA 95814

*For Office Use Only*

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
 Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
 EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

**Date of Field Work:** 6 - 7 - 2006  
month (mm) date (dd) year (yyyy)

**Scientific Name:** \_\_\_\_\_  
**Common Name:** Valley Needlegrass Grassland

**Species Found?**  yes  no \_\_\_\_\_  
If not, why?

Total No. Individuals \_\_\_\_\_ Subsequent Visit?  yes  no  
 Is this an existing NDDB occurrence?  no  unk.  
Yes, Occ. #

Collection? If yes: \_\_\_\_\_  
Number Museum / Herbarium

**Reporter:** Jason Dart  
**Address:** Althouse and Meade, Inc.  
1875 Wellsona Road Paso Robles, CA 93446

**Email Address:** jason@althouseandmeade.com  
**Phone:** (805) 467-1041

**Plant Information**

Phenology: \_\_\_\_\_  
% vegetative % flowering % fruiting

**Animal Information**

Age Structure: \_\_\_\_\_  
# adults # juveniles # unknown  
 breeding  wintering  burrow site  rookery  nesting  other

**Location (please also attach or draw map on back)**  
 Lynch Ranch, northwest shore of Lake Nacimiento, San Luis Obispo County, California

County: San Luis Obispo Landowner / Mgr.: Private

Quad Name: Bryson Elevation: 870'-1010'

T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_

UTM: Zone: \_\_\_\_\_ (10, 11) Datum: NAD 27 (NAD83, NAD 27, WG5 84, other)

Source: USGS topo software (GPS, map & type, etc.) Point Accuracy: \_\_\_\_\_ Meters

UTM Coordinates N35.75647 / W121.01680 (10.9 acres) and N35.75481 / W121.00571 (1.1 acres)

**Habitat Description** (plant communities, dominants, associates, substrates/soils, aspects/slope)  
 Approximately 12.0 acres of valley needlegrass grassland habitat were mapped in two areas of the property, 10.9 acres and 1.1 acres each (see attached map). The dominant grass species is purple needlegrass (*Nassella pulchra*). Common wildflowers include yellow mariposa lily (*Calochorus lutea*), brodiaea (*Brodiaea terrestris*), and Paso Robles navaretia (*Navaretia jaredii*).

Other rare species? Paso Robles navaretia (*Navaretia jaredii*)

**Site Information** Overall site quality:  Excellent  Good  Fair  Poor

Current / surrounding land use: Historically grazed, but not presently.

Visible disturbances / possible threats: Future development No project proposed at this time.

Comments: \_\_\_\_\_

**Determination:** (check one or more, and fill in blanks)

Keyed (cite reference): \_\_\_\_\_

Compared with specimen housed at: \_\_\_\_\_

Compared with photo / drawing in: \_\_\_\_\_

By another person (name): \_\_\_\_\_

Other: \_\_\_\_\_

**Photographs:** (check one or more)

	Slide	Print
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense?  yes  no

FG/WHDB/11747 Rev.1189

### California Native Species Field Survey Form

Mail to:  
**Natural Diversity Database**  
 California Department of Fish and Game  
 1807 13<sup>th</sup> Street, Suite 202  
 Sacramento, CA 95814

*For Office Use Only*

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
 Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
 EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

**Date of Field Work:** 6 - 7 - 2006  
month (mm) date (dd) year (yyyy)

**Scientific Name:** \_\_\_\_\_  
**Common Name:** Valley Oak Woodland

<p><b>Species Found?</b> <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <span style="float: right;">If not, why? _____</span></p> <p>Total No. Individuals _____ Subsequent Visit? <input type="checkbox"/> yes <input type="checkbox"/> no</p> <p>Is this an existing NDDDB occurrence? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> unk.  <span style="float: right;">Yes, Occ. # _____</span></p> <p>Collection? If yes: _____  <span style="float: right;">Number _____ Museum / Herbarium _____</span></p>	<p><b>Reporter:</b> <u>Jason Dart</u></p> <p><b>Address:</b> <u>Althouse and Meade, Inc.</u>  <u>1875 Wellsona Road Paso Robles, CA 93446</u></p> <p><b>Email Address:</b> <u>jason@althouseandmeade.com</u></p> <p><b>Phone:</b> (805) <u>467-1041</u></p>
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<p style="text-align: center;"><b>Plant Information</b></p> <p>Phenology: _____  <small>% vegetative    % flowering    % fruiting</small></p>	<p style="text-align: center;"><b>Animal Information</b></p> <p>Age Structure: _____  <small># adults    # juveniles    # unknown</small></p> <p style="text-align: center;"> <input type="checkbox"/> breeding    <input type="checkbox"/> wintering    <input type="checkbox"/> burrow site    <input type="checkbox"/> rookery    <input type="checkbox"/> nesting    <input type="checkbox"/> other         </p>
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**Location (please also attach or draw map on back)**  
 Lynch Ranch, northwest shore of Lake Nacimiento, San Luis Obispo County, California

County: San Luis Obispo      Landowner / Mgr.: Private

Quad Name: Bryson      Elevation: 810'-850'

T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_

UTM: Zone: \_\_\_\_\_ (10, 11)      Datum: NAD 27 (NAD83, NAD27, WGS84, other)

Source: USGS topo software (GPS, map & type, etc.)      Point Accuracy: \_\_\_\_\_ Meters

UTM Coordinates N35 76008 / W121 01338 (8.1 acres) and N35 75725 / W121 00589 (2.6 acres)

**Habitat Description** (plant communities, dominants, associates, substrates/soils, aspects/slope)  
 Approximately 10.7 acres of valley oak woodland habitat were mapped in two areas of the property, 8.1 acres and 2.6 acres each (see attached map). Mixed species foothill woodland habitat occurs across the property, but pure stands of valley oak woodland occur only in flat alluvial meadows in two locations on the property. The understory is composed of annual and perennial grasses with a variety of native forbs, very little shrub cover.

Other rare species? No rare plants were identified from within the valley oak woodland habitat on site.

**Site Information** Overall site quality:  Excellent  Good  Fair  Poor

Current / surrounding land use: Historically grazed, but not presently.

Visible disturbances / possible threats: Future development. No project proposed at this time.

Comments: \_\_\_\_\_

<p><b>Determination:</b> (check one or more, and fill in blanks)</p> <p><input type="checkbox"/> Keyed (cite reference): _____</p> <p><input type="checkbox"/> Compared with specimen housed at: _____</p> <p><input type="checkbox"/> Compared with photo / drawing in: _____</p> <p><input type="checkbox"/> By another person (name): _____</p> <p><input type="checkbox"/> Other: _____</p>	<p><b>Photographs:</b> (check one or more)      Slide      Print</p> <p>Plant / animal      <input type="checkbox"/>      <input type="checkbox"/></p> <p>Habitat      <input type="checkbox"/>      <input checked="" type="checkbox"/></p> <p>Diagnostic feature      <input type="checkbox"/>      <input type="checkbox"/></p> <p>May we obtain duplicates at our expense? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no</p>
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FG/WHDA8/1747 Rev.11/89

## **APPENDIX C – Bald Eagle Observation Database**

TABLE C-1. BALD EAGLE OBSERVATION DATABASE. Observation data collected during a protocol habitat assessment survey from June 2006 to February 2008.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
6/7/2006	8:25	J. Dart	No			2 fishing boats at Kavanaugh-Cantinas confluence. Few mallards in area.	Start Lynch Survey. Sunny with moderate breeze and scattered high clouds. 60 F.
6/7/2006	8:30	J. Dart	Yes		RTHA	Subadult bald eagle heard screeching from Kavanaugh Creek backwaters for several minutes, then seen chased by RTHA toward confluence. The eagle flew low over a fishing boat and perched in a valley oak on Lynch Ranch west side of Cantinas Creek at confluence. RTHA perched in adjacent tree.	3rd year bald eagle. All dark above, white speckling on under side of wings, dirty white head with 80% white. Bill fully yellow.
6/7/2006	8:55	J. Dart	Yes			Bald still in tree. Fishing boat passed directly below and did not spook eagle. Boat is trolling back and forth at confluence. Female mallard and 5 chicks in Kavanaugh Creek.	
6/7/2006	9:15	J. Dart	Yes			Bald still in tree. Fishing boat still trolling, has caught numerous small trout and bass. No reaction by eagle.	
6/7/2006	9:20	J. Dart	Yes			Bald dropped out of tree half aggressively, landing in 8 inches of water at shoreline in an unsuccessful hunting attempt. Walked onto shore and flew up to a valley oak branch at Lynch proposed lake access site overhanging water.	
6/7/2006	9:40	J. Dart	Yes			The bald flew to backwater of Kavanaugh Creek and could not be re-located.	Finish Lynch Survey. Remain on property conducting rare plant surveys.
6/7/2006	14:20	J. Dart	No			No eagles located in Kavanaugh-Cantinas confluence area or backwaters. Lake quiet with no boats present.	Checked confluence one last time before leaving property.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
6/25/2006	11:00	J. Dart D. Meade	No	Yes	RTHA	One adult golden soaring over south-facing hillside of Reuger Hill. Second adult on ground, likely hunting ground squirrels, was attacked by RTHA and driven off.	99 F at 12:00 pm when leaving property.
6/25/2006	7:45 - 8:15	J. Dart D. Meade	No		RTHA	No eagles located in Kavanaugh-Cantinas confluence area or backwaters. Busy weekend day at the lake.	Lynch and Cantinas Survey. Site tour with Dan
7/9/2006	6:15	J. Dart	No	No		No boats. Fish jumping, water surface glassy. No bald eagles. No carp.	Lynch and Cantinas Survey. Start survey @ 59 F, no wind, clear skies, sun not yet over Tierra Redonda Mtn.
7/9/2006	7:10	J. Dart	No	No		No Bald eagles. No carrion or moribund fish. Raccoon tracks abundant on shore. No boats.	Walked shoreline of Kavanaugh-Cantinas Creek Confluence from Lynch Ranch since 6:15 am.
7/9/2006	7:20	J. Dart	No	No		First boat entering confluence area.	
7/9/2006	7:45	J. Dart	Yes	No	RTHA	2 subadult balds (2nd year) perched together in pine tree across lake from house. RTHA attacking. One eagle flew west past xmas cove into narrows. 2nd eagle flew east and out of sight, possibly into confluence area.	Drive to modular home site on south ranch to look at main lake.
7/9/2006	7:57	J. Dart	No	No		No bald eagles.	Drove back to confluence.
7/9/2006	8:15	J. Dart	No	No		No bald eagles.	Finish Survey, move to Cantinas Ranch.
7/9/2006	8:30	J. Dart	No	No		No bald eagles. No boats, confluence quiet, calm, hot.	
7/9/2006	9:25	J. Dart	No	No		No bald eagles.	Moved to Cantinas Ranch Survey finished. 88 F.
7/27/2006	10:15	J. Dart D. Meade	No				Lynch and Cantinas Survey. Start Surve @ 82 F, mild breeze. Enter water from Cantinas Creek peninsula at confluence.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
7/27/2006	10:25	J. Dart D. Meade	Yes			An adult bald flew into Kavanaugh Creek from the main confluence while we were inflating the boat in Cantinas Creek. The eagle was located in a valley oak along the east shoreline just north of the Cantinas Creek property line. The eagle spooked and flew north to another valley oak branch.	
7/27/2006	12:00	J. Dart D. Meade	Yes			Adult bald still in valley oak in backwaters of Kavanaugh Creek. This location is a good loafing or long term roost site used during the heat of the day.	
7/27/2006	12:15	J. Dart D. Meade	No	No		No more balds.	Finish Survey. Last spring survey. Some good potential roost and nest trees on main lake shore. Better trees are on south shore across from Lynch Ranch where 2 juv balds observed last survey.
7/27/2006	10:30- 12:00	J. Dart D. Meade	No			Surveyed entire shoreline along Lynch property from confluence west to western property line near xmas cove. No balds observed.	Start Lynch Survey. Dense fog @ ground level, frost on ground. <30 F, no wind.
12/20/2006	7:16	J. Dart	No	No			
12/20/2006	7:25	J. Dart	No		RTHA	RTHA perched on eagle roost valley oak tree @ confluence. Large numbers of band-tailed pigeons.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
12/20/2006	7:53	J. Dart	Yes	No		2 bald eagles perched in valley oak snag (dead, within high water line), at south end of valley oak woodland at waterpark site. First bald spooked at 300 feet distance. Bird was dark, but age class not determined. Second bald is a subadult, all dark head with white scapular patch. Both balds flew south toward main lake. The subadult flew low onto Cantinas Ranch. A fresh BTPigeon kill was below the eagle roost. It had been plucked and eaten on the snag. Remaining intestines still soft.	A white pickup truck was on Cantinas Ranch bird hunting.
12/20/2006	8:11	J. Dart	Yes			Subadult bald relocated on tip-top branch snag on Cantinas Ranch Calycadenia point, west side of point on slope. Flock of crows flew by bald without incident b/c balds are not a threat.	Low fog dense but starting to clear above 300 ft.
12/20/2006	8:20	J. Dart	Yes	Yes		One subadult bald still on Cantinas snag. Adult golden eagle perched in blue oak woodland on Lynch Ranch shore upslope from small valley oak woodland terrace (not mapped).	
12/20/2006	8:28	J. Dart	Yes			7 mallards (2 adults, 5 young) swam north up confluence to within 200 ft. of bald on Cantinas snag and out again. No hunt attempt.	
12/20/2006	8:40	J. Dart	Yes	Yes		Subadult bald still on Cantinas Ranch snag. Large fish jump. Bald has white speckling on breast. Golden eagle still present.	Fog starting to lift and wind picking up. My location is within valley oak woodland terrace, across lake from bald, and 100 ft. from adult golden. Bird hunting active north of property.
12/20/2006	8:43	J. Dart	Yes	Yes		Subadult bald still on Cantinas Ranch snag. Golden eagle still perched in blue oak woodland.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
12/20/2006	8:53	J. Dart	Yes	No		Subadult bald leaves perch while I was looking the other way. Direction of flight unknown.	
12/20/2006	9:15	J. Dart	No	No		Injured BTP on shore of Lynch Ranch. Appears to have been hit by a raptor and escaped.	
12/20/2006	9:26	J. Dart	Yes			Subadult bald flew north into confluence, landed in oaks at lake shore on Cantinas Ranch, north of inlet with road blow-out upstream. Second subadult bald located roosting within 100 ft in top of valley oak.	
12/20/2006	9:29	J. Dart	No	No	COHA	A Cooper's hawk flew onto Lynch Ranch from Cantinas Ranch and spooked about 100+ BTP's.	
12/20/2006	9:32	J. Dart	Yes	No		2 balds soaring over Oak Shores hill, visible from Lynch Ranch-age class not determined. Subadult balds speckled with white, bill light.	
12/20/2006	9:48	J. Dart	Yes	No		One subadult bald still roosting on Cantinas Ranch valley oak top.	
12/20/2006	10:07	J. Dart	Yes	No		Re-located missing subadult bald on Cantinas Ranch valley oak. Both eagles are on high valley oak branches, but are loafing, not hunting (preening, etc.). Birds are alert but resting.	
12/20/2006	10:15	J. Dart	Yes	No		One subadult bald flew south toward main lake-not spooked.	
12/20/2006	10:20	J. Dart	Yes	No		Second subadult bald flew to main lake-not spooked.	
12/20/2006	10:32	J. Dart	No	Yes	RSH	An adult golden eagle flew south over Hilltown, landed in prominent pine (leaning) and vocalized. RSH nearby.	
12/20/2006	10:38	J. Dart	No	Yes		A second adult golden soaring over north Cantinas Creek.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
12/20/2006	10:53	J. Dart	Yes	No		One adult bald roosting in large crooked pine across lake from modular (not 3-prong tree). The eagle is using a small branch below the canopy for loafing, against trunk.	Moved to south ranch at modular house. Balds observed roosting in the crooked pine in spring 2006.
12/20/2006	11:08	J. Dart	Yes	No	RTHA	A second adult bald is roosting on tip-top branch of prominent pine on south shore, east of loafing adult. A subadult bald is roosting in a pine on Lynch Ranch, farthest pine visible from modular home site with spreading branches. Age class barely determined with 60x scope. 3 RTHA on Lynch Ranch.	
12/20/2006	11:46	J. Dart	Yes	No		Both adult balds still on pines on south shore across from modular. Juvenile on Lynch Ranch gone.	
12/20/2006	11:52	J. Dart	No	No		Off-site, no other balds observed.	Survey finished. Mid-50's F, sunny and cool.
12/20/2006	7:30 - 10:38	J. Dart	Yes	Yes		1 live mallard in air, several BTP feather piles, one fresh carcass beneath eagle perch. No fish carrion or moribund. Few jumpers. Cougar tracks along shoreline.	Walked the entire shoreline of Lynch Ranch from Cantinas Creek to southern end of property in confluence, and back.
12/21/2006	7:08	J. Dart	No	No			Start Survey for Cantinas Ranch. <30 F, high clouds, calm. Parked on Lynch Ranch and walked onto Cantinas across dry Kavanaugh Creek.
12/21/2006	7:30	J. Dart	No	No		No balds observed at confluence area. Walked north into Kavanaugh Creek to property fenceline. One coyote crossing dry creekbed. One boat entered confluence area quietly, north as far as homestead inlet.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
12/21/2006	7:34	J. Dart	Yes	No		2 subadult balds flew over together from Oak Shores, 1 flew over Lynch Ranch toward south ranch area, 1 flew NE over Cantinas Ranch away from lake toward Oak Shores sewage ponds.	
12/21/2006	7:47	J. Dart	Yes	No		1 subadult bald located roosting on a large prominent pine on Lynch Ranch, on hilltop ridge between valley oak woodland terraces, overlooking confluence. This was likely the first bald that flew toward south ranch but really flew along ridge to the tree at 7:34 am.	
12/21/2006	7:49	J. Dart	Yes	No		Subadult bald in pine flew NE following a second juv bald over Cantinas Ranch.	
12/21/2006	7:50	J. Dart	No	No		BTP feather pine below valley oak snag on Calycadenia point west side (12/20 eagle roost tree). No pellets, casts, or eagle feathers.	
12/21/2006	8:58	J. Dart	No	No		Balds have not returned to the confluence area. I walked entire Cantinas Ranch shoreline for carrion survey. 4 BTP feather piles observed. 12 mergansers in lake. No fish jumps, moribund, or remains.	
12/21/2006	9:13	J. Dart	No	No		Drove to Lynch Ranch modular home site. No balds on either shore.	Survey finished.
1/25/2007	8:25	J. Dart M. Perry	No	No		Coyote yipping in hills. 12 coots, 11 cinnamon teal in backwaters. Water still very low.	Start Lynch Survey @ 8:25 am. 34 F, sunny and clear. Wind 0-3 mph.
1/25/2007	8:41	J. Dart M. Perry	Yes	No		Four bald eagles took off from beach on Cantinas Ranch, flew south down toward main lake. Crows mobbing. Eagles appeared to fly from the ground. At least two were 2nd year birds. All four appeared dark, and possibly all subadults.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
1/25/2007	8:46	J. Dart M. Perry	Yes	No		One 2nd year bald returned and perched on an oak snag on Cantinas Ranch inlet at homestead. Bird is mottled white on upper wings, mostly dark above. Has red patagial tags on each wing.	Kelly Sorenson said this bird may be from Catalina Island. Contact Institute for Wildlife Studies.
1/25/2007	9:00	J. Dart M. Perry	Yes	No		2nd year bald still on snag. 2 coots swimming past within 100 feet.	Observations are from Lynch Ranch at southern valley oak woodland.
1/25/2007	9:09	J. Dart M. Perry	Yes	No		Another subadult bald flew in over the water from the main lake and attempted to land with the first bird perched on tree. It missed the landing and flew to a different snag on the shore at the next inlet north.	
1/25/2007	9:11	J. Dart M. Perry	Yes	No		Both balds present on snags. Both birds are streaked on breast. One has darker upper wings and definite plastic wing tags. Other is light brown over all with lighter streaks. Nape streaked, bill light with darker tip-possibly a 1st year bird?	
1/25/2007	9:27	J. Dart M. Perry	Yes	No		Both balds still on snags. Eagles are alert, occasionally preening.	
1/25/2007	9:43	J. Dart M. Perry	Yes	No		Tagged bald flew from snag low over water toward main lake. Light bald still perched on snag. Primaries on this bird are dark with light brown secondary's and coverts, with few white mottles.	
1/25/2007	10:03	J. Dart M. Perry	Yes	No		Light colored bald flew low, about a foot off the ground, over grassland on Cantinas Ranch hoping for an opportunistic rodent catch. Legs were dangling down and it grabbed at rocks hoping they were rodents.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
1/25/2007	10:05	J. Dart M. Perry	Yes	No		The light bald flew to the southern snag. Tail is all light brown, white mottles on lower wing surface.	
1/25/2007	10:25	J. Dart M. Perry	Yes	Yes		A golden eagle adult flew out of the homestead inlet toward main lake. No interaction with the bald eagle roosting nearby.	
1/25/2007	10:57	J. Dart M. Perry	Yes	No		Light colored bald left snag and flew toward lake.	
1/25/2007	11:34	J. Dart M. Perry	No	No		Moved to south ranch at modular home site to survey main lake. No balds observed.	
1/25/2007	11:53	J. Dart M. Perry	No	No		No balds observed at south ranch main lake shore.	Day survey finished.
1/25/2007	16:10	J. Dart M. Perry	No	No		No balds observed in confluence area.	Start evening survey from confluence. 62 F sunny, mod winds 4-8 mph.
1/25/2007	16:25	J. Dart M. Perry	No	No		Observations from southern valley oak woodland on Lynch Ranch. No balds. 36 mallards overhead, 12 coots and 16 Cinnamon teal in backwaters. Quiet. Wind from the south. 25+ vultures soaring above oak shores.	Very few fish jumping. No carcasses observed along the shore of Lynch Ranch. BTP feather piles common.
1/25/2007	17:00	J. Dart M. Perry	No	No		No balds observed during the evening survey.	Waterfowl and ground squirrels are abundant.
1/25/2007	10:15-10:22	J. Dart M. Perry	Yes	No		Same bald flew to the ground near a fallen tree in the mud flats. It curiously picked up and dragged sticks around. Four magpies hopped around him. The eagle took a small twig in its bill and flew to a different single-stem snag, but dropped the twig when landing.	Finish Lynch survey.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
1/29/2007	6:52	J. Dart	No	No		Walking survey of Cantinas shoreline from confluence. 16 Canada geese, 42 coots, 24 Eurasian widgeons, 3 cinnamon teal, 1 bufflehead. Fish jumping.	Start Cantinas Survey, first light, cloudy with drizzly rain. About an inch has fallen over last 2 days.
1/29/2007	7:13	J. Dart	Yes	No		Ducks spooked out of backwaters, and a 2nd year bald flew south over the water to the main lake. No hunt attempt. No patagial tags. Observation from Cantinas Valley oak woodland.	
1/29/2007	7:59	J. Dart	Yes	No		Homestead inlet-2 adult balds roosting atop a prominent pine on Lynch hilltop, SW of inlet. 26 mallards spooked from inlet upon my approach.	
1/29/2007	8:15	J. Dart	Yes	No		Both balds left pine within 2 minutes of each other, flew south over ridge. Assume the view is of the main lake from the perch.	
1/29/2007	9:45	J. Dart	No	No		Walked north into Kavanaugh Creek. No balds. Wild pig family photographed.	
1/29/2007	10:06	J. Dart	No	No		Walked Lynch shoreline. No balds. 37 coots.	
1/29/2007	11:04	J. Dart	No	No		No balds observed since 8:15. No goldens observed today. Lots of waterfowl and jumping fish. No prey remains found except BTP feather piles. No boats all morning.	Cantinas Survey finished. 56 F, cloudy but clearing.
2/26/2007	6:40	J. Dart	No	No			Start Survey. 38 F, foggy, winds 0-3 mph. First light was about 6-6:15 am.
2/26/2007	6:54	J. Dart	Yes			Basic I bald eagle roosting on valley oak snag on Lynch shore, south end of northern valley oak woodland. Few coots in backwaters. The eagle was spooked by a crow or RTHA and flew out to the main lake. All dark body with small white flecks.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
2/26/2007	7:20	J. Dart	No	No		Fog dropped to ground level. No visibility. Observations being made from beneath an oak tree on hillside near the Homestead Inlet.	
2/26/2007	7:33	J. Dart	No	Yes		7 coots in Homestead Inlet. A golden eagle flew into the inlet and roosted in a valley oak on NE shore.	
2/26/2007	7:56	J. Dart	Yes	No	RSH	A subadult bald eagle, likely 2nd year, located on dead snag on shoreline at the inlet north of Homestead Inlet. All dark bird with white band in tail and significant white on underwings.	Because of thick fog I didn't see the eagle until I was about 100 feet away. It spooked moments later and flew low over the water toward Lynch.
2/26/2007	8:32	J. Dart	No	No		27 coots in backwaters. Varied thrush calling. Fog lifting, drizzle of rain.	Begin walk of Lynch shoreline.
2/26/2007	9:27	J. Dart	No	No		No bald eagles observed.	Finish walking survey of Lynch. Fog lifted, drizzly rain.
2/26/2007	9:38	J. Dart	No	No		No fog, good visibility. No balds observed at main lake from Modular home site.	Moved to south ranch at modular house.
2/26/2007	9:58	J. Dart	No	No	SSHA RTHA TUVU		Vultures soaring, few RTHA in vicinity. Female sharp-shinned hawk. No boats, no bald eagles.
2/26/2007	11:00	J. Dart	No	No		No bald eagles.	Monitored shoreline at main lake body for the last hour. Finished survey.
3/5/2007	7:20	J. Dart	No	No		Water glassy with fish jumping. No boats, no bald eagles.	Start Lynch survey at modular. 46 F, calm, wind 0-3 mph.
3/5/2007	7:47	J. Dart	Yes	No		A sub-adult bald flew east from narrows, landed briefly in pines on south shore of lake across from modular. Bird was backlit and plumage not well seen. Appeared dark.	Walked west along shoreline to Christmas Cove looking for prey remains, food items, and eagles.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
3/5/2007	7:54	J. Dart	Yes	No		The sub-adult was located flying east NE, over Lynch ridge into Cantinas-Kavanaugh confluence. One fishing boat was near Lynch shoreline, east end of property.	
3/5/2007	7:56	J. Dart	Yes	No		A second sub-adult or juvenile bald flew from the south shore of the lake into the confluence after the first bald.	
3/5/2007	8:10	J. Dart	Yes	No		Located a sub-adult bald on a dead snag on Cantinas shore, north of Homestead inlet. Same perch used on previous days.	Moved to confluence, on foot.
3/5/2007	8:13	J. Dart	Yes	No		Located a second sub-adult in a tall pine on the wooded hillside of Oak Shores, south of Cantinas homestead inlet.	
3/5/2007	8:27	J. Dart	Yes	No		Sub-adult bald still on the snag. Backlit, but appears to be the light brown individual seen before. 2nd sub-adult gone. 13 coots in backwaters. 30 mallards flew north overhead, few landed in backwaters.	Observations are from the north end of the valley oak woodland.
3/5/2007	8:32	J. Dart	Yes	No		Sub-adult bald left snag, flying low along shoreline, heading south. Appeared to land in shadows, but couldn't tell.	
3/5/2007	8:38	J. Dart	Yes	No		2 sub-adult balds located on shore at the toe of the Oak Shores hillside, south of Homestead Inlet. Both birds flew up to a low blue oak branch at my approach (on Lynch shore). The eagles are feeding, possibly on a bird (feathers in the beak of one). No patagial tags.	One bald is light brown with white speckling. The second is very streaked with white and has a large white scapular patch. Head is mostly dirty white with dark eye stripes. Appears that this one made the kill and the younger bird got a few scraps.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
3/5/2007	8:42	J. Dart	Yes	No		A golden eagle was roosting in an oak right above my head, and spooked to another perch in the Lynch woodland, vocalizing. 2nd year and 3rd year balds still feeding.	
3/5/2007	8:53	J. Dart	Yes	No		3rd year bald flew down to the lake edge and stood belly deep in the water to drink. Stayed at the shore for 6 minutes.	
3/5/2007	8:59	J. Dart	Yes	No		3rd year bald flew back to feeding perch with the younger bald.	Tree is a group of four blue oaks below the high water line on a rocky point just south of Homestead Inlet. Tree has spreading main branches.
3/5/2007	9:06	J. Dart	Yes	No		Both eagles still in tree.	
3/5/2007	9:20	J. Dart	Yes	Yes		An adult golden eagle perched on Lynch woodland snag, flew NE. At least the younger bald is still in the blue oak.	
3/5/2007	9:33	J. Dart	Yes	Yes		Both balds still in the oak tree. They are perched next to each other. A golden eagle is perched on a valley oak branch on the north shore of Homestead Inlet, same as previously used.	Walked to Cantinas shoreline, intending to go look under feeding perch to determine what was eaten.
3/5/2007	9:36	J. Dart	Yes	Yes		The golden is a sub-adult with white underwings and light band in tail. It flew to a tall oak branch on the hillside above the sub-adult balds-all birds still perched.	
3/5/2007	9:50	J. Dart	Yes	Yes			Observations made from beneath an oak tree on the south shore of Homestead Inlet, 200 feet away from eagles.
3/5/2007	9:53	J. Dart	Yes	Yes		Both balds and the golden are still present. Both eagles alertly watching the water.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
3/5/2007	10:11	J. Dart	Yes	Yes		2nd year bald flew across lake to a prominent pine tree on the shore above the steep rocky cliff, perched on a broken branch snag below the canopy. Small white scapular patch with all dark back.	
3/5/2007	10:18	J. Dart	Yes	Yes		2nd year bald flew to the southernmost valley oak in the southern valley oak woodland, on a large branch leaning toward the water. Live oaks adjacent. Tree is 2 feet above the high water line.	
3/5/2007	10:22	J. Dart	Yes	Yes		2nd year bald moved again to a tall valley oak at the north end of the southern valley oak woodland, closest tree to the water.	
3/5/2007	10:26	J. Dart	Yes	Yes		3rd year bald flew down to the water with its legs down, appeared to be going for a fish but aborted and flew low over the water south toward the main lake. Golden eagle still present in tree.	
3/5/2007	10:40	J. Dart	No	No		Fresh coot wings and remains located below the feeding perch. Important find.	
3/5/2007	10:57	J. Dart	Yes	No		I spooked 12 mallards out of a small inlet on Cantinas shore, and looked up to see the 3rd year bald flying low overhead. It circled around and soared high over Cantinas Ranch.	
3/5/2007	11:01	J. Dart	Yes	No		2nd year bald still in valley oak.	
3/5/2007	11:28	J. Dart	Yes	Yes		2nd year bald still present in valley oak. Adult golden on Cantinas shore tree flew to blue oak woodland above valley oak woodland.	
3/5/2007	11:35	J. Dart	No	No			Finished survey. High clouds, 67 F, winds 4-7 mph from the south.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
3/22/2007	6:52	J. Dart	No	No		12 mallards in backwaters	Start Cantinas Ranch Survey at sunrise. Clear skies over Cantinas, low fog over main lake. 38 F, calm.
3/22/2007	7:32	J. Dart	Yes	Yes		One 4th year and one 2nd year bald flew into confluence from Cantinas Ranch. Golden vocalizing from Lynch woodland when balds approached. Photographs taken.	
3/22/2007	7:36	J. Dart	No	No		11 coots and many Clark's grebes in backwaters	
3/22/2007	7:38	J. Dart	Yes			4th year bald located in a valley oak in the southern VO woodland, at water's edge. Head white with fine dirty streaks, 50-50 brown-white streaked belly, and darkened chest band. Bill all yellow, tail underside dirty.	
3/22/2007	8:10	J. Dart	Yes	No		4th year bald flew north to another valley oak between the VO woodlands-dead tree, good perch. White scapular patch visible. 2nd year bald also roosting in this tree. Mostly brown with some white flecks on breast, bill dark.	
3/22/2007	8:22	J. Dart	Yes	No		Another 2nd year bald flew in from main lake. 3 balds in view. It landed on the Cantinas Ranch shoreline snag north of Homestead Inlet. Both other balds immediately flew over to greet it, and landed in adjacent valley oak.	
3/22/2007	8:35	J. Dart	Yes	No		2nd year bald flew south to new tree, a blue oak snag, south of Cantinas boundary at base of Oak Shores Hill	
3/22/2007	8:36	J. Dart	Yes	No		4th year bald flew to blue oak feeding perch used on 3/5/07. Low flight across water, spooking grebes and fish, but no hunt attempt.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
3/22/2007	8:50	J. Dart	Yes	No		All 3 balds visible. New bald on the snag is the brown juvenile observed during previous surveys. Belly uniform brown with darker brown chest band. Head and bill darkish. All 3 balds alert, watching water, waiting for feeding opportunity.	
3/22/2007	9:13	J. Dart	Yes	Yes	COHA	All 3 balds still perched. Golden vocalizing occasionally from Lynch woodland. 4th year bald has a small dark spot on top of head.	
3/22/2007	9:40	J. Dart	Yes	Yes		All 3 balds still perched.	Hiked up Lynch hillside to look for golden eagle nest. Not found.
3/22/2007	10:26	J. Dart	Yes	No		All 3 balds located in southernmost blue oak. 4th year bald is eating prey item, and two 2nd year balds are begging.	
3/22/2007	10:33	J. Dart	Yes	No		2 more juvenile 2nd year balds flew into the same tree. 5 balds visible, four 2nd year and one 4th year.	
3/22/2007	10:38	J. Dart	Yes	No		The four 2nd year birds left, 4th year bird still perched.	
3/22/2007	11:14	J. Dart	No	No	RTHA	No more balds observed on walk back to car. Occupied RTHA nest in valley oak near confluence.	Survey of confluence finished.
3/22/2007	11:25	J. Dart	No	No	RTHA	Scouted main lake from the modular house area. No balds observed.	
3/22/2007	11:40	J. Dart	No	No		No more balds observed.	Survey finished. 68 F, sunny and warm, winds 3-7 mph.
4/12/2007	7:25	J. Dart	No	Yes		8 wigeons, 9-15 clark's grebes. Golden eagle vocalizing from Lynch woodland.	Survey start. 42 F, sunny and cool. Winds 0-3 mph, dry. Walking survey of Cantinas Shoreline.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
4/12/2007	8:22	J. Dart	Yes	No		A sub-adult bald located atop pine at south end of Lynch Woodland Ridgeline, overlooking confluence. Mottled breast.	
4/12/2007	8:30	J. Dart	Yes	No		Sub-adult bald flew south over main lake, out of view. No prey items found along Cantinas Shoreline.	
4/12/2007	9:15	J. Dart	No	No		High winds, 15-18 mph from the north. 2 SWPT observed in confluence, no fish.	
4/12/2007	9:50	J. Dart	No	Yes		9 mallards in confluence backwaters. An adult golden flew over hills on Lynch Ranch. Adult bald flew low over the bunchgrass grassland near the modular house on Lynch Ranch. The eagle saw me and circled high over the lake.	Moved to Lynch Ranch at main lake.
4/12/2007	10:00	J. Dart	Yes	No		Subadult bald with scapular patch flew low over Lynch Ridge at southeast property, flew across lake and along tree canopy.	
4/12/2007	10:11	J. Dart	Yes	No		Adult bald came back to Lynch from south side of lake, near modular house, headed west over xmas cove and joined an adult golden eagle on a high thermal.	
4/12/2007	10:14	J. Dart	Yes	Yes		Waterskier in main lake by modular house	
4/12/2007	10:18	J. Dart	No	No		Fishing boat passed in main lake by modular, heading west toward narrows	
4/12/2007	10:27	J. Dart	No	No		Another fishing boat passed in main lake by modular, heading west toward narrows	
4/12/2007	10:35	J. Dart	No	No		No balds	Survey finished. 67 F, winds 15-18 mph, sunny.
4/12/2007	10:45	J. Dart	No	No			

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
4/26/2007	6:56	J. Dart	No	No			Start Survey, Lynch Ranch. 44 F, clear calm and cool. Walking survey start at modular house along main lake body-walk shoreline east toward oak shores.
4/26/2007	7:35	J. Dart	No	No		No balds	
4/26/2007	9:01	J. Dart	No	No		No balds. 6 coots and 4 mallards at rocky rare plant area. No dead or moribund fish observed. Lots of bass jumping.	
4/26/2007	10:35	J. Dart	No	No		Walked to point southeast of Lynch Ranch near oak shores boatramp. No balds. A fish head was found below a valley oak snag within the high water line. No boats.	
4/26/2007	11:00	J. Dart	No	No		Walked from point west to modular house. No balds.	Moved to confluence, walked lynch shoreline. 75 F, sunny, 4-7 mph. Survey finished.
5/11/2007	6:40	J. Dart	No	No		1 boat in confluence. No balds.	Start Survey, Cantinas Ranch. Clear and cool, 48 F, 0-3 mph. Walking survey of Cantinas shoreline.
						No Balds	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
5/11/2007	6:55	J. Dart	Yes	No		An adult bald is perched on a dead single-trunk snag within the high water line on Cantinas Shore at the Valley oak woodland, just south of and across from water park valley oak woodland on Lynch. I observed the eagle from ~150 ft, on foot, and it did not spook. I circled wide and set-up observation point behind a large oak 500-600 ft. south of the eagle. Eagle is calm but wary, occasionally preening. No waterfowl or carrion observed; few ground squirrels. No fish jumping, no boats.	The high water line is about 200 feet south of the eagle's perch. Likely just loafing, but wary enough to take prey if available.
5/11/2007	7:21	J. Dart	Yes	No		The adult bald flew off perch, low over muddy streambottom, north and out of view. Not relocated.	
5/11/2007	7:28	J. Dart	No	No		No sign of adult bald. No prey remains below snag, so not used as a feeding perch. Some fish jumping.	
5/11/2007	7:41	J. Dart	Yes	No		3rd year bald with streaked nape flew into confluence just below the tree-line along Lynch shore, landed in valley oak directly across from me as I stood at the lake shoreline in full view. Bill tip dirty, base and cere light orange, eye-stripe visible. Body dark brown with few white flecks. Some remiges nearing black, contrasting with brown ones. Head 80% brown, 20% white streaks. Valley oak is in full leaf, with numerous dead branch tips. Roost site is a 1" branch stub about 10 ft. below the tree top.	Baby ground squirrels are out and abundant. Prey?
5/11/2007	7:57	J. Dart	Yes	No		3rd year bald still in valley oak, actively scanning lake. Not preening. Certainly aware of my presence on far shoreline.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
5/11/2007	8:17	J. Dart	Yes	No		3rd year bald still in valley oak.	I left my observation point and walked south to increase distance from eagle.
5/11/2007	8:31	J. Dart	Yes	No		3rd year bald still in valley oak. A fishing boat moved quietly into confluence, caught a 10" spotted bass in front of homestead inlet.	I moved 700 ft south of eagle, watching from beneath tree cover. Cattle with newborn calves are present on Cantinas. No carcasses observed, but potential food item.
5/11/2007	8:43	J. Dart	Yes	No		3rd year bald turned to face water. Breast and belly uniformly mottled, white and brown 50-50. Boat leaving.	
5/11/2007	9:01	J. Dart	Yes	No		3rd year bald still in tree.	I left observation point, circled east out of view of eagle.
5/11/2007	9:25	J. Dart	Yes	No		3rd year bald still in tree. It moved into the shade of the same branch-Loafing Perch. An adult mallard pair is directly below.	Air temp warming to 68-70 F.
5/11/2007	9:47	J. Dart	Yes	No		3rd year bald still in tree. Has been here for just over 2 hours.	I moved to modular house, main lake.
5/11/2007	10:02	J. Dart	No	No		No balds. 3 boats in main lake in 45 minutes time.	
5/11/2007	10:45	J. Dart	No	No		No balds.	Left main lake.
5/11/2007	10:55	J. Dart	No	No		No balds. Walked to loafing trees in back Kavanaugh Creek, now dry, to check to see if it was being used.	
5/11/2007	11:04	J. Dart	Yes	No		3rd year bald relocated perched atop a blue oak on Lynch shoreline across from the homestead inlet.	
5/11/2007	11:44	J. Dart	Yes	No		3rd year bald left perch and circled toward oak shores sewage ponds.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
5/11/2007	11:51	J. Dart	Yes	No		An adult bald observed circling higher and higher over east Cantinas Ranch. Must have been loafing somewhere nearby, maybe Oak Shores II area.	
5/11/2007	11:56	J. Dart	Yes	No		Both balds soared out of sight.	
5/11/2007	12:14	J. Dart	No	No		No Balds.	Survey finished. 88 F, hot and sunny. 4-7 mph
5/31/2007	6:48	J. Dart	No	No		No balds.	Start Survey, Cantinas Ranch. 48 F, overcast and calm. No wind.
5/31/2007	6:55	J. Dart	No	No	RTHA	No balds. Water has receded in confluence to vicinity of valley oak woodlands; broad mud flats. 5 mallards, 2 clark's grebes.	Winds picked up to 4-7 mph. 2 pond turtles in shallows. Observation point on Cantinas shore south of valley oak woodland.
5/31/2007	8:34	J. Dart	No	Yes		No balds yet seen today. No boats. No dead or moribund fish, no band-tailed pigeons. No jumping fish. Golden eagle vocalizing from Lynch woodland.	No balds. Did they abandon area temporarily due to Memorial Day weekend?
5/31/2007	9:27	J. Dart	No	No		No balds.	Moved to Lynch Ranch at main lake.
5/31/2007	9:40	J. Dart	No	No		No balds at main lake along Lynch Shoreline.	
5/31/2007	10:38	J. Dart	No	No		No balds. 1 boat in main lake in front of Lynch, was present for less than 5 minutes.	Finish survey. 78 F, sunny, wind 0-3 mph
6/29/2007	7:04	J. Dart	No	No		No balds on Cantinas shoreline. Water very low, down to Homestead inlet.	Start survey, Cantinas Ranch. 56 F, quiet. 0-3 mph.
6/29/2007	7:36	J. Dart	No	No		No waterfowl or band-tailed pigeons.	
6/29/2007	7:53	J. Dart	No	No		One dead carp on Cantinas shore near homestead inlet. Abundant live carp in shallows.	
6/29/2007	8:34	J. Dart	No	No		No balds. Prey (carp) appears readily available, so presumably even more prey elsewhere in lake so eagles may be spread out widely.	Finished walking survey of confluence on Cantinas Shore.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
6/29/2007	8:42	J. Dart	No	No		No balds.	Moved to modular at main lake.
6/29/2007	9:43	J. Dart	No	No		Walked shoreline at main lake. No balds.	Survey finished.
12/11/2007	6:45	J. Dart	No	No		Walked shoreline of Cantinas Ranch. Confluence is totally dry.	Start survey, Cantinas Ranch. 30 F, clear calm and cold, 0-3 mph.
12/11/2007	7:10	J. Dart	No	No	RSH		
12/11/2007	7:18	J. Dart	Yes	No		1st year juvenile bald landed on <b>Tree #xx</b> , a prominent pine next to the house on the point across from the cliff jump. Tree has a large squirrel-like nest. The eagle roosted on a lower branch just below the canopy.	
12/11/2007	7:23	J. Dart	Yes	No	RTHA	2 RTHA flew in from main lake chasing each other.	
12/11/2007	7:26	J. Dart	Yes	No		Juvenile bald aggressively defended territory, chasing RTHA out. An adult bald flew in to help from somewhere over Oak Shores. Both eagles retreated after departure of RTHA to main lake. The adult flew west and the juvenile flew east.	
12/11/2007	7:44	J. Dart	Yes	No		3 adult balds observed near confluence at main lake. 2 adults over main lake, 1 flew directly into confluence to oaks at the house on point. The third adult bald and 1 RTHA flushed from the trees. Flock of turkeys on the driveway.	
12/11/2007	7:49	J. Dart	No	No		No waterfowl or other potential prey except possibly turkey. 2 eared grebes, 5 snipe, 1 yellowlegs, and 1 gull.	Quiet, no boats. Thick fog toward marina, but good visibility here.
12/11/2007	8:30	J. Dart	No	No		Walked out to SW point of confluence at main lake. No dead or moribund fish. 21 coots at point. No balds.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
12/11/2007	9:42	J. Dart	No	No		No balds.	Survey finished. 54 F, 0-3 mph, clear and cool.
12/21/2007	6:47	J. Dart	No	No		Walked shoreline west to Xmas Cove. ~200 coots in vicinity. Occasional fish jumping. No moribund or dead fish.	Start survey, Lynch Ranch. 30 F, cold clear and calm. 0-3 mph. Rain last 2 days, ice on ground.
12/21/2007	7:31	J. Dart	Yes	No		Subadult bald, likely 3rd year, roosting on prominent pine on south shore of main lake, 1st point east of modular house. Eagle has a dirty head, approx. 35-50% white. Body dark with lots of white streaking on breast. Eagle is alert, looking around. Many coots in water below.	Bald likely just flew in from the east.
12/21/2007	7:48	J. Dart	No	No		Eagle gone, didn't see it leave. Cannon relocate.	
12/21/2007	8:31	J. Dart	Yes	No		An adult bald is roosting on south shore of main lake across from Kav/Cantinas confluence. It is perched on top of bushy pine on point SW across from oak shores boat launch.	
12/21/2007	8:39	J. Dart	Yes	No		A second adult bald flew over me @ the confluence point, heading to the east along oak shores, flying low. Where did it come from?	
12/21/2007	8:44	J. Dart	Yes	No		First adult bald still perched in pine. ~150 grebes at confluence.	
12/21/2007	9:01	J. Dart	Yes	No		Adult bald still perched. Walked shoreline back to the west toward modular house.	
12/21/2007	9:05	J. Dart	Yes	No		2 adult balds now perched in pines SW from boat launch at oak shores. 2nd eagle must have just flown in from the east. Possibly the Oak Shores nesting pair.	
12/21/2007	9:20	J. Dart	Yes	No		One adult bald remaining at perch. Continued to walk to the west, out of view.	

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
12/21/2007	9:50	J. Dart	No	No		No balds near modular.	Survey finished, 48-50 F, calm and sunny.
1/29/2008	6:58	J. Dart	No	No		No balds	Start survey, Lynch Ranch. 34 F, dense low fog, no wind. First light, half moon high in sky. Many inches of rain over last week.
1/29/2008	7:15	J. Dart	No	No		No balds. Walking survey from modular house to the east along shore and on wooded hillside. Water in lake is muddy brown with lots of debris.	Fog too dense, can't see south shore or much of the water. Winds picked up, 0-3 mph.
1/29/2008	7:45	J. Dart	No	No		No balds. Other birds beginning to sing and be active.	Sun is above the ridge, but fog is very thick.
1/29/2008	8:30	J. Dart	No	No		No balds at confluence. Water has risen 6-8 vertical feet, extending in to confluence north of homestead inlet. 52 coots, 1 clarks grebe.	Still dense fog and poor visibility.
1/29/2008	9:06	J. Dart	Yes	No		1 adult bald located on a perch on the south shore of main lake, SE of modular house between two homes. Fog has cleared, occasional fish jumping. Perch is a small extremity branch, likely a temporary or hunting perch. Eagle is alert and is aware of my presence on opposite shoreline. No dead/moribund fish.	
1/29/2008	9:40	J. Dart	Yes	No		Eagle flew east to another pine on south shore about 500 meters east.	
1/29/2008	10:15	J. Dart	No	No		No balds	Survey finished. 49 F, sunny. Fog lifted. 0-3 mph.
1/31/2008	6:54	J. Dart	No	No		No balds. 3 RTHA roosting in trees on cantinas and lynch shores at confluence. Water level up to inlet south of valley oak woodlands. 50 coots, 21 mallards, 4 clark's grebes	Start survey, 34 F, cool and partly cloudy. Damp.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
1/31/2008	7:15	J. Dart	No	No		Walking survey of Cantinas shoreline. No balds. No fish or remains. Stopped below tree on homestead inlet to watch for eagles. Another 100 coots came out of inlet. ~160 total.	
1/31/2008	7:38	J. Dart	No	Yes		An adult golden eagle perched in pine on ridgeline of Lynch woodland. Vocalizations may be coming from a 2nd adult.	
1/31/2008	8:38-9:40	J. Dart	No	No		Hiked up homestead canyon to look at the large raptor nest found up there in 2006. Located in valley oak on canyon floor. Large, bulky nest-could be eagle. No raptors in vicinity.	
1/31/2008	9:51	J. Dart	Yes	No		A subadult bald eagle flew in low over Cantinas Ranch shore heading north. It looked at the coots in the shallows, but continued north of the property, then circled on a thermal high and out of view. 150 coots & 4 mallards in backwaters.	
1/31/2008	10:10	J. Dart	No	No		No balds. Walked back to car.	Survey finished. Sunny and warming, 59 F
2/19/2008	6:53	J. Dart	No	No		No balds. Few waterfowl-2 mallards, some grebes and cormorants. No moribund/dead fish. Few jumpers. No other raptors.	Start Survey. Overcast, cool, and calm. 38 F. Very good visibility. Walked Lynch main lake shoreline from modular to confluence.
2/19/2008	7:59	J. Dart	No	No		No balds.	Observations from rock outcrop on west edge of confluence mouth. View is up confluence to homestead inlet, west to xmas cove, and east for at least a mile.

Date	Time	Biologist	Bald Eagle Obs?	Golden Eagle Obs?	Other Raptors	Observations	Notes
2/19/2008	8:09	J. Dart	No	No	Merlin	No balds. An adult female merlin flew along shoreline, landed on top of pine on west shore of confluence mouth.	
2/19/2008	8:27	J. Dart	Yes	No		A 4th year subadult bald eagle was located in the pine tree often used by balds near the house on the east shore of the confluence. The head is streaked white, 50-70%, wings with white flecks on top, darkish eyestripe, scapular patch streaked, body brown. A mallard flew by, but no reaction by eagle.	This could be the light brown individual observed on 3/5 and 3/22/07
2/19/2008	9:15	J. Dart	Yes	No		4th year bald still present. Alert, occasionally preening.	
2/19/2008	9:50	J. Dart	No	No		4th year bald left perch while I hiked up a hill to get a better view of the lake.	This is typical of the bald eagles, to remain inactive while being observed, and to leave as soon as the observer is out of view.
2/19/2008	10:42	J. Dart	No	No		Walked along Lynch dirt roads on hilltop, scanning main lake for balds. None observed	Survey finished. 58 F, light sprinkle of rain.