

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2011061003

Project Title: Revised Grazing Lease Agreement, Carrizo Plain Ecological Reserve, Chimineas Units 2011-2014

Lead Agency: California Department of Fish and Game Contact Person: Robert Stafford
Mailing Address: 1234 East Shaw Avenue Phone: (805)528-8670
City: Fresno Zip: 93710 County: San Luis Obispo

Project Location: County: San Luis Obispo City/Nearest Community: California Valley
Cross Streets: 18888 Chimineas Ranch Road Zip Code: _____
Lat. / Long.: 35° 09' 14" N/ 119° 57' 58" W Total Acres: ~13,500
Assessor's Parcel No.: Numerous - see MND Section: table 1 Twp.: _____ Range: _____ Base: _____
Within 2 Miles: State Hwy #: 166 Waterways: San Juan Creek, Cuyama River
Airports: None Railways: None Schools: None

Document Type:

CEQA: NOP Draft EIR NEPA: NOI Other: Joint Document
 Early Cons Supplement/Subsequent EIR EA Final Document
 Neg Dec (Prior SCH No.) Draft EIS Other _____
 Mit Neg Dec Other Revised Mit Neg Dec FONSI

Local Action Type:

General Plan Update Specific Plan Rezone Annexation
 General Plan Amendment Master Plan Prezone Redevelopment
 General Plan Element Planned Unit Development Use Permit Coastal Permit
 Community Plan Site Plan Land Division (Subdivision, etc.) Other Lease Approval

Development Type:

Residential: Units _____ Acres _____ Water Facilities: Type _____ MGD _____
 Office: Sq.ft. _____ Acres _____ Employees _____ Transportation: Type _____
 Commercial: Sq.ft. _____ Acres _____ Employees _____ Mining: Mineral _____
 Industrial: Sq.ft. _____ Acres _____ Employees _____ Power: Type _____ MW _____
 Educational _____ Waste Treatment: Type _____ MGD _____
 Recreational _____ Hazardous Waste: Type _____
 Other: Grazing Lease

Project Issues Discussed in Document:

Aesthetic/Visual Fiscal Recreation/Parks Vegetation
 Agricultural Land Flood Plain/Flooding Schools/Universities Water Quality
 Air Quality Forest Land/Fire Hazard Septic Systems Water Supply/Groundwater
 Archeological/Historical Geologic/Seismic Sewer Capacity Wetland/Riparian
 Biological Resources Minerals Soil Erosion/Compaction/Grading Wildlife
 Coastal Zone Noise Solid Waste Growth Inducing
 Drainage/Absorption Population/Housing Balance Toxic/Hazardous Land Use
 Economic/Jobs Public Services/Facilities Traffic/Circulation Cumulative Effects
 Other _____

Present Land Use/Zoning/General Plan Designation:

Recreation and Rural Lands

Project Description: (please use a separate page if necessary)

Execution of a 3-year grazing lease between the California Department of Fish and Game and Dr. Neil Dow allowing managed grazing on approximately 13,500 acres on the Chimineas Units of the Carrizo Plain Ecological Reserve for habitat management purposes.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

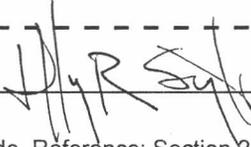
- | | |
|--|---|
| <input checked="" type="checkbox"/> Air Resources Board | <input type="checkbox"/> Office of Emergency Services |
| <input type="checkbox"/> Boating & Waterways, Department of | <input checked="" type="checkbox"/> Office of Historic Preservation |
| <input type="checkbox"/> California Highway Patrol | <input type="checkbox"/> Office of Public School Construction |
| <input checked="" type="checkbox"/> CalFire | <input type="checkbox"/> Parks & Recreation |
| <input type="checkbox"/> Caltrans District # _____ | <input type="checkbox"/> Pesticide Regulation, Department of |
| <input type="checkbox"/> Caltrans Division of Aeronautics | <input type="checkbox"/> Public Utilities Commission |
| <input type="checkbox"/> Caltrans Planning (Headquarters) | <input checked="" type="checkbox"/> Regional WQCB # _____ |
| <input type="checkbox"/> Central Valley Flood Protection Board | <input type="checkbox"/> Resources Agency |
| <input type="checkbox"/> Coachella Valley Mountains Conservancy | <input type="checkbox"/> S.F. Bay Conservation & Development Commission |
| <input type="checkbox"/> Coastal Commission | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers and Mtns Conservancy |
| <input type="checkbox"/> Colorado River Board | <input type="checkbox"/> San Joaquin River Conservancy |
| <input type="checkbox"/> Conservation, Department of | <input type="checkbox"/> Santa Monica Mountains Conservancy |
| <input type="checkbox"/> Corrections, Department of | <input type="checkbox"/> State Lands Commission |
| <input type="checkbox"/> Delta Protection Commission | <input type="checkbox"/> SWRCB: Clean Water Grants |
| <input type="checkbox"/> Education, Department of | <input type="checkbox"/> SWRCB: Water Quality |
| <input type="checkbox"/> Energy Commission | <input type="checkbox"/> SWRCB: Water Rights |
| <input checked="" type="checkbox"/> Fish & Game Region # 4 _____ | <input type="checkbox"/> Tahoe Regional Planning Agency |
| <input type="checkbox"/> Food & Agriculture, Department of | <input type="checkbox"/> Toxic Substances Control, Department of |
| <input type="checkbox"/> General Services, Department of | <input type="checkbox"/> Water Resources, Department of |
| <input type="checkbox"/> Health Services, Department of | <input checked="" type="checkbox"/> Other <u>US Forest Service/US BLM</u> |
| <input type="checkbox"/> Housing & Community Development | <input checked="" type="checkbox"/> Other <u>San Luis Obispo Co/SLO APC</u> |
| <input type="checkbox"/> Integrated Waste Management Board | |
| <input type="checkbox"/> Native American Heritage Commission | |

Local Public Review Period (to be filled in by lead agency)

Starting Date September 2, 2011 Ending Date October 17, 2011

Lead Agency (Complete if applicable):

Consulting Firm: _____	Applicant: _____
Address: _____	Address: _____
City/State/Zip: _____	City/State/Zip: _____
Contact: _____	Phone: _____
Phone: _____	

Signature of Lead Agency Representative:  Date: 1 Sept 2011

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

INITIAL STUDY OF ENVIRONMENTAL IMPACT

Title and Short Description of Project:

Grazing Lease Agreement, Carrizo Plain Ecological Reserve (“CPER”), Chimineas Units, 2011-2014.

Location of Project:

Southeast San Luis Obispo County, north of State Route 166, south of California Valley consisting of approximately 13,500 acres within the approximately 31,000-acre Chimineas Unit of the Carrizo Plain Ecological Reserve (see Figure 1).

Project Proponent:

California Department of Fish and Game

Said project will not have a significant effect on the environment for the following reasons:

Implementation of the management standards, monitoring, and remediation actions included in the draft Lease Agreement, together with the mitigation measures recommended by this initial study and incorporated into the project, will reduce potential impacts to a less than significant level.

As a result thereof, the preparation of an Environmental Impact Report pursuant to CEQA (Division 13 of the Public Resources Code of the State of California) is not required.

In accordance with Section 21082.1 of the California Environmental Quality Act, the California Department of Fish and Game (Department) has independently reviewed and analyzed the Initial Study and Negative Declaration for the proposed project and finds that the Initial Study and Negative Declaration reflect the independent judgment of the Department.

I hereby approve this project:

_____ Date: _____

PROJECT INFORMATION	
1. Project Title:	Grazing Lease Agreement, Carrizo Plain Ecological Reserve (“CPER”), Chimineas Units, 2011-2014.
2. Lead Agency Name and Address:	Department of Fish and Game Central Region Attn: Regional Manager 1234 E. Shaw Ave. Fresno, CA 93710
3. Contact Person and Phone Number:	Bob Stafford, Associate Biologist California Dept. of Fish and Game P.O. Box 6360 Los Osos, CA 93412 805.528.8670
4. Project Location:	<p>Southeast San Luis Obispo County, north of State Route 166, south of California Valley consisting of approximately 13,500 acres within the approximately 31,000-acre Chimineas Unit of the Carrizo Plain Ecological Reserve (CPER) (see Figure 1)</p> <p>The Premises associated with the Draft Lease Agreement lie within the Chimineas Unit of the CPER which is located within Ranges 18E-22E of Townships 31S and 32S of the Mount Diablo Base and Meridian, and Ranges 28W-30W of Townships S11N and S12N of the San Bernardino Base and Meridian, which occur within six United States Geological Survey (USGS) 7.5 minute quadrangles (see Table 1).</p>
5. Project Sponsor’s Name and Address:	California Department of Fish and Game 1234 E. Shaw Avenue Fresno, CA 93710
6. General Plan Designation(s):	Recreation, Rural Lands

7. Zoning:	Recreation, Rural Lands
8. Description of Project: (Describe the whole action involved, including, but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)	Execution of a 3 year grazing lease between the California Department of Fish and Game and Dr. Neil Dow allowing managed grazing on approximately 13,500 acres of the Chimineas Unit of the Carrizo Plain Ecological Reserve.
9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)	The CPER occurs within a rural region characterized primarily by large tracts of public land and medium to large private land holdings utilized primarily for cattle grazing and dry land farming (Figure 2). Rural communities in the region include California Valley in the north, with approximately 300 residents, and New Cuyama in the south, where approximately 500 people reside (2000 US Census).
10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)	None.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input checked="" type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance | <input type="checkbox"/> None |

Table 1 -- Location of the Chimineas Unit of the CPER With Respect to US Geological Survey 7.5 Minute Quadrangles

Unit	Quadrangle	Base and Meridian	Township	Range	Section(s)	
Chimineas	Branch Mountain	Mount Diablo	31S	18E	22,26,27,34,&35 3,14,15,16,22,&	
	Branch Mountain	Mount Diablo	32S	18E	23	
	Chimineas Ranch	Mount Diablo	31S	18E	25 & 26	
	Chimineas Ranch	Mount Diablo	31S	19E	31-34	
	Chimineas Ranch	Mount Diablo	32S	18E	13	
	Chimineas Ranch	Mount Diablo	32S	19E	24	
	Miranda Mountain	Pine	San Bernardino	12N	30W	25 & 26
	Miranda Mountain	Pine	Mount Diablo	32S	18E	27
	Painted Rock		Mount Diablo	32S	20E	19
	Taylor Canyon		San Bernardino	11N	28W	5 & 6
	Taylor Canyon		San Bernardino	11N	29W	1 & 2
	Taylor Canyon		San Bernardino	12N	28W	31 & 32
	Taylor Canyon		San Bernardino	12N	29W	33-36
	Taylor Canyon		Mount Diablo	32S	18E	25 & 36
	Taylor Canyon		Mount Diablo	32S	19E	26-36

DETERMINATION

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

I find that although the proposed project **COULD** have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name

Title

Agency

DISCUSSION OF POTENTIAL IMPACTS

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less-Than-Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 6. Earlier Analysis Used. Identify and state where they are available for review.
 7. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 8. Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
 9. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
10. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
11. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
12. The explanation of each issue should identify: the significance criteria or threshold, if any, used to evaluate each question; and the mitigation measure identified, if any, to reduce the impact to less than significance.

This initial study (IS) was prepared in accordance with the provisions of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines to identify and evaluate the potential environmental impacts associated with the execution of a Lease Agreement to allow managed grazing on a portion of the Chimineas Unit of the Carrizo Plain Ecological Reserve (CPER) for a period of three years. This IS concludes that approval and implementation of the Draft Lease Agreement would result in “less-than-significant impacts” or “no impacts” to the environment.

The allowable uses of the premises and other activities described in the draft Lease Agreement were evaluated for their potential adverse effects on the environment. The environmental analysis was conducted concurrent with the development of the Draft Lease Agreement. Impact minimization measures were incorporated into the Draft Lease Agreement to help ensure that planned actions that may occur during the term of the Lease will not result in significant adverse environmental impacts. Although the CEQA analysis summarized in this IS is intended to be adequate for future activities consistent with the terms and conditions of the Draft Lease Agreement, some future actions may require additional CEQA analysis and documentation. All activities that may be implemented in the future as a result of adoption of the Draft Lease Agreement must be subjected to CEQA review according to CEQA Guidelines Section 15168, and in light of the information provided in this IS, to determine if additional CEQA documentation is necessary. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164.

Environmental Baseline Conditions

The assessment of potential adverse environmental impacts provided in this initial study and draft negative declaration is based on environmental conditions that existed within the CPER in August 2011, consistent with Section 15125(a) of the State CEQA Guidelines and guidance provided by the Courts¹. The baseline conditions are described in greater detail below.

For the purpose of this document, the Chimineas Unit refers collectively to the North Chimineas Unit and the South Chimineas Unit of the CPER. The Chimineas Unit of the CPER is a former cattle ranch and private game preserve which was acquired by the Department of Fish and Game (Department) for purposes of establishing an Ecological Reserve in accordance with Title 14 of the California Fish and Game Code. Land within much of the Chimineas Unit of the CPER has been grazed by cattle throughout its recent history. Federal property until 1883, land within the unit was part of a 20,000-acre purchase by J. H. Hollister and Frederick Adams that created the Chimineas Ranch, which was named for the remains of an old hearth and chimney located at the ranch headquarters. By 1888 the Chimineas Adobe, which is part of the present-day Chimineas Unit Headquarters house, was erected. In the late 1800s, the Reis family acquired the Chimineas Ranch and held it until the 1930s, when it was purchased by Claude Arnold. The Arnold family expanded the ranch until 1972 when it was sold to the Robertson Family from Texas. In 1999 the Robertson Family sold the Chimineas Ranch to a Dr. Neil Dow, who renovated the ranch house and operated the cattle ranch.

Cattle grazing operations on the Chimineas Ranch included both the private lands as well as grazing allotments on adjacent federal lands. These include the approximately 6,353-acre Chimineas allotment and the 5,529 acre Gifford allotment managed by the US Forest Service (USFS), and two allotments

¹ In *Communities for a Better Environment v. South Coast Air Quality Management District* (No. S161190, March 15, 2010) the California Supreme Court ruled that the analytical baseline against which project effects are measured should generally be the physical conditions existing at the time of the analysis. The existing conditions are summarized below in the Project Description.

managed by the Bureau of Land Management (BLM): the 3,914-acre North Chimineas allotment and the 4,386-acre Chimineas South allotment.

Livestock grazing has been one of the primary land uses on the Chimineas Ranch since at least the 1860's. Exact figures on the number of cattle using the ranch are unavailable for the early years. However, beginning in the 1940's and up until 1995, the base operation was reported to be between 1,000 and 1,200 cattle year round (Ross Nyswonger pers com). Mr. Nyswonger, who has held the position as on-site ranch manager since 1992, recalls that the base herd was reduced to 800 animals from 1996-1998. These estimates appear to be conservative since ranch records and newspaper articles from the 1940's through 1970 indicated that from 2,000 to "several thousand" head of cattle utilized the ranch during this period. Additionally, the ranch was advertised as being able to carry 1,500 cows on an average year when it sold in 1998. Most recently, Dr. Dow had a herd of around 600 animals prior to the acquisition by the Department (1999-2004) and between 460 and 590 (average 536) cattle have utilized the property under prior leases between the Department and Dr. Dow (2005-2011). The proposed project allows for up to 450 head of livestock.

Dry land farming for grain (wheat and barley) has historically occurred on the flat and rolling hills in the northern part of the Chimineas Unit, as well as the ancient river terraces in the south. As mapped by the BLM, an estimated 6,585 acres on the northern portion of the Unit were in cultivation in the 1980s. Approximately 2789 acres were removed from cultivation and enrolled in the federal Conservation Reserve Program (CRP) in 1987. Grazing was also eliminated on the CRP lands at this time. Cultivation ceased on the remaining lands in the late 1990s but livestock grazing continued.

Since acquiring the Chimineas Unit in 2002 (southern 14,314 acres) and 2004 (northern 15,882 acres), the Department has continued to graze those portions of the Chimineas Unit that were grazed at the time of acquisition in order to maintain habitat conditions that support several rare and endangered species for which the property was acquired, including San Joaquin kit fox and burrowing owl. The Department has installed fences to exclude cattle from sensitive communities, including the riparian systems and ponds within the San Juan Creek drainage, and conducted a suite of other management activities including installation of additional water sources (e.g. ponds and troughs) to support wildlife including tule elk, deer, and bats. The Chimineas Unit is used for upland and big game hunting, through special hunt programs sponsored by the Department. The Chimineas Unit also has been used for several research studies and education programs designed to promote regional conservation of the rare biological systems present on the reserve. Dr. Dow has remained the lessee under the terms of prior lease agreements with the Department and is the proposed lessee (as per the lease) for this analysis. The primary reasons for retaining Dr. Dow are;

1. Over the terms of the proposed lease, it is anticipated that Dr. Dow will continue to hold the federal leases on the USFS and BLM lands. The federal lands are mixed in with the Department lands. Management of these lands is done most effectively through a single lessee especially since federal law requires that livestock on BLM and USFS lands be fenced out if the adjacent landowner wishes to exclude their lands from the federal leases. Funding is not available to install these fences.
2. Dr. Dow was the most recent private owner of the Chimineas ranch and he has held all of the prior Department leases. With the exceptions described in this document (exclusion of cattle from riparian zones, fewer livestock, and tighter standards on grazing operations including monitoring), the livestock operation under the proposed lease is the same as it has been since 1999.

Project Description and Setting

Introduction

The California Department of Fish and Game intends to execute a Lease Agreement in accordance with California Fish and Game Code Section 1010 to allow managed grazing activities on approximately 13,500 acres of the approximately 31,000-acre Chimineas Unit of the Carrizo Plain Ecological Reserve (“CPER”).

Project Location

The Chimineas Unit of the CPER is located within and immediately west of the Carrizo Plain—a large inland valley within the Inner Coast Range Mountains in southeastern San Luis Obispo County, central California. The area is bordered to the west by the La Panza Range, to the south by Highway 166 and the Cuyama Valley, to the east by the Caliente Range, and to the north by the upper watershed of San Juan Creek.

The premises to be leased (“Premises”) include approximately 13,500 acres of the Chimineas Unit as shown on Figure 3. However, the following areas are specifically excluded from the Premises:

- The Main Ranch Complex;
- Any areas reserved by the Department for the purpose of restoration as described in Section 4 of the draft Lease Agreement
- The CRP North, CRP South, and CRP landing field pastures of the Reserve Property previously held in the Conservation Reserve Program (approximately 3,000-acres)
- The fenced in portions of the following riparian pastures - Barrett Creek, San Juan Creek, Broken Dam, Taylor Pond, and Gillam Spring; and
- Those portions of the Gillam, Taylor, East Grantline, and West Grantline pastures where fencing excludes livestock from existing federal leases.

Purpose and Objectives of the Project

The primary purpose of the Department’s ownership and operation of the CPER, including the Premises, is for wildlife conservation purposes. Specific resources and species to be conserved are grasslands, blue oak and juniper woodlands, tule elk, and numerous sensitive, threatened, or endangered species including burrowing owl and San Joaquin kit fox. Under the terms of the draft Lease Agreement (attached as Exhibit A and described in greater detail below) the lessee agrees that his use of the Premises must be compatible with the maintenance and enhancement of the biological resources of the Reserve Property.

The secondary purposes of the Lease are to provide:

- Maintenance of existing facilities on the Chimineas Unit;
- Site security for the 31,000 acre Reserve Property (collectively the Reserve Property and facilities on it are valued at approximately \$13.5 million);
- Managed grazing consistent with past practices on the Premises; and

- A single grazing operator common to both the Premises and adjacent, unfenced, federal lands, which Lessee grazes pursuant to U.S. Forest Service Term Grazing Lease #3DOCH and U.S. Bureau of Land Management Grazing Lease #GR 0400060.

Draft Lease Agreement

The draft Lease Agreement is attached as Exhibit A and sets forth the allowable uses of the Premises, the term of the lease, as well as management objectives to ensure that the allowable uses are consistent with the purpose and intent of the CPER. The main components of the draft Lease Agreement that pertain to CEQA compliance include the following:

- **Purposes of the Lease.** As described above, under the terms of draft Lease Agreement the Lessee agrees that his use of the Premises must be compatible with the maintenance and enhancement of the biological resources of the Reserve Property.
- **Term.** The term of the Lease is three years commencing on or around October 1, 2011 and ending on September 30, 2014.
- **Exclusions From Areas to Be Grazed.** In addition to the areas described above that are specifically excluded from the Premises for grazing purposes, the Department reserves the right to exclude from the Premises, one or more areas not to exceed 100 acres per calendar year or more than 300 acres for the term of the lease. Such excluded acreage shall be in one or more areas selected by the Department from time-to-time, for the purpose of protecting wildlife habitat improvements and recreation developments.
- **Allowable Use of the Premises.** The draft Lease Agreement sets forth limitations on the use of the Premises relative to managed grazing activities. In sum, grazing activities are to be conducted in a manner that benefits habitat for annual grassland, upland game, and juniper/blue oak woodland species that include (but are not limited to) San Joaquin kit fox and burrowing owls. To that end, Exhibit B of the draft Lease Agreement sets forth limitations on the number of animal units that may be allowed on the Premises, as well as standards for biomass and residual dry matter to be maintained on the areas to be grazed. Under the terms of the draft Lease Agreement, the allowable number of animal units on the Premises may exceed 350 only so long as the lessee remains in compliance with existing lease agreements for grazing on adjacent federal lands.

Table 2: Allowable Use of The Premises for Grazing		
	Base Ranch Operation Year Round Resident Herd Size For Premises (Animal Units ¹)	Maximum Animal Units Allowed On Premises At Any One Time (Animal Units ¹)
With Adjacent Federal Grazing Allotments	350	450
Without Adjacent Federal Grazing Allotments	250	350
<p>Notes</p> <ol style="list-style-type: none"> 1. Includes cows plus bulls, horses and replacement heifers and/or stockers from the resident herd. 2. The total forage available for the resident cow/calf operation is 3,600 Animal Unit Months (AUMs); one AUM is the amount of forage consumed by one “animal unit” (AU) in one month. For the purposes of this lease, one animal unit is equivalent to one cow, with or without a suckling calf; or one bull; or one horse; or one weaned steer or replacement heifer. 3. A supplemental CEQA document will be prepared for any necessary increases in stocking numbers as per the proposed lease. 		

- **Monitoring.** To ensure that grazing activities are conducted in a manner that achieves the overall habitat and biodiversity objectives for the CPER, the draft Lease Agreement sets forth monitoring requirements and remediation actions to be taken to ensure the biomass and residual dry matter standards are achieved and maintained over the term of the lease. Exhibit B of the draft Lease Agreement describes the various grazing management units, the corresponding biomass and residual dry matter objectives for each unit, as well as remedial actions to be taken to ensure the standards are met and maintained (summarized below in Table 3). Exhibit B also describes the methodologies to be used to measure the biomass and RDM, and the methodologies to be used to document the monitoring efforts.
- **Overuse of the Premises.** The draft lease Agreement prohibits overuse of the Premises which will be determined by the ongoing monitoring requirements for biomass and RDM described above. The draft Lease Agreement requires the lessee to make adjustments in livestock numbers and/or locations to ensure the biomass/RDM standards are maintained.
- **Increases in Stocking Numbers** – In the event that the herd size detailed in Table 2 is unable to reduce grass heights to prescribed levels, the proposed grazing lease contains provisions for increasing the number of livestock (stockers) using the facility. These conditions could occur with a series of years with above average precipitation or if the lessee is unable to stock at the levels described above. Those units being managed for burrowing owls would be the most likely to need any potential increases in livestock. If an increased number of livestock is needed, the Department will conduct a separate CEQA analysis for the increase in livestock numbers prior to allowing additional cattle to utilize the facility.

- **Protection of Cultural Resources.** The draft Lease Agreement excludes from grazing those areas where significant cultural resources have been previously identified, and reserves the right of the Department to exclude any portion of the Premises from livestock operations in the event such activities have the potential to adversely impact previously undiscovered cultural resources.

Table 3. Summary of Grazing Objectives By Management Unit

Management Unit Focus	Management Units (See Figure 3)	Target Species	Management Objectives	Monitoring Events	Remedial Actions
Short Grass	Unit 31 Unit 32 Scale Garcia Strip Garcia Farming	Burrowing Owl San Joaquin kit fox Pallid bat Horned lark	<p>Primary Objective: At least 75% of all management units with under 3 inches of standing annual vegetation by May 1.</p> <p>Secondary Objective: No more than 25% of such management units may have an RDM of less than 300 lbs/acre.</p>	<p>Spring grass height measurements are the primary monitoring event for these management units.</p> <p>RDM monitoring will also be required to ensure that management units are not overutilized.</p>	<ol style="list-style-type: none"> 1. If more than 25% of the management unit exceeds 3 inches in grass height during the owl nesting season (May-September), adjustments in the number of animals and/or distribution shall be made with the objective being to reduce vegetation height. 2. If the year prior to measuring fall RDM is an average production year, and >25% of the management unit is over 750 lbs/ac, distribution will be adjusted to more fully utilize the areas which are mapped in those classes. 3. However, if the year prior to measuring fall RDM is an above-average production year, adjustments in stocking rate shall be made with caution, increasing the number of stockers and/or replacement heifers (rather than increases to base cow herd) to increase utilization.
Upland Game	White Rock Feed Lot (potentially)	Doves Quail	<p>Primary Objective: Between 25% and 75% of the management unit will be less than 750 lbs RDM per acre by September 1.</p>	<p>Monitoring biomass on or about September 1 will be the primary monitoring event; RDM monitoring will also be done.</p> <p>Spring/summer biomass measurements will be consistent with meeting September 1 biomass requirements and Fall RDM requirements.</p> <p>Spring sampling and mapping would be a remedial monitoring event if Fall RDM objectives are not met.</p>	<ol style="list-style-type: none"> 1. If more than 25% of the management unit falls below 500 lbs/acre at any time then animals will be taken off the management unit and not turned out until: <ol style="list-style-type: none"> a. At least 50% of the management unit meets or exceeds 500 lbs/acre and, b. No more than 10% of the management unit falls below 300 lbs/acre, including green up. 2. If more than 25% of the management unit exceeds 750 lbs/acre during summer, adjustments in the number and/or distribution of animals shall be made to meet RDM requirements; 3. Spring biomass monitoring will performed in the following year. 4. If the year prior to measuring fall RDM is an average year, and >25% of the management unit is over 750 lbs/ac, distribution will be adjusted to more fully utilize the areas which are mapped in those classes. However, if the year prior to measuring fall RDM is an above-average production year, adjustments in stocking rate should be made with caution, increasing the number of stockers and/or replacement heifers (rather than increases to base cow herd) to increase utilization.

Woodland	Garcia Little Garcia Red Tank Airplane Horse Headquarters, Thousand Acre Barrett	Blue oak and juniper woodlands	<p>Primary Objective: At least 75% of the management units with RDM of more than 1,000 lbs/acre.</p> <p>Secondary Objective: No more than 10% of the management unit with RDM less than 300 lbs/acre RDM</p>	<p>Fall RDM mapping is the primary monitoring event for these management units.</p> <p>Spring biomass monitoring may be necessary if the primary objective is not met.</p>	<ol style="list-style-type: none"> 1. If either the Primary or Secondary management objectives are not satisfied: <ol style="list-style-type: none"> a. Animals will be taken off the management unit and not turned out until: <ol style="list-style-type: none"> i. At least 90% of the management unit meets or exceeds 1,000 lbs/acre RDM, And ii. No more than 10% of the management unit falls below 300 lbs/acre, including green up. b. Spring biomass monitoring will be performed in the following year. 2. If more than 10% of the management unit is below 500 lbs/ac RDM at any time, adjustments in distribution shall be made to meet the RDM requirements. 3. If more than 25% of the management unit falls below 1,000 lbs/ac RDM for two years in a row, the management unit will be rested the following year.
----------	---	-----------------------------------	--	--	--

Figure 1 – Carrizo Plain Ecological Reserve

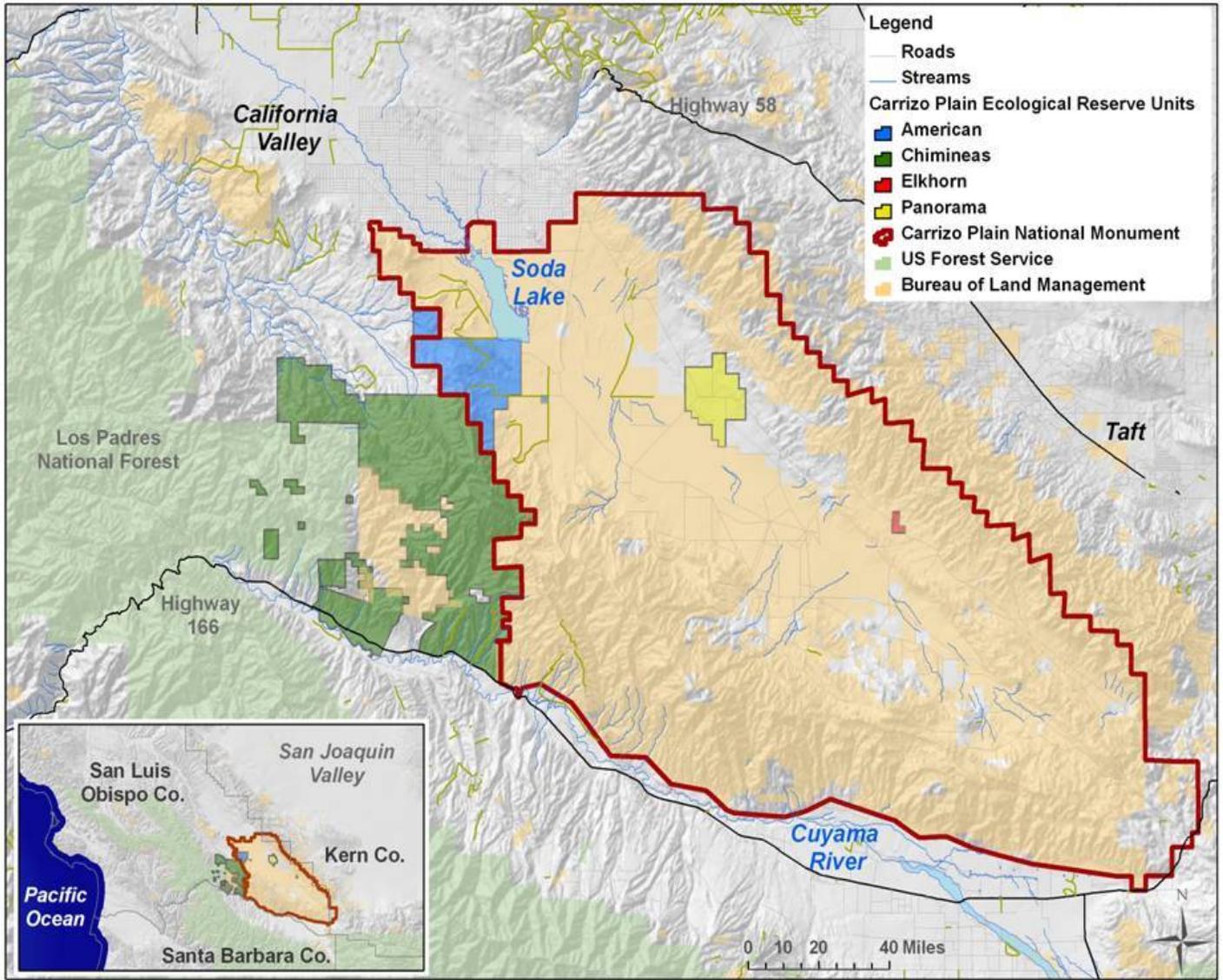


Figure 2 – Surrounding Land Uses

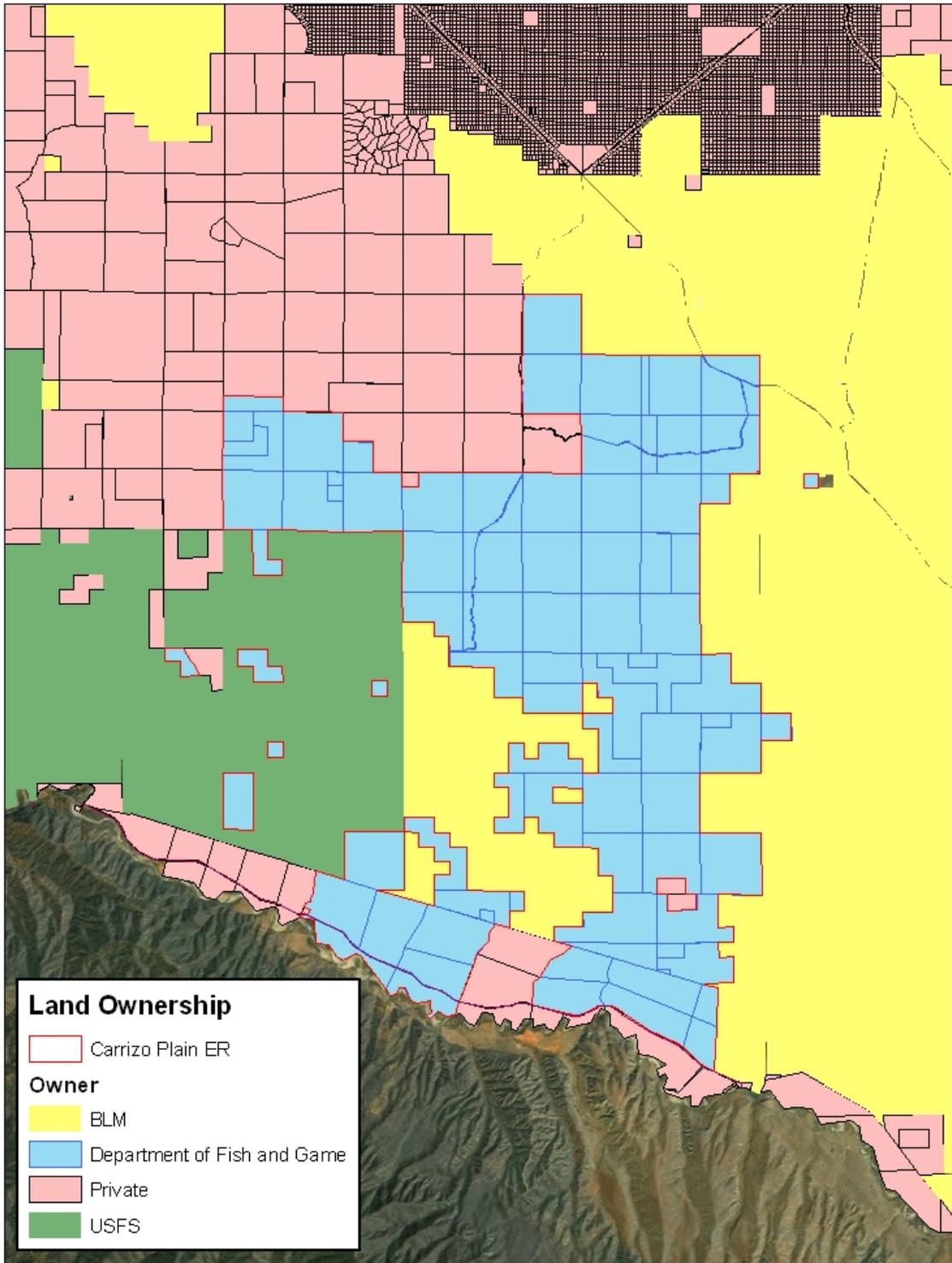


Figure 3 – Lease Premises

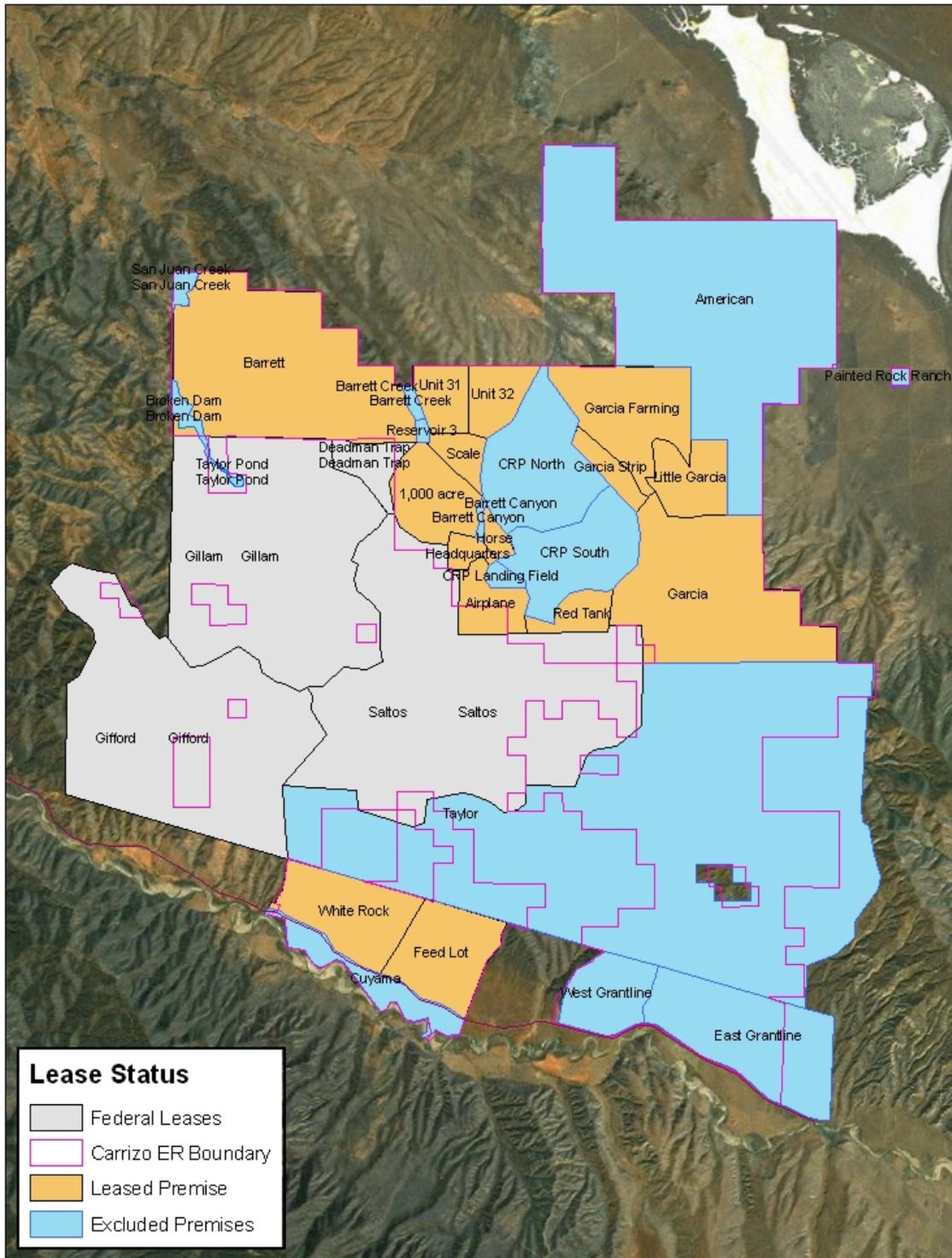
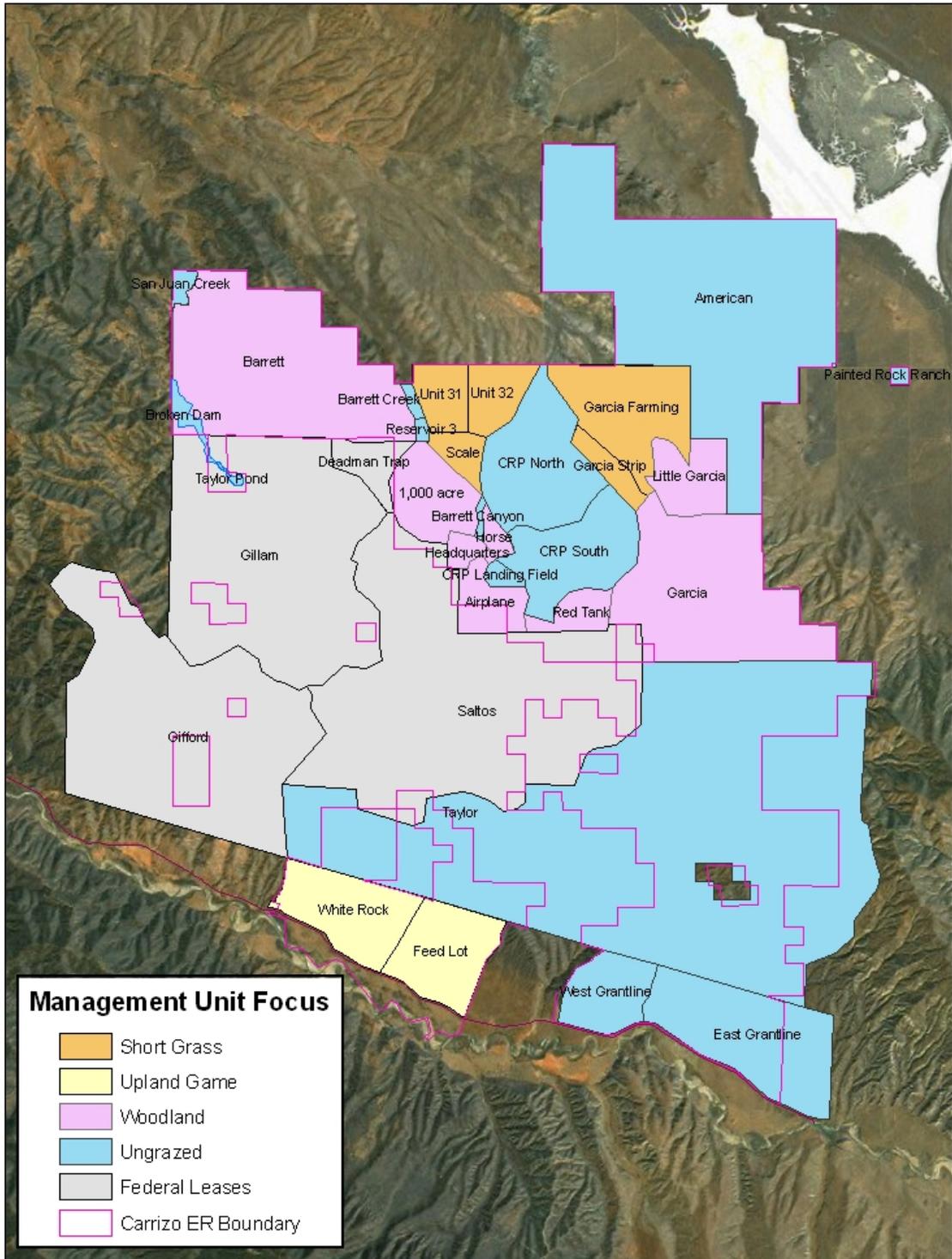


Figure 4 – Ranch House Area To Be Excluded From Premises to Be Grazed



Figure 5 – Habitat Management Units



1. AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusions

a), c) Less Than Significant Impact. The main objective of managed grazing activities on the Premises is to enhance habitat for special status animals such as San Joaquin kit fox and burrowing owl.

Grazing activities have been undertaken on the Premises since the 1860's and the draft Lease Agreement would allow a continuation of grazing activities but with a lower number of livestock than currently allowed, subject to the standards and management objectives provided in the draft Lease Agreement.

The draft Lease Agreement does not authorize the construction of any new buildings, and would not alter views from any scenic vistas. Facility improvements that could result from implementation of the Draft Lease Agreement would be very small in scale (e.g. signage and fencing). Therefore, execution of the Draft Lease Agreement would not adversely affect scenic vistas, views, visual character, or scenic resources, nor would it create light or glare effects.

In addition, future projects consistent with the Draft Lease Agreement would be subject to separate, project-specific environmental review in accordance with CEQA Guidelines Section 15168. The type of additional CEQA analysis undertaken would be determined based on CEQA Guidelines Sections 15162–15164.

b), d) No Impact – The entire project area is not within the viewshed of a scenic highway. Highway 166 has not been designated as a scenic highway. The project will not include the installation or addition of any new light sources or new sources of glare.

2. AGRICULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agricultural Resources.				
<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.</p> <p>Would the project:</p>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Land within much of the Chimineas Unit has been grazed by cattle throughout its recent history. Cattle grazing operations on the Chimineas Ranch included both the private lands as well as grazing allotments on adjacent federal lands. These include the approximately 12,000-acre Chimineas Allotment managed by the US Forest Service, and two allotments managed by the BLM: the 3,914-acre North Chimineas allotment and the 4,386-acre Chimineas South allotment.

Livestock grazing has been one of the primary land uses on the Chimineas Ranch since at least the 1860's. Exact figures on the number of cattle using the ranch are unavailable for these early years. However, beginning in the 1940's and up until 1995, the base operation (the average number of livestock on the ranch) was reported to be between 1,000 and 1,200 cattle year round according to Mr. Ross Nyswonger the ranch manager. (Ross Nyswonger pers com). Mr. Nyswonger further recalled that the base herd was reduced to 800 animals from 1996-1998.

Estimates of the historic size of the base herd appear to be conservative since ranch records and newspaper articles from the 1940's through 1970 indicate that between 2,000 to "several thousand" head of cattle were kept on the ranch each year during this period. Additionally, the ranch was advertised as being able to carry 1,500 cows on an average year when it sold in 1998. Most recently, the current lessee, Dr. Neil Dow, had a herd of around 600 animals prior to acquisition of the Ranch by the Department (1999-2004) and between 460 and 590 (average 536) cattle have utilized the property under prior leases between the Department and Dr. Dow (2005-2011). The draft Lease Agreement allows a base herd of 350 head of livestock (assuming federal grazing leases remain in good standing) and a maximum of 450 head of livestock to be on the Premises at any given time, which is considerably less than the historic use.

Since acquiring the Chimineas Unit in 2002 (southern 14,314 acres) and 2004 (northern 15,882 acres), the Department has continued to graze portions of the Chimineas Unit in order to maintain habitat conditions that support several rare and endangered species for which the property was acquired, including San Joaquin kit fox and burrowing owl. The Department has installed fences to exclude cattle from sensitive communities, including the riparian systems and ponds within the San Juan Creek drainage, and conducted a suite of other management activities including installation of additional water sources (e.g. ponds and troughs) to promote wildlife including tule elk and deer. The Chimineas Unit is used for upland and big game hunting, including special hunt programs sponsored by the Department. The Chimineas Unit also has been used for several research studies and education programs designed to promote regional conservation of the rare biological systems.

Dry land farming for grain (wheat and barley) historically occurred on the flat and rolling hills in the northern part of the Chimineas Unit, as well as the ancient river terraces in the south. As mapped by the BLM, an estimated 6,585 acres on the northern portion of the Unit was in cultivation in the 1980s. Approximately 2789 acres was removed from cultivation and enrolled in the federal Conservation Reserve Program (CRP) in 1987. Grazing was also eliminated on the CRP lands at this time. Cultivation ceased on the remaining lands in the late 1990s but livestock grazing continued.

As discussed in the Project Description, the draft Lease Agreement would authorize continued managed grazing on about 13,500 acres of the Chimineas Units. Grazing activities would be subject to the restrictions, standards, monitoring and remediation activities described in Exhibit B of the draft Lease Agreement and as summarized in Table 3 of the Project Description above. Note that Exhibit B of the draft Lease Agreement sets specific standards for biomass and residual dry matter to be maintained in all areas to be grazed (see Table 3 above). These standards have been established to ensure that grazing activities are sustainable over the term of the lease and so that habitat for special status animal species is enhanced and maintained.

The draft Lease Agreement establishes a maximum number of animal unit months (AUM) to be available on an annual basis on the Premises. The AUM standard was based on the estimated carrying capacity for each individual management unit of the Premises. The estimates were derived from the work of Mr. Keith Gunther, a certified range manager, who has extensive experience evaluating rangelands in this area. In deriving a high and low estimate of the carrying capacity for each management unit on the Premises, Mr. Gunther utilized a combination of factors consistent with accepted range management practices, including:

- distance to water
- wildlife needs
- management ability
- livestock class/type to be grazed
- condition/health of the range
- percentage of area within each range/veg type
- slope of unit
- estimates of historic livestock numbers on the premises

The high and low estimates for each management unit were then included in a GIS file for analyses.

The standard for the maximum number of AUMs (3,600) available on the Premises is the mid-point between the low and high estimates for those management units to be grazed as part of the lease. Mr. Gunther concluded that his estimates of a high and low carrying capacity were 20-50% below what could be available from a strictly forage standpoint. He also indicated that the number of AUMs would need to be increased for those units to be managed for burrowing owl habitat. Limitations on the number of livestock and the maximum number of AUMs included in the draft Lease Agreement were chosen to best achieve the goals of avoiding impacts to sensitive plants and animals from grazing.

Standards for biomass and residual dry matter (RDM) set forth in the lease agreement were derived from the habitat types present in a particular management unit and the specific management objectives for those habitats as described in Table 2 of Exhibit B of the draft Lease Agreement. As required by Section 7 of the draft Lease Agreement (and Figure 5), livestock will be used to maintain or improve habitat on a subset of management units. As discussed in Exhibit B, specific resources to be managed include short grasslands, upland game, and blue oak and juniper woodlands. In order to maintain a diversity of habitat structure within each vegetative community, only a portion of the lands within any particular community type will be grazed.

Short Grasslands will be managed for short structure primarily to benefit burrowing owls. However, managing for short grass will also result in benefits for San Joaquin kit foxes, pallid bats, and horned larks. It has been well documented in the scientific literature that burrowing owls prefer short grass structure and heavily grazed grasslands. A burrowing owl study conducted on the adjacent Carrizo Plain found that owls were nesting in areas with significantly lower annual vegetation. Mean vegetation height at and within 25m of owl nests was only 0.4 cm.

Upland game management units will be managed to enhance native late season forbs, particularly turkey mullein (*Eremocarpus setigerus*), by reducing the cover of nonnative grasses during summer (Duncan 1976). Turkey mullein has been documented to be one of the primary food sources for small mammals and upland game (Browning 1959, Browning 1962, Duncan 1968).

The woodland management units will have two separate goals. In the case of oak woodlands, maintaining oak tree recruitment will be the goal. Recruitment of blue oaks has been documented as a problem throughout the species range (Mensing 1992, Swiecki and Bernhardt 1998). As described below, blue oak woodlands in the lease area are regenerating under current grazing management strategies. Therefore, future management practices will be aimed at emulating those of the past. For juniper woodlands, the goal will be to reduce the potential for stand destruction by fire through the reduction of persistent summer biomass. California junipers (*Juniperus californica*) are killed by fire and it can often take over 100 years to reestablish stands of this species (Sugihara et al. 2006). Dense stands of nonnative annual grasses often provide the fuel to carry fires between trees and stands (Sugihara et al 2006). The objective will be to reduce fine fuel loads over a portion of the juniper woodlands to help prevent a catastrophic fire from removing all of the juniper stands.

Under the terms of the draft Lease Agreement, grazing activities will be subject to ongoing monitoring to ensure that these standards are achieved and maintained. Exhibit B describes the methodologies to be used for such monitoring and for reporting the results to the Department. In the event monitoring reveals that the standards for residual dry matter may not be achieved, mandatory remedial actions are required as set forth for each grazing unit in Table 3.

Conclusions

a), b) No impact. Execution of the draft Lease Agreement will authorize the continued managed grazing on a 13,500 acre portion of the Chimineas Units. No development is authorized that would convert

existing agricultural land to a non-agricultural use. Accordingly, execution of the Draft Lease Agreement will not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Both existing zoning and the General Plan designate the Premises as Rural Lands. Grazing activities are an allowable use in this zoning district. However, properties owned and managed by the State of California are not subject to local land use regulations.

The Premises is not subject to an existing Williamson Act contract.

c) Less than significant. As discussed above, a portion of the Premises was previously used for the cultivation of crops and these areas are now part of the livestock operation. The cultivation activities ended in 1996 and are not contemplated to be resumed by the Department. The portions of the Premises where grazing activities will be authorized by the draft Lease Agreement have been grazed for many years. The number of animal units authorized by the draft Lease Agreement is fewer than numbers currently allowed. In addition, the areas where grazing may be allowed by the draft Lease Agreement are more restrictive than in previous grazing leases for the Premises. For example, areas around springs, riparian corridors and other water bodies have been excluded, in addition to the specific areas outlined in the Project Description, above. Nonetheless, the draft Lease Agreement does not authorize any activities that would result in the conversion of agricultural land to a non-agricultural use.

In addition, future projects consistent with the Draft Lease Agreement contemplated by the Lessee would in turn be subject to separate, project-specific environmental review in accordance with CEQA Guidelines Section 15168. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164.

3. AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

The CPER lies entirely within the South Central Coast Air Basin (SCCAB) which includes all of San Luis Obispo, Santa Barbara, and Ventura counties. The climate of the San Luis Obispo County area and all of the SCCAB is strongly influenced by its proximity to the Pacific Ocean and the location of the semi-permanent high pressure cell in the northeastern Pacific.

Federal and state standards have been established for six criteria pollutants, including ozone (O3), carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), particulates less than 10 and 2.5 microns in diameter (PM10 and PM2.5), and lead (Pb). California air quality standards are identical to, or more strict than, federal standards for all criteria pollutants.

San Luis Obispo County Attainment Status

Pollutant	Averaging Time	California Standards*		Federal Standards*	
		Concentration*	Attainment Status	Concentration	Attainment Status
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	Non-Attainment	-	Unclassified/ Attainment***
	8 Hour	0.070 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)	
Respirable Particulate Matter (PM ₁₀)	24 Hour Annual Arithmetic Mean	50 µg/m ³	Non-Attainment	150 µg/m ³	Unclassified/ Attainment
		20 µg/m ³		-	
Fine Particulate Matter (PM _{2.5})	24 Hour	No State Standard	Attainment	35 µg/m ³	Unclassified/ Attainment
	Annual Arithmetic Mean	12 µg/m ³		15 µg/m ³	
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Unclassified
	1 Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		-	
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 (57 µg/m ³)	Attainment	0.053 ppm (100 µg/m ³)	Unclassified
	1 Hour	0.18 ppm (330 µg/m ³)		-	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	-	Attainment	0.030 ppm (80 µg/m ³)	Unclassified
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (365 µg/m ³)	
	3 Hour	-		0.5 ppm (1300 µg/m ³)**	
	1 Hour	0.25 ppm (655 µg/m ³)		-	
Lead*	30 Day Average	1.5 µg/m ³	Attainment	-	No Attainment Information
	Calendar Quarter	-		1.5 µg/m ³	
	Rolling 3-Month Average*	-		0.15 µg/m ³	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.	Attainment	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm µg/m ³	Attainment		
Vinyl Chloride*	24 Hour	0.01 ppm (26 µg/m ³)	No Attainment Information		

*For more information on standards visit <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>

** Secondary Standard

*** San Luis Obispo County ozone attainment status is pending EPA action on the new ozone standard, scheduled to be released December 31, 2010. Revised November 3, 2010

According to the San Luis Obispo Air Pollution Control District, CEQA Air Quality Handbook (page 3-4) diesel particulate matter (DPM) is seldom emitted from individual projects in quantities which lead to

local or regional air quality attainment violations. DPM is, however, a toxic air contaminant and carcinogen, and exposure to DPM may lead to increased cancer risk and respiratory problems. Certain industrial and commercial projects may emit substantial quantities of DPM through the use of stationary and mobile on-site diesel-powered equipment as well diesel trucks and other vehicles that serve the project.

Conclusions

a), d) No Impact. The project is the execution of a lease agreement to allow the continued managed grazing of about 13,500 acres of the CPER over a three year period. It does not authorize any construction activities or the intensification of land use beyond the existing grazing activities on the Premises. The continued use of the Premises for grazing is consistent with the adopted Air Quality Management Plan and results neither in the significant emission of air pollutants governed by the State or federal governments nor in a violation of federal or State air quality standards. The nearest receptor is located at the Carriza Plains elementary school over 11 miles north of the project site.

b), c), Less Than Significant. Ongoing grazing operations will result in the use of motor vehicles for the maintenance of the Premises, for ongoing monitoring activities and for transporting animals among the grazing units and from the Premises to offsite locations. Assuming an average of 2 total vehicle trips per day, emissions associated with motor vehicle use that may be associated with the draft Lease Agreement would generate emissions that are less than the thresholds of significance adopted by the San Luis Obispo Air Pollution Control District for ROG, NO_x, CO and greenhouse gases, as summarized in Table 5. However, emissions of particulate matter (PM₁₀) will exceed the 25 lbs/day threshold. For this reason, the following mitigation measures will be incorporated into the project:

AQ-1 To minimize the generation of particulate matter associated with motor vehicles on unpaved roads serving the Lease Premises, motor vehicle speeds on un-paved roads shall be limited to 15 miles per hour or less.

AQ-2 All activities associated the draft Lease Agreement shall be subject to the provisions of San Luis Obispo County Air Pollution Control District Rule 402 (Nuisance).

e) Less Than Significant. The continued grazing of the Premises may result in the emission of odors associated with livestock congregating at watering areas and/or in holding areas. However, none of the watering or holding areas are located in proximity to permanent residents or other sensitive receptors. For these reasons, impacts associated with the emission of odors are considered less than significant.

In addition, prior to the implementation of any future activities that are inconsistent with the terms of the draft Lease Agreement, the Department would perform additional CEQA review according to CEQA Guidelines Section 15168, in light of the information in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164.

Table 5 -- Comparison of Estimated Operational Emissions With Thresholds of Significance for Operational Emissions

Pollutant	Threshold ¹	Estimated Operational Emissions (lbs/day) ²
Ozone Precursors (ROG + NO _x)	25 /lbs/day	0.06
Fugitive Particulate Matter (PM10)	25 lbs/day	52.00
Carbon Monoxide (CO)	550 lbs/day	0.27
Greenhouse Gases (CO ₂ , CH ₄)	Not Yet Established	23.35

Source: San Luis Obispo Air Pollution Control District, CEQA Air Quality Handbook, December, 2009.

Notes:

1. Daily and annual emission thresholds are based on the California Health & Safety Code Division 26, Part 3, Chapter 10, Section 40918 and the CARB Carl Moyer Guidelines for DPM.
2. URBEMIS v 9.2.4 – Using winter operational emission data to compare to operational thresholds.

4. BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Regulatory Setting

Federal and state endangered species legislation gives special status to several plant and animal species known to occur on or in the vicinity of the Premises. In addition, state resource agencies and professional organizations, whose lists are recognized by agencies when reviewing environmental documents, have identified as sensitive some species occurring on or in the vicinity of the Premises. Such species are referred to collectively as special-status species and include the following: plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered under the federal Endangered Species Act (ESA) or the California ESA; animals listed as “fully protected” under the California Fish and Game Code; animals designated as “Species of Special Concern” by the Department; and plants listed as rare or endangered by the California Native Plant Society (CNPS). Wetlands are specially protected habitats and are governed by section 404 of the Clean Water Act and other laws.

Section 404 of the Clean Water Act (33 U.S.C. § et seq.) provides regulatory protection for water

resources throughout the United States and falls under the jurisdiction of the US Army Corps of Engineers (ACOE). Section 404 of the Clean Water Act (CWA) prohibits the discharge of dredged or fill material into waters of the U.S. without a permit from the ACOE. Waters of the U.S. (often called “jurisdictional waters”) include navigable waters, waters flowing into navigable waters, and adjacent wetlands. The section 404 permitting process includes consultation with the U.S. Fish and Wildlife Service (USFWS) concerning federally protected species. Federal policy mandates that projects requiring section 404 permits result in no net loss of wetland resources. Under section 404, actions in waters of the U.S. may require an individual permit, may be covered by a nationwide or general permit, or may be exempt from regulatory requirements.

Overview of Ongoing and Previous Management and Monitoring Activities

The Department commenced with biological inventories of the CPER in 2002. Initial efforts including small mammal trapping, rare plant surveys, bird surveys, and reptile and amphibian surveys were opportunistic in that specific methodologies and sampling designs were not yet developed. However, locations of any sensitive species observed during these efforts, or observed incidentally to other activities, were recorded with a Global Positioning System (GPS) and entered into a database.

In 2003, the Department began development of a Resource Assessment Program (RAP). In 2004, the program expanded, with biologists throughout the state assigned to the program. A statewide project to inventory resources on Department lands was coordinated, with specific inventory needs identified by each Region. Statewide goals were to:

1. Start with an inventory of wildlife resources and habitats,
2. As inventory progressed, develop long-term monitoring of “indicator” species to help assess changes in habitat condition, and
3. If further resources were available, develop research projects to explore specific management questions.

The objective was to inventory Department lands in a landscape context, so work was envisioned to extend beyond Department property as access and funding were available.

In the Department’s Central Region, which includes the CPER, biologists emphasized inventory of special status species, as well as non-native invasive species related to land management. Initially, high priority was given to sensitive resources that may be impacted by planned activities on Department lands, and as needed for completion of management plans. Surveys were initiated to determine presence, and in some cases distribution, of special status species; to establish an index of population trends of “indicator” species; and to assess habitat. The objective was to assess sensitive species in a broader ecosystem context, so inventories have been designed to include incidental detections of other fauna, inventory of vegetation, presence of potential predator and prey species, and presence and distribution of non-native invasive species.

Vegetation mapping

The Vegetation Map of the CPER, San Luis Obispo County, California was created by the Department’s Vegetation Classification and Mapping Program (VegCAMP). Data from 379 vegetation Rapid Assessment surveys that were conducted from 2005-2008 was analyzed using cluster analysis to produce a vegetation and mapping classification for the study area. The area was delineated and attributed by vegetation type; total cover; conifer tree, hardwood tree and total tree, shrub or herb cover; impacts present; and a subjective assessment of site quality using 2007 1-foot resolution base imagery. The classification and map follow the National Vegetation Classification Standard (NVCS) and Federal Geographic Data Committee (FGDC) standard and State of California Vegetation and Mapping Standards. The minimum mapping unit is one acre, with 0.5 acre for wetland or special types. After a draft map was completed, about half of the polygons were verified in the field, and polygons not visited

were corrected if necessary.

In 2009, VegCAMP biologists used the classification to map the vegetation within the CPER primarily through interpretation of 2007 one-foot resolution aerial imagery. Polygons were attributed to lowest level of the classification hierarchy that could confidently be identified from the image. This was typically the alliance level; however, for herbaceous communities, including grasslands and wetlands, in which dominant species could not be identified in the aerial imagery, mapping occurred at the group level. Attribution of over one half (58%) of the vegetated polygons was verified with field checks in 2009 and 2010.

Rare Plant Surveys

In addition to the vegetative assessments described above, surveys for rare plant populations have been occurring for the past five years. As with the wildlife data, initial efforts had the goal of recording locations for all rare plants as they were encountered. Beginning in 2008, more focused surveys have been undertaken. Surveys are now directed to areas where the appropriate soils and/or associated rare plant species are thought to occur. Over the past 3 field seasons (2008 – 2011), Department botanists have spent at least 1,500 hours searching for sensitive plant populations. All of the rare plant data points to date have been included on the maps associated with this document.

Oak Recruitment Surveys

Beginning in the fall of 2010, Department biologists commenced surveys of blue oak recruitment. Points were selected from sites classified as oak woodland which also had existing vegetation composition data from the VegCAMP surveys. Each point functioned as the center of a 100m by 100m plot. All of the oaks within the survey plot were classified as to diameter at breast height (DBH) size classes as follows: Class 1 = <1", Class 2 = 1"-6", Class 3 = 6"-11", Class 4 = 11"-24", Class5 => 24". These results indicate that blue oaks exhibit a mixed age structure with ongoing regeneration. With 27 plots sampled and 2,002 trees classified, class 1 trees were by far the most abundant (769), followed by classes 2 (382) and 4 (351), class 3 (347), and finally class 5 (153).

Wildlife Visual Encounter Surveys

Visual encounter surveys (VES) were conducted in grazed and ungrazed grasslands of the Chimineas Unit from May 27 - July 4, 2005. North-south transects were selected throughout grasslands, and then walked for observations of birds, reptiles, and mammals and their sign. Identifications included dens, scats, tracks, roost sign, and a road kill, as well as observations of animals. Surveys were conducted in the morning, and were concluded when ambient temperature reached 90° F, per protocol. Forty-three one-half mile transects were surveyed, for a total of 21.5 miles.

Avian Point Counts

Avian point counts were conducted on portions of the CPER from 2005 through 2011 using protocols developed by Point Reyes Bird Observatory (PRBO). In 2005, point counts were conducted on grasslands of the Chimineas Unit between April 20 and May 24. Surveys were conducted for 20 minutes at each point. Thirty-three points were chosen randomly in ungrazed (CRP) grassland and 31 points in grazed grassland.

In 2006, point counts were conducted in juniper woodland and riparian habitat along the Cuyama River of the Chimineas Unit. Fifty points were surveyed in juniper habitat and 28 in riparian habitat with survey duration of 5 minutes at each point. Surveys in 2006 were conducted between May 4 and June 2.

In 2007, point count surveys were conducted at 244 points in all habitat types throughout the Chimineas and American units. Points were placed at 500 m intervals along internal unpaved roads, with the

sampling point at the edge of the road. Points were placed 250-300 m apart along the Cuyama River so that a greater sample size would be obtained for riparian habitat. Each point was marked with a metal stake and numbered tag for future re-sampling. Each point was surveyed once between March 24 and May 26. One hundred thirty-three points were surveyed a second time, and 14 were surveyed three times, with 2007 surveys concluding on June 22. Survey duration at each point was 10 minutes, with species recorded at 5 minute intervals. In 2008, 2010, and 2011, at least 100 of these points were surveyed in representative habitats between April 1 and June 1.

Winter Bird Area Searches

During the winter of 2010/2011, over 50 time constraint areas searches were conducted in grazed and nongrazed grasslands. Each survey location was a 200m x 200m square and all birds seen and heard during the walked transects were recorded.

Incidental Detections

Detections of special status bird species or of species considered unusual for this location were recorded by biologists whenever they were encountered on the reserve. Additionally, an annual bird survey similar to the Christmas bird count was conducted by experienced birders from 2006 to 2009 over one weekend in late April. All bird species heard and seen between about 7:00 AM and 3:00 PM. were noted and GPS readings were recorded for all special status bird observations.

Large Mammal Trend Counts

Annual deer population trend counts were conducted on the Chimineas Unit from 2005-2010. In conjunction with those counts, large and medium-sized mammals (ungulates, carnivores, and other species of management interest) were also counted. A 25.6 mile transect was driven on three days within one week in the fall of each year. Count conditions were standardized as much as possible, including weather conditions, observer, vehicle height, and moon phase. Counts took approximately 2 ¾ hours, and were timed to end as close to dusk as possible. The length of time each count took depended on the number of animals counted.

For each animal seen, a location (waypoint and/or mileage) was recorded, as well as perpendicular distance from the road (transect), time observed, and when possible, age class (juvenile, sub-adult, adult), and gender.

Small Mammal Trapping

Small mammal trapping was conducted on the Chimineas Unit from 2006-2010. The two primary objectives for these efforts were to survey for special status mammal species and to sample across the representative habitats of the reserve. To date, over 3,000 trap nights have been conducted.

In 2005 and 2006, trap lines were set in areas where special status species were thought to be present. Beginning in 2007, a 100 m transect line was established with 10 m spacing on a subset of 52 of the point count stations, across all habitat types. Each small mammal transect crossed perpendicular to the road with the midpoint of the transect on the point count station. Thus, five small mammal trap points, spaced 10 m apart, were set up on either side of the road for a total length of 100 m. Two Sherman live traps were placed at each point on the transect and baited with a commercially available wild bird seed mix. Each small mammal transect was trapped for one night. Species, sex, age (juvenile or adult), weight, and location on the transect of each animal captured was recorded. Once all data were collected, the animal was released in the vicinity where it was captured.

Camera Stations

The main component of this project is to determine the distribution and relative abundance of mesocarnivores on the Chimineas unit. To achieve these goals, a Geographic Information System (GIS) was used to develop a property-wide grid system consisting of 100-ha sample units. The 100-ha sample unit size was chosen because it encompasses the minimum home range size of two of the target species: ringtail (*Bassariscus astutus*) and Western spotted skunk (*Spilogale gracilis*). Each 100-ha plot was systematically sampled using a single remote camera trap.

Within each sample unit, one passive infrared camera trap was placed in an area that had the best chance of being visited by the target species, including game trails, rock outcroppings, and stream sides. If habitat was equal across the sample unit, the camera was placed in the middle of the plot. Each camera trap was baited with scent lure and canned mackerel and monitored weekly until a minimum of 28 camera nights had been achieved. Cameras were programmed to run for 24 hours/day.

Habitat was characterized across the study area using a combination of GIS and manual habitat sampling. Each camera trap location was marked using a GPS unit and those points were plotted on existing digital vegetation maps of the area. Landscape features such as the distance to nearest water source, distance to nearest road, and distance to nearest camera trap were assessed using GIS. Habitat components such as elevation, slope, aspect, canopy cover, and distance to rock outcroppings was assessed from the ground. Vegetation within an appropriate radius of each camera trap was sampled from the ground. Since August of 2009, over 2,500 “trap nights” have been sampled using camera traps in all of the representative habitat types, including grazed and ungrazed grasslands.

Bat Surveys

Acoustical monitors (e.g. Anabat) were set up at several locations associated with water sources in 2005, 2006, 2008, and 2010. In addition, bat ecology workshops were held on the reserve in 2008 and 2009. Mist netting, including the capture and handling of bats, was conducted in addition to acoustical monitoring at the bat workshops. Beginning in 2010, the Department used full spectrum acoustical monitors with auto classifying software.

Tule Elk Telemetry Studies

Tule elk (*Cervus elaphus nannodes*) were reintroduced into the Carrizo Plain in the 1980s. In order to determine movement patterns, home range sizes, and habitat use of the established population, 18 (4 male and 14 female) tule elk were captured and affixed with GPS radio collars between 2005 and 2008. Collars were set to record locations between 1 and 13 hours and to remain on the elk for approximately 2 years. Over 28,000 locations have been obtained from elk in 4 separate subherds.

Ungulate Herd Composition Flights

Fixed wing and helicopter herd composition surveys have been conducted for tule elk and pronghorn over the Carrizo Plain, including the CPER, for at least the past 13 years. The areas are surveyed for tule elk on an annual basis and for pronghorn twice each year, once in winter to assess population numbers and once in late summer to assess fawn recruitment. For each animal seen, a location was recorded, as well as the number of animals and the age and sex classes of those animals. The goal was to count all of the animals in the population.

Giant Kangaroo Rat Flights

Surveys to map the range of occupied giant kangaroo rat habitat were conducted in 2001, 2006, 2009, and 2010. The surveys consisted of flying ½ mile transects over the Carrizo Plain and mapping the extent of giant kangaroo rat activity with a handheld GPS. The data were then transcribed to a GIS system to create a polygon of occupied habitat. (Bean et al 2010).

Western Pond Turtle

Radiotelemetry studies were conducted on selected turtles from both Gilliam and Taylor Pond from September 2005 to December 2006. Nine turtles were fitted with a small transmitter and antenna, attached to the carapace with epoxy. Telemetry was used to track Western Pond Turtle (WPT) movement over the life of the transmitter, approximately 1.5 years. Tracking data included WPT terrestrial and aquatic habitat utilization, seasonal movements for migration and dispersal, and most importantly, nesting sites.

All turtles captured, regardless of whether or not they were affixed with a transmitter, were processed for the following individual species information, morphometrics: weight, sex, age class, carapace length, carapace width, height of shell, plastron length, median plastron length, photo, and any specific comments. All captured WPTs were tagged.

The Department joined in a cooperative effort with Dr. David Pilliod, professor at California State Polytechnic Institute, San Luis Obispo to conduct radio-telemetry studies on WPT at Chimineas. One of his graduate students monitored WPT seasonal movements, behavior, and habitat utilization of turtles from Gilliam and Taylor Ponds. A paper summarizing the movements of pond turtles at these ponds is currently in preparation.

In addition to telemetry studies, Dr. David Germano, California State University, Bakersfield has been collecting size and demographic data within occupied ponds of the Chimineas Unit since 2005, thus providing long term monitoring data.

Cover Boards

Cover boards (4' x 4') were placed at bird point count locations beginning in November 2010 to monitor amphibians and reptiles on the reserve. With the exception of the points on the Cuyama River, all of the bird point count locations have an associated cover board.

Red-legged Frog Assessment

Surveys for California red-legged frogs (CRLF) were periodically conducted at Chimineas in 2007 and 2008 to determine CRLF presence in the ponds and wetland areas. All suitable ponds, streams and rivers located on the Chimineas Unit were surveyed. Protocol for these CRLF surveys was according to USFWS Protocol, August 2005 survey guidelines. Most of the surveys were conducted either by night using spotlight, by day using binoculars, or by day dip-netting for larvae.

Incidental Observations of Amphibians and Reptiles

Locations of amphibian and reptile species of special status were documented whenever they were encountered on the reserve. All of these locations were included into a database which is the basis for the maps in the biological resources section.

Vernal pool surveys

The main purpose of vernal pond surveys was to determine presence of fairy shrimp. Potential survey locations were derived from ground based knowledge of potential pool locations as well as numerous aerial surveys being conducted for large mammals and giant kangaroo rats. At potential pool locations, samples were randomly collected to adequately represent the pond in 2008 and again in 2011. A standard 0.5 micron mesh net was used for sampling a one meter net swipe through the pool at each selected site. A floating wood perimeter was placed in the water to help guide the length of the net swipe. The only vernal pool to have listed fairy shrimp was located on U.S. Forest Service property adjacent to the reserve. Permanent ponds or ponds that were part of an active stream channel were not considered as

potential habitat for fairy shrimp.

Plant Communities of the CPER and the Premises

The CPER features a diversity of plant communities (vegetation) which reflect the reserve’s variable soils, topography and microclimate, hydrology, disturbance, and land use history. The communities differ in plant species composition, animal assemblages, disturbance ecology (e.g. fire ecology), and occurrences of invasive plants, among other factors. Management of this large, landscape-scale ecological reserve will focus on maintaining or enhancing the condition of the diverse mosaic of communities in order to promote the viability of the plant, animal, and other species that they support.

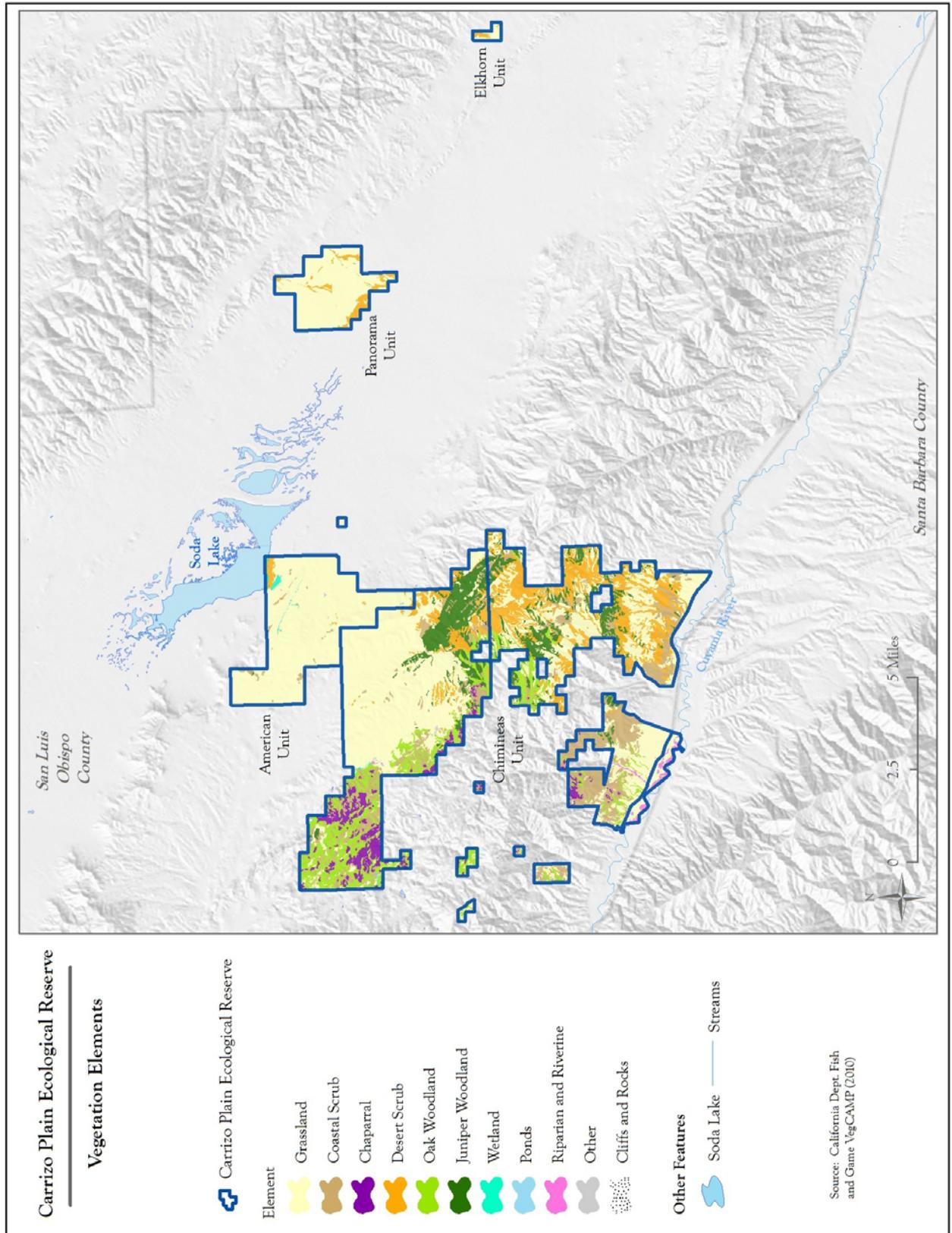
Vegetation types were identified as ‘sensitive’ if they met one or more of the following criteria:

1. Listed as a ‘special community’ on the Department’s current list of sensitive plant communities;
2. Ranked S1 or S2 on The Nature Conservancy Heritage Program;
3. Identified as locally rare or unique, including disjunct occurrences or more widespread communities (e.g., coast live oak woodland).

To inform management as part of the management plan the 57 mapped vegetation types were categorized into ten elements (Table 6). These groups include systems that support similar animal species assemblages, and will generally require similar management and respond similarly to management, owing to similarities in the ecology of the plant species and disturbance ecology. These vegetation elements were created to facilitate the design of ecosystem and multi-species oriented management objectives used for the Department’s lands including ecological reserves. No special status plant communities exist within the boundaries of the lease.

Table 6 -- Habitat Types Of The Chimineas Unit of the CPER		
Element	Chimineas	
	Acres	Percent
Grassland	12,747.2	43.0%
Chaparral	1,250.5	4.2%
Coastal Scrub	4,513.9	15.2%
Desert Scrub	4,240.9	14.3%
Juniper Woodland	3,034.8	10.2%
Oak Woodland	3,546.7	12.0%
Wetland	21.9	0.1%
Ponds	7.4	0.0%
Riparian and Riverine	258.4	0.9%
Cliffs and Rocks	3.1	0.0%
Other	25.5	0.1%
Grand Total	29,650.2	100.0%
Source: Jodi McGraw Consulting, 2011		

Figure 6 -- Vegetation Elements of the CPER



Animal Species

The Carrizo Plain Ecological Reserve supports a diverse assemblage of native animal species, which reflects the reserve's biogeography as well as the diversity and relative intact nature of the habitat conditions it features. The reserve is known to support more than 275 species of vertebrates, including 7 fish, 6 amphibians, 25 reptiles, 186 birds, and 53 mammals (R. Stafford, unpublished data). Though little information is available about invertebrate species, their richness likely reflects the diversity of biogeographic influences and plant species and communities within the reserve.

Special Status Plant and Animal Species

The CPER supports occurrences of numerous rare plant and animal species. These include species that have been listed as threatened, endangered, or of other special status under one or more of the following:

- **Federal Endangered Species Act:** (FE or FT) listed or proposed for listing as threatened or endangered
- **California Endangered Species Act:** (SE or ST) listed or candidates for listing
- **Fully Protected Species:** (DFG-FP) listed under California Fish and Game Code
- **Species of Special Concern:** (CSSC) species of special concern on the special animals list (Department of Fish and Game 2009)
- **Species of Conservation Concern:** species identified by the UFWs as being of conservation concern.
- **California Native Plant Society:** (CNPS) plants that are rare, threatened or endangered in California (Lists 1B and 2);
- **Western Bat Working Group:** (WBWG-H) species ranked as 'high' on the Regional Priority Matrix.
- **CEQA:** other species that meet the definition of rare or endangered under CEQA, including those are not listed but known to be very rare or declining.

Table 7 and Figures 7 and 8 provide a summary of the following:

- The special status plant and animal species known to occur on the Chimineas and American units of the CPER;
- The classification status of each species.
- Whether or not the particular species occurs on the Premises.

Table 7 -- Special Status Species Known To Occur Within the Vicinity of the Chimineas and American Units of the CPER

Common Name	Latin name full	Status	Occurs On The Premises?
Plants			
La Panza mariposa lily	<i>Calochortus simulans</i>	CNPS 1B.3	Yes
California jewelflower	<i>Caulanthus californicus</i>	SE, FE	No
Lemmon's jewelflower	<i>Caulanthus lemmonii</i>	CNPS 1B.2	No
Lost Hills crownscale	<i>Atriplex vallicola</i>	CNPS 1B.2	No
Kern mallow	<i>Eremalche parryi var. kernensis</i>	FE	Potentially
Pale-yellow layia	<i>Layia heterotricha</i>	CNPS 1B.1	No
Munz's tidy tips	<i>Layia munzii</i>	CNPS 1B.2	No
Round-leaf filaree	<i>California macrophylla</i>	CNPS 1B.1	Yes
San Joaquin woolly threads	<i>Monolopia congdonii</i>	CNPS 1B.2, FE	No
Showy madia	<i>Madia radiata</i>	CNPS 1B.1	Yes
Umbrella larkspur	<i>Delphinium umbraculorum</i>	CNPS 1B.3	Yes
Valley larkspur	<i>Delphinium recurvatum</i>	CNPS 1B.2	No
Single-awned spineflower	<i>Chorizanthe rectispina</i>	CNPS 1B.3	No
Coulter's Goldfields	<i>Lasthenia glabrata ssp. coulteri</i>	CNPS 1B.1	No
Jared's peppergrass	<i>Lepidium jaredii ssp. jaredii</i>	CNPS 1B.2	No
Invertebrates			
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT	Potentially
Longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	FE	Potentially
Amphibians			
California Red-Legged Frog	<i>Rana draytonii</i>	FT, CSSC	No
Western Spadefoot Toad	<i>Spea hammondi</i>	CSSC	Yes
Reptiles			
Blunt-nosed Leopard Lizard	<i>Gambelia sila</i>	FE,SE	No
California Legless Lizard	<i>Anniella pulchra pulchra</i>	CSSC	Yes
San Joaquin Coachwhip	<i>Masticophis flagellum ruddocki</i>	CSSC	Yes
Coast Horned Lizard	<i>Phrynosoma coronatum frontale</i>	CSSC	Yes
Pacific Pond Turtle	<i>Actinemys marmorata pallida</i>	CSSC	Yes
Two-Striped Garter Snake	<i>Thamnophis hammondi</i>	CSSC	No
Western Patch-nosed Snake	<i>Salvadora hexalepis virgulata</i>	CSSC	Yes
Birds			
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SE	No
Burrowing Owl	<i>Athene cunicularia</i>	CSSC	Yes
California Condor	<i>Gymnogyps californianus</i>	FE,SE	Potential
Golden Eagle	<i>Aquila chrysaetos</i>	DFG-FP	Yes
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	CSSC	Yes

Table 7 -- Special Status Species Known To Occur Within
the Vicinity of the Chimineas and American Units of the CPER

Common Name	Latin name full	Status	Occurs On The Premises?
Gray Flycatcher	<i>Empidonax wrightii</i>	CSSC	No
Least Bell's Vireo	<i>Vireo bellii pusillus</i>	FE/SE	No
LeConte's Thrasher	<i>Toxostoma lecontei</i>	CSSC	No
Loggerhead Shrike	<i>Lanius ludovicianus</i>	CSSC	Yes
Long-eared Owl	<i>Asio otus</i>	CSSC	Yes
Mountain Plover	<i>Charadrius montanus</i>	CSSC	No
Northern Harrier	<i>Circus cyaneus</i>	CSSC	Yes
Olive-sided Flycatcher	<i>Contopus borealis</i>	CSSC	Yes
Peregrine Falcon	<i>Falco peregrinus</i>	SE-Proposed delisting	Yes
Sandhill Crane	<i>Grus canadensis</i>	CSSC	No
Short-eared Owl	<i>Asio flammeus</i>	CSSC	Yes
Tricolored Blackbird	<i>Agelaius tricolor</i>	CSSC	Yes
Vaux's Swift	<i>Chaetura vauxi</i>	CSSC	Yes
Vesper Sparrow	<i>Pooecetes gramineus affinis</i>	CSSC	Yes
White-tailed Kite	<i>Elanus leucurus</i>	DFG-FP	Yes
Willow Flycatcher	<i>Empidonax traillii</i>	SE	Yes
Yellow Warbler	<i>Dendroica petechia</i>	CSSC	Yes
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	CSSC	Yes
Mammals			
American Badger	<i>Taxidea taxus</i>	CSSC	Yes
Big Free-tailed Bat	<i>Nyctinomops macrotis</i>	CSSC	No
Bryant's woodrat	<i>Neotoma bryantii</i>	CSSC	Yes
Fringed Myotis	<i>Myotis thysanodes</i>	WBWG-H	Yes
Giant Kangaroo Rat	<i>Dipodomys ingens</i>	FE,SE	No
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE,ST	Yes
Pallid Bat	<i>Anrtozous pallidus</i>	CSSC	Yes
Ringtail	<i>Bassariscus astutus</i>	DFG-FP	Expected
San Joaquin Antelope Squirrel	<i>Ammospermophilus nelsoni</i>	ST	No
San Joaquin Pocket Mouse	<i>Perognathus inornatus</i>	CSSC	Yes
Short-nosed Kangaroo Rat	<i>Dipodomys nitratoides</i>	CSSC	No
Southern Grasshopper Mouse	<i>Onychomys torridus tularensis</i>	CSSC	No
Townsend's Big-eared Bat	<i>Plecotus towsendii</i>	CSSC	Yes
Western Mastiff Bat	<i>Eumops perotis californicus</i>	CSSC	Yes
Western Red Bat	<i>Lasiurus blossevillii</i>	CSSC	Yes
Fish			
Arroyo Chub	<i>Gila orcutti</i>	CSSC	No
California Roach	<i>Lavinia symmetricus</i>	CSSC	No

Figure 7 -- Special Status Plant Species Known To Occur on the Chimineas and American Units of the CPER

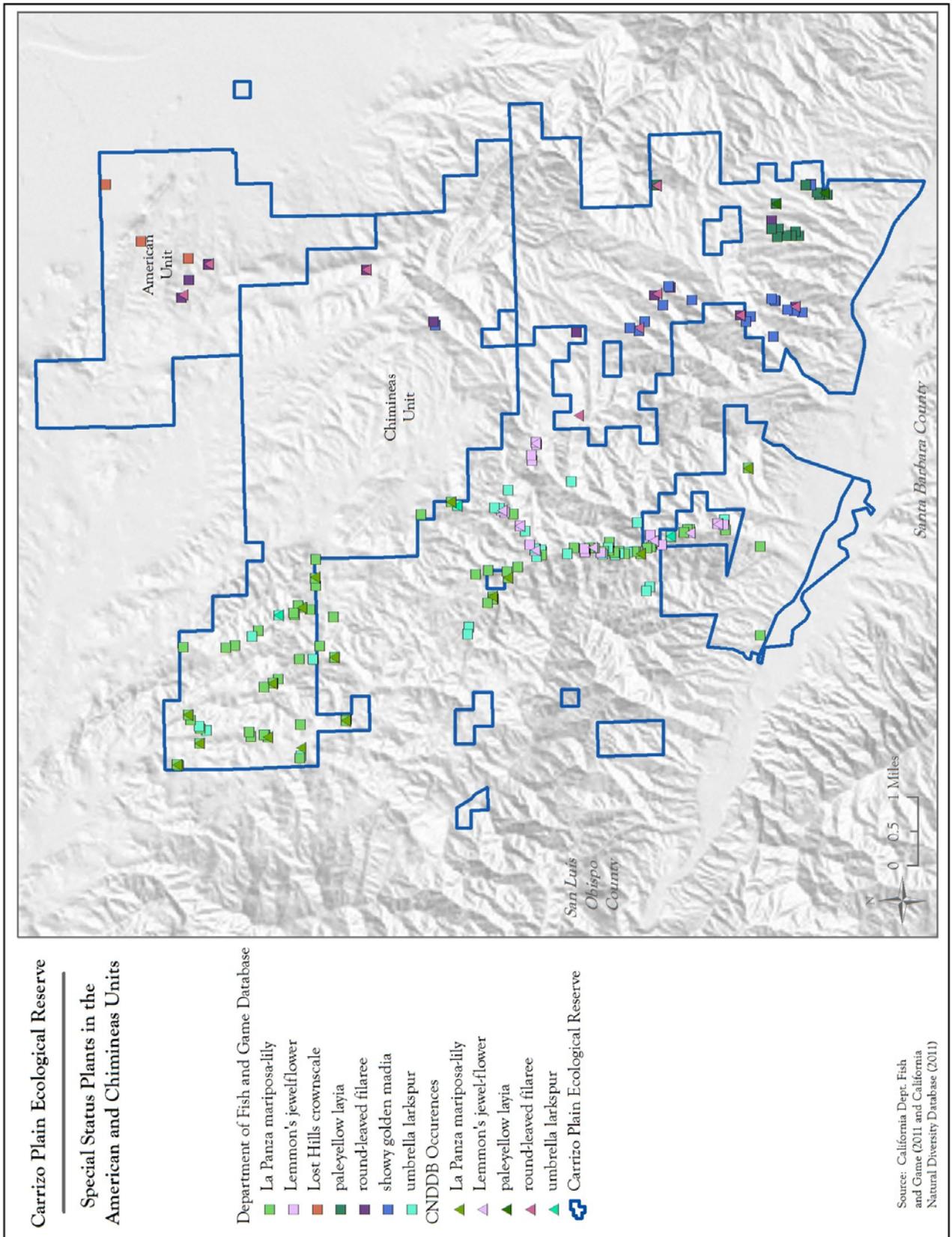
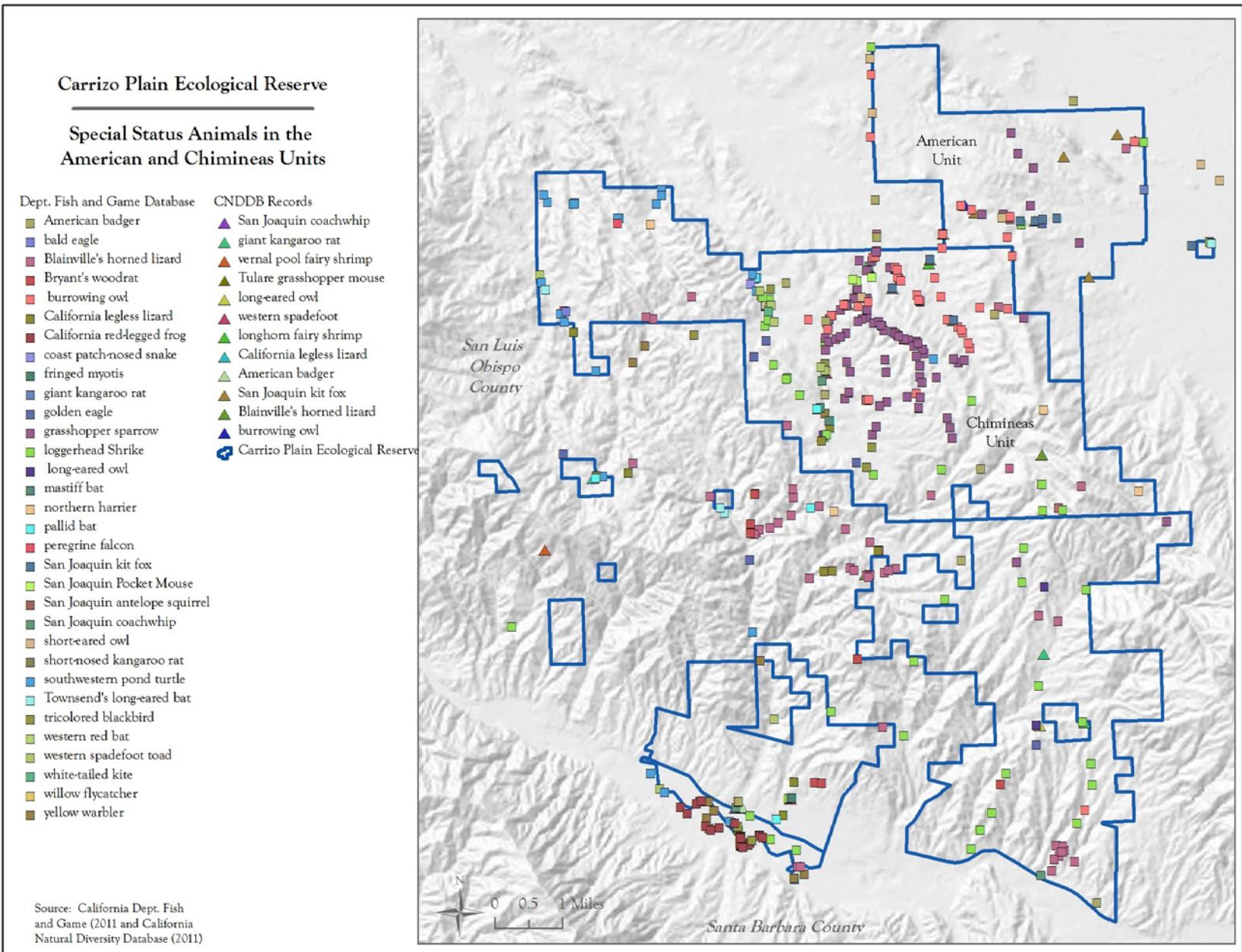


Figure 8 -- Special Status Wildlife Species Known To Occur On the American and Chimineas Units of the CPER



Livestock Grazing

Prior to acquisition by the Department in 2004, the Chimineas Unit was the privately held Chimineas Ranch. Livestock grazing was the primary land use on the Chimineas Ranch since at least the 1860s. Aspects of livestock grazing have created and maintained habitat for many plants and animals, including several of the special status species of the reserve. For this reason, livestock grazing is proposed in the draft management plan as an essential landscape-scale management tool to promote native species diversity and maintain populations of many rare species.

Exact figures on the number of cattle that grazed the Chimineas Ranch during the early years are unavailable. However, beginning in the 1940s and up until 1995, the base operation (the average number of livestock on the ranch) was reported to be between 1,000 and 1,200 cattle year round according to Mr. Ross Nyswonger, who was the Chimineas Ranch manager at the time (Ross Nyswonger pers com). Mr. Nyswonger further stated that the base herd was reduced to 800 animals from 1996-1998.

Estimates of the historic size of the base herd appear to be conservative since ranch records and newspaper articles from the 1940s through 1970 indicate that between 2,000 to “several thousand” head of cattle were kept on the ranch each year during this period. Additionally, the ranch was advertised as being able to carry 1,500 cows on an average year when it sold in 1998. Most recently, the current lessee, Dr. Neil Dow, had a herd of around 600 animals prior to acquisition of the Ranch by the Department (1999-2004) and between 460 and 590 (average 536) cattle have utilized the property under prior leases between the Department and Dr. Dow (2005-2011). The draft Lease Agreement allows a base herd of 350 head of livestock (assuming federal grazing leases remain in good standing) and a maximum of 450 head of livestock to be on the Premises at any given time, which is considerably less than the historic use.

The draft Lease Agreement establishes a maximum number of animal unit months (AUM) to be available on an annual basis on the Premises. The AUM standard is based on the carrying capacity of the Premises derived from the work of Mr. Keith Gunther, a certified range manager, who prepared high and low estimates for individual management units in 2006. Mr. Gunther has extensive experience evaluating rangelands in this area and his estimates were provided in a GIS platform. In deriving a high and low estimate of the carrying capacity for each management unit on the Premises, Mr. Gunther utilized a combination of factors consistent with accepted range management practices, including:

- distance to water
- wildlife needs
- management ability
- livestock class/type to be grazed
- condition/health of the range
- percentage of area within each range/veg type
- slope of unit
- estimates of historic livestock numbers on the Premises

The standard for the maximum number of AUMs (3,600) available on the Premises is the mid-point between the low and high estimates for those management units to be grazed as part of the lease. Mr. Gunther further concluded that his estimates of a high and low carrying capacity were 20-50% below what could be available from a strictly forage standpoint. He also indicated that the number of AUMs would need to be increased for those units to be managed for burrowing owl habitat. Limitations on the number of livestock and the maximum number of AUMs included in the draft Lease Agreement were chosen to best achieve the goals of avoiding impacts to sensitive plants and animals from grazing.

Standards for biomass and residual dry matter (RDM) set forth in the lease agreement were derived from the habitat types present in a particular management unit and the specific management objectives for those habitats as described in Table 2 of Exhibit B of the draft Lease Agreement. As required by Section 7

of the draft Lease Agreement and Figure 5, livestock will be used to maintain or improve habitat on a subset of management units. As discussed in Exhibit B, specific resources to be managed include short grasslands, upland game, and blue oak and juniper woodlands. In order to maintain a diversity of habitat structure within each vegetative community, only a portion of the lands within any community type will be grazed.

Conclusions

a), b) Less Than Significant With Mitigation Incorporated. Table 7 and Figure 7 and 8 indicate that many species require ongoing livestock grazing to maintain suitable habitat and there are a number of special status plant and animal species on the Premises that have the potential to be adversely impacted in the absence of specific management. Conversely, other special status species could be negatively impacted by livestock grazing, particularly if livestock were allowed into previously ungrazed areas.

Potential impacts to wildlife from grazing activities are typically indirect. In general, cattle impact wildlife indirectly by modifying the habitat on which wildlife depends for food, shelter, and cover. Throughout the Premises, cattle have historically modified habitat by disrupting soils and damaging vegetation at water sources and other livestock congregation areas. Soils have been impacted through hoof shearing and by soil compaction. Vegetation has been removed by trampling, overgrazing, and by literally being pulled out of the ground. These impacts are most profound near salt licks and watering sources, where cattle congregate. There is also soil compaction along cattle trails, however this compaction is very localized and limited and the impact is generally negligible.

In addition, grazing activities may adversely impact sensitive plant species when livestock directly feed on the plants or mechanically damage them with their hooves as they move through an area. Sensitive plants are most sensitive to these impacts when they are in flower or fruit (i.e. producing seeds).

Table 8 provides a summary of the special status plant and animal species located on the Premises, along with an analysis of the potential impacts associated with continued grazing activities. Table 8 indicates that potential adverse impacts to sensitive species associated with grazing could be significant unless additional mitigation measures are incorporated into the project description to reduce these impacts to a less than significant level. The species are mapped for the Premises on Figures 9 and 10.

Table 8 -- Special Status Species On the Premises

Common Name	Latin name full	Status ¹	Within the Lease Area?	Potential Impacts of Lease Agreement ²	Recommended Mitigation	Significance of Impact After Mitigation
Plants						
La Panza mariposa lily	<i>Calochortus simulans</i>	CNPS 1B.3	Yes	Not Significant – This species has been found in relatively high abundance throughout the historically/recently grazed units. Grazing will be timed to avoid flowering/fruitletting periods.	Grazing will be avoided during the flowering/fruitletting period for this species (April-May)	Not Significant
Round-leaf filaree	<i>California macrophylla</i>	CNPS 1B.1	Yes	Not Significant – Only 2 of the 19 populations of this species are within grazed management units. Grazing will be timed to avoid flowering/fruitletting periods. Elimination of grazing has the potential to impact this species through increased competition from nonnative grasses.	Grazing will be avoided during the flowering/fruitletting period for this species (March-May)	Not Significant
Showy madia	<i>Madia radiata</i>	CNPS 1B.1	Yes	Not Significant – Only one of the 18 populations recorded on the reserve is within a grazed management unit. Grazing will be timed to avoid flowering/fruitletting periods.	Grazing will be avoided during the flowering/fruitletting period for this species (March-May)	Not Significant
Kern mallow	<i>Eremalche parryi var. kernensis</i>	FE, CNPS 1B.1	Potential	Not significant – The lease area is currently outside the known range of Kern mallow. If the range of this plant is expanded over the Caliente Range, controlled grazing is expected to benefit this plant.	Grazing will be avoided during the flowering/fruitletting period for Kern mallow (March-May)	Not significant if present
Umbrella larkspur	<i>Delphinium umbraculorum</i>	CNPS 1B.3	Yes	Not significant – Populations of this species are in the woodland management areas with higher RDM standards.	Grazing will be avoided during the flowering/fruitletting period for this species (April-June)	Not Significant
Invertebrates						
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT	Potential	Not significant-Not detected during preliminary surveys and livestock are excluded from potential locations with appropriate habitat.	None	Not significant
Longhorn Fairy Shrimp	<i>Branchinecta longiantenna</i>	FE	Potential	Not significant-Not detected during	None	Not significant

Table 8 -- Special Status Species On the Premises

Common Name	Latin name full	Status ¹	Within the Lease Area?	Potential Impacts of Lease Agreement ²	Recommended Mitigation	Significance of Impact After Mitigation
				preliminary surveys and livestock are excluded from potential locations with appropriate habitat.		
Amphibians						
Western Spadefoot Toad	<i>Spea hammondi</i>	CSSC	Yes	Positive: Breeding ponds have been very productive in grazed pastures; cessation of grazing could reduce abundance if wetland vegetation becomes too dense.	None during the term of the lease. Breeding ponds may need to be grazed in the future	Not Significant
Reptiles						
California Legless Lizard	<i>Anniella pulchra pulchra</i>	CSSC	Yes	None--Populations of this species are healthy throughout the reserve including grazed management units. Reduction of livestock numbers as detailed in the proposed lease will benefit this species.	None	Not Significant
San Joaquin Coachwhip	<i>Masticophis flagellum ruddocki</i>	CSSC	Yes	None- Species occurs in both both grazed and ungrazed habitat. Continuation of grazing will result in no changes to habitat.	None	Not Significant
Blainville's Horned Lizard	<i>Phrynosoma blainfillii</i>	CSSC	Yes	Positive.; This species occupies both grazed and ungrazed areas. Reduction in grass density in grazed units may create open habitat required by this species.	None	Not Significant
Western Pond Turtle	<i>Emys marmorata pallida</i>	CSSC	Yes	Not significant--Historically, all of the ponds have been grazed and turtle populations have persisted in good numbers. Under the lease, livestock have been excluded from 3 of the 4 occupied turtle ponds. The pond with continued access for livestock had turtles that had significantly greater growth rates than other ponds.	None	Not Significant
Western Patch-nosed Snake	<i>Salvadora hexalepis virgulata</i>	CSSC	Yes	None--Only location for this species was in grazed unit. Species associated with chaparral communities which are not significantly altered by livestock	None	Not Significant

Table 8 -- Special Status Species On the Premises

Common Name	Latin name full	Status ¹	Within the Lease Area?	Potential Impacts of Lease Agreement ²	Recommended Mitigation	Significance of Impact After Mitigation
				use		
Birds						
Burrowing Owl	<i>Athene cunicularia</i>	CSSC	Yes	Positive-Very low vegetative structure required for nest site locations. Elimination of grazing would be expected to result in a reduction in breeding habitat for this species.	None	Not Significant
California Condor	<i>Gymnogyps californianus</i>	FE,SE	Potential	Positive-Potential food source from dead livestock, which the lease requires remain on property. Condors have only rarely been observed on the property.	None	Not Significant
Golden Eagle	<i>Aquila chrysaetos</i>	DFG-FP	Yes	None-Potentially positive impacts from dead livestock.	None	Not Significant
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	CSSC	Yes	None-All areas ungrazed in the past will remain ungrazed. Over 80% of the northern grasslands will not be grazed.	None	Not Significant
Loggerhead Shrike	<i>Lanius ludovicianus</i>	CSSC	Yes	None-There will not be any substantial changes to management practices where this species exists. Species exhibits no habitat preference related to grazing on CPER, but was largely associated with grazed lands on winter bird count surveys (Pandolfino pers comm).	None	Not Significant
Long-eared Owl	<i>Asio otus</i>	CSSC	Yes	None-Species found nesting in both grazed and ungrazed management units. No changes will occur in management where this species occurs	None	Not Significant
Northern Harrier	<i>Circus cyaneus</i>	CSSC	Yes	None-Existing ungrazed grasslands preferred as nesting habitat will remain ungrazed	None	Not Significant
Olive-sided Flycatcher	<i>Contopus borealis</i>	CSSC	Yes	None-No breeding on site; This species has only been observed for very short periods during migration.	None	Not Significant
Peregrine Falcon	<i>Falco peregrinus</i>	SE-PD	Yes	None-No breeding on site; This	None	Not Significant

Table 8 -- Special Status Species On the Premises

Common Name	Latin name full	Status ¹	Within the Lease Area?	Potential Impacts of Lease Agreement ²	Recommended Mitigation	Significance of Impact After Mitigation
				species has only been observed on a single occasion during migration. No documented breeding in vicinity.		
Short-eared Owl	<i>Asio flammeus</i>	CSSC	Yes	None-The tall grasslands preferred by this species will remain ungrazed.	None	Not Significant
Tricolored Blackbird	<i>Agelaius tricolor</i>	CSSC	Yes	Positive-Livestock have been excluded from potential breeding sites for this species, which forages in grasslands with grass <15 cm tall. Wetlands may need to be grazed occasionally as this species prefers cattails/tules that have not senesced.	None during the term of this lease. Wetland vegetation may need to be grazed/burned to maintain habitat for this species.	Not Significant
Vaux's Swift	<i>Chaetura vauxi</i>	CSSC	Yes	None-No breeding on site; This species has only been observed for very short periods during migration. Nests in coniferous forests.	None	Not Significant
Oregon Vesper Sparrow	<i>Poocetes gramineus affinis</i>	CSSC	Yes	None-This species has been observed wintering in both grazed and ungrazed grasslands. There will not be any changes to the amount of acreage on the specific management units to be grazed under the proposed lease compared to prior years.	None	Not Significant
White-tailed Kite	<i>Elanus leucurus</i>	DFG-FP	Yes	None- The marshes and wetlands will not be grazed and all of the previously ungrazed grasslands will remain ungrazed as part of the proposed lease.	None	Not Significant
Willow Flycatcher	<i>Empidonax traillii</i>	SE	Yes	None-No breeding on site; This species has only been observed for very short periods during fall migration. No breeding in San Luis Obispo county.	None	Not Significant
Yellow Warbler	<i>Dendroica petechia</i>	CSSC	Yes	Positive-As part of this lease riparian habitats have been excluded from livestock.	None	Not Significant
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	CSSC	Yes	None-No breeding on site; This species has only been observed for	None	Not Significant

Table 8 -- Special Status Species On the Premises

Common Name	Latin name full	Status ¹	Within the Lease Area?	Potential Impacts of Lease Agreement ²	Recommended Mitigation	Significance of Impact After Mitigation
				very short periods during migration.		
Mammals						
American Badger	<i>Taxidea taxus</i>	CSSC	Yes	None-This species occurs in both grazed and ungrazed areas, and the respective management units will remain unchanged from prior leases. 78% of observations have been on grazed lands.	None	Not Significant
Bryant's woodrat	<i>Neotoma bryantii</i>	SSC	Yes	None-Almost all of the habitat (coastal sage scrub) for this species will not be grazed as part of this lease.	None	Not Significant
Fringed Myotis	<i>Myotis thysanodes</i>	WBWG-H	Yes	None-This species is associated with woodlands and forests. Roost sites (cliffs, rock faces, large trees) will not be impacted by grazing operations. Woodland management will remain unchanged.	None	Not Significant
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE,ST	Yes	Positive-This species prefers short grasslands. Given the absence of giant kangaroo rats, livestock grazing will improve habitat in the leased areas where vegetative production is higher than on the Carrizo Plain. Elimination of grazing would be expected to result in habitat degradation for this species as grass height increases.	None	Not Significant
Pallid Bat	<i>Anrtozous pallidus</i>	CSSC	Yes	None-This species is most commonly associated with oak woodlands. There will be not changes in the grazing practices in oak woodlands.	None	Not Significant
Ringtail	<i>Bassariscus astutus</i>	DFG-FP	Expected	Not detected on site. Appropriate habitat in areas either protected (riparian) or likely to be avoided by livestock (rocks, dense shrubs)	None	Not Significant
San Joaquin Pocket Mouse	<i>Perognathus inornatus</i>	CSSC	Yes	None-This species was captured equally in both grazed and ungrazed grasslands. The animals	None	Not Significant

Table 8 -- Special Status Species On the Premises

Common Name	Latin name full	Status ¹	Within the Lease Area?	Potential Impacts of Lease Agreement ²	Recommended Mitigation	Significance of Impact After Mitigation
				present on site are considered McKittrick pocket mouse, which is not listed as a species of special concern		
Townsend's Big-eared Bat	<i>Plecotus townsendii</i>	CSSC	Yes	None-Forages in the air and roosts in mines/buildings Townsend's big-eared bats are typically found in oak woodlands. No changes in oak woodland management.	None	Not Significant
Western Mastiff Bat	<i>Eumops perotis californicus</i>	CSSC	Yes	None-Roosts on tall cliffs and forages over large distances at high altitudes. Implementation of the management practices described in the proposed grazing lease because grazing practices will remain largely unchanged compared to prior years.	None	Not Significant
Western Red Bat	<i>Lasiurus blossevillii</i>	CSSC	Yes	Positive-Riparian habitats which are preferred by this species have largely been excluded from grazing and newly fenced areas are being replanted with cottonwoods	None	Not Significant

Notes:

1. Definitions

Federal Status Designations:

FE= Federally Endangered. Species in danger of extinction throughout all or significant portion of its range.

FT = Federally Threatened. Species likely to become endangered within foreseeable future throughout all or a significant portion of its range.

State Status Designations

SE = State endangered. Species who's continued existence in California is jeopardized

ST = State threatened. Species, although not presently threatened with extinction, may become endangered in the foreseeable future.

CSSC = California species of special concern. Animal species with California breeding populations that may face extinction in the near future.

DFG-FP = Fully protected by the State of California under Sections 3511 and 4700 of the Fish and Game Code

WBMG-H: Species ranked as 'high' on the Regional Priority Matrix.

2. See text.

Figure 9 -- Special Status Plant Species Known To Occur On The Premises

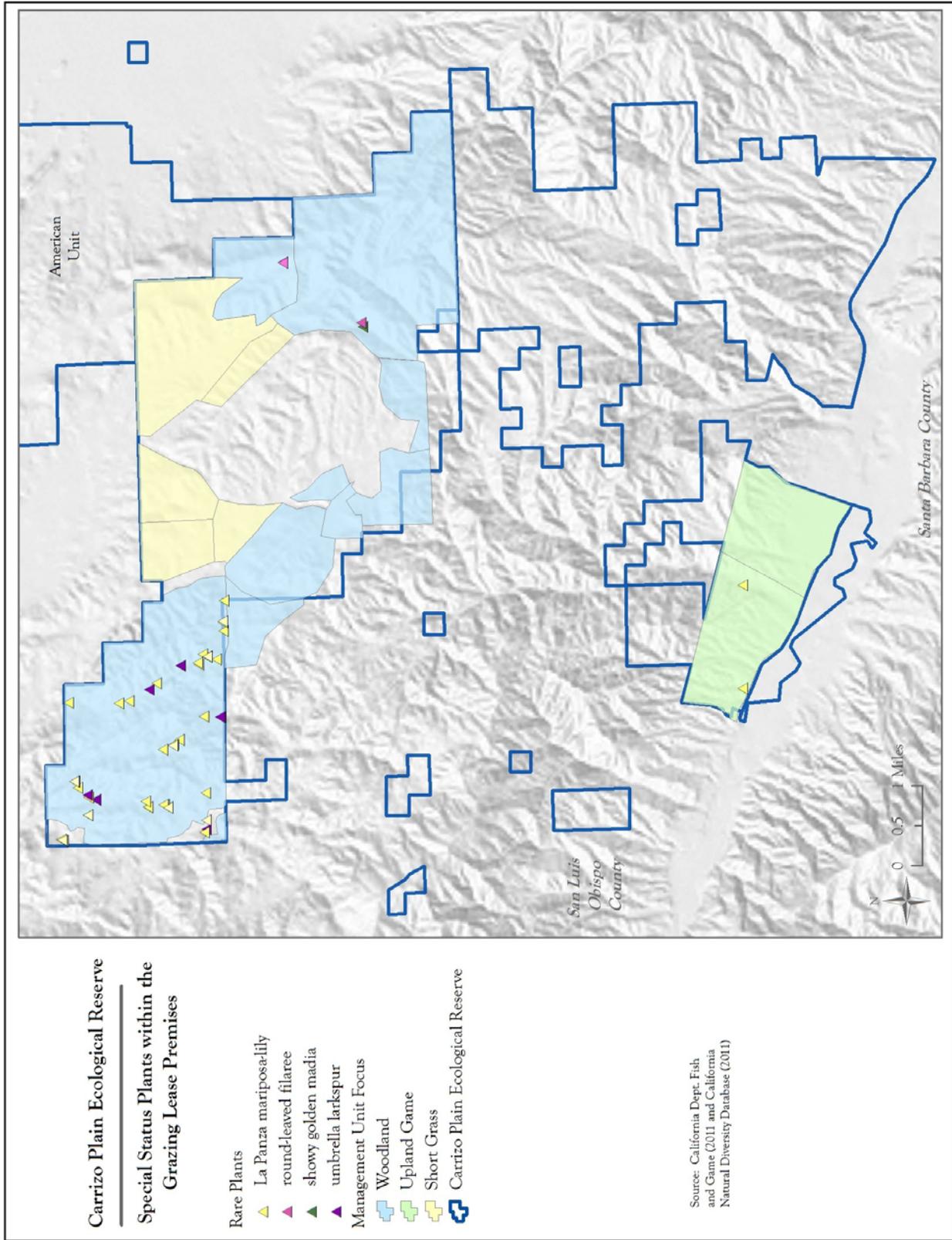
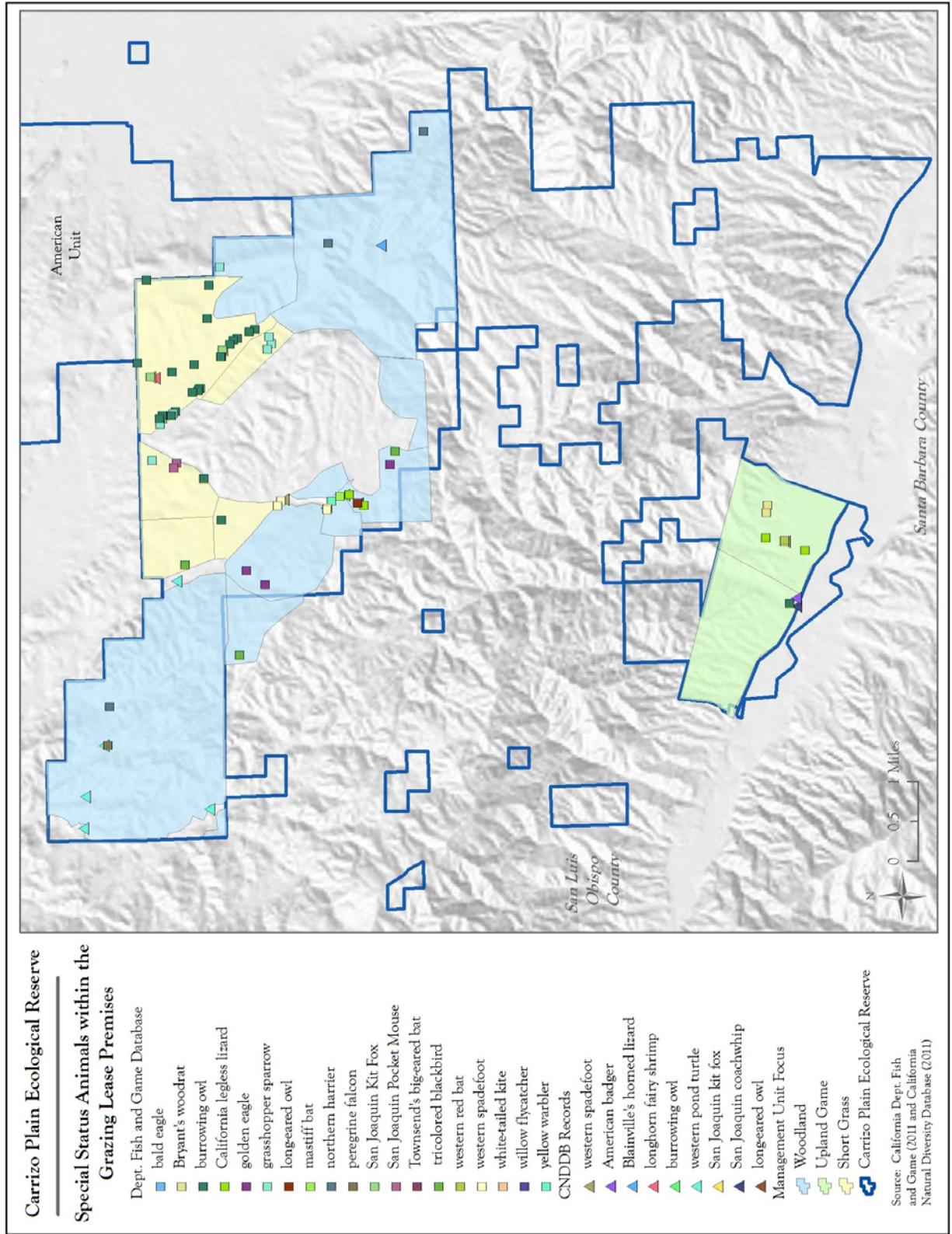


Figure 10 -- Special Status Animal Species Known To Occur On the Premises



Discussion of Potential Impacts to Special Status Species

California Jewelflower – (*Caulanthus californicus*) – This species occurs on the Carrizo Plain and portions of the Cuyama Valley. However, it has not been observed on any of the CPER lands, including lands proposed to be grazed as part of the lease. Therefore, this species will not be impacted by the proposed project.

Lemmon’s Jewelflower – (*Caulanthus lemmonii*) – This species has been recorded on adjacent BLM lands and portions of CPER lands which are not part of the “premises” as described in the lease. It has not been recorded on any of the lands to be utilized by livestock as part of the proposed lease. Therefore, there will not be any impacts to this species from the proposed project.

La Panza Mariposa Lily (*Calochortus simulans*) - This species occurs in relatively high abundance throughout the units that have been historically grazed, including units where grazing is proposed in the lease. Department botanists have recorded 76 locations for La Panza mariposa lily on or adjacent to the reserve. Just under one-third of these locations (23) are on the areas proposed to be grazed as part of the lease and with one exception, the grazing practices will be identical to those of the past 13 years. The only exception will be that some of the mariposa lilies in the riparian management units have been fenced to exclude livestock. To avoid direct impacts of herbivory on the species, grazing in occupied management units will be avoided during the species’ flowering and fruiting periods (approximately April-May). Given the relative abundance of this lily in the grazed units, the absence of change in the proposed management practices for these areas, and the avoidance of grazing these areas during the blooming period, impacts from proceeding with the actions in the proposed grazing lease will not result in significant impacts to La Panza mariposa lilies.

Round-leaf Filaree (*California macrophylla*) - Two of the 19 populations of this species are within grazed management units. The rarity of the species, which was thought to be more widespread historically in California, may be largely a result of habitat loss due to competitive exclusion by exotic species (Gillespie 2003), which have been shown to reduce seedling emergence, survival, and fecundity (Gillespie and Allen 2004). To avoid direct impacts of herbivory on the species, grazing in occupied management units will be avoided during the species’ flowering and fruiting periods (approximately March-May). Therefore, the net effect of grazing is neutral or positive.

Showy Madia (*Madia radiata*) - Only one of the 18 populations recorded on the reserve is within a grazed management unit. To avoid direct impacts of herbivory on the species, grazing in occupied management units will occur outside the species’ flowering and fruiting periods (approximately March-May). Therefore, the net effect of grazing is neutral or positive.

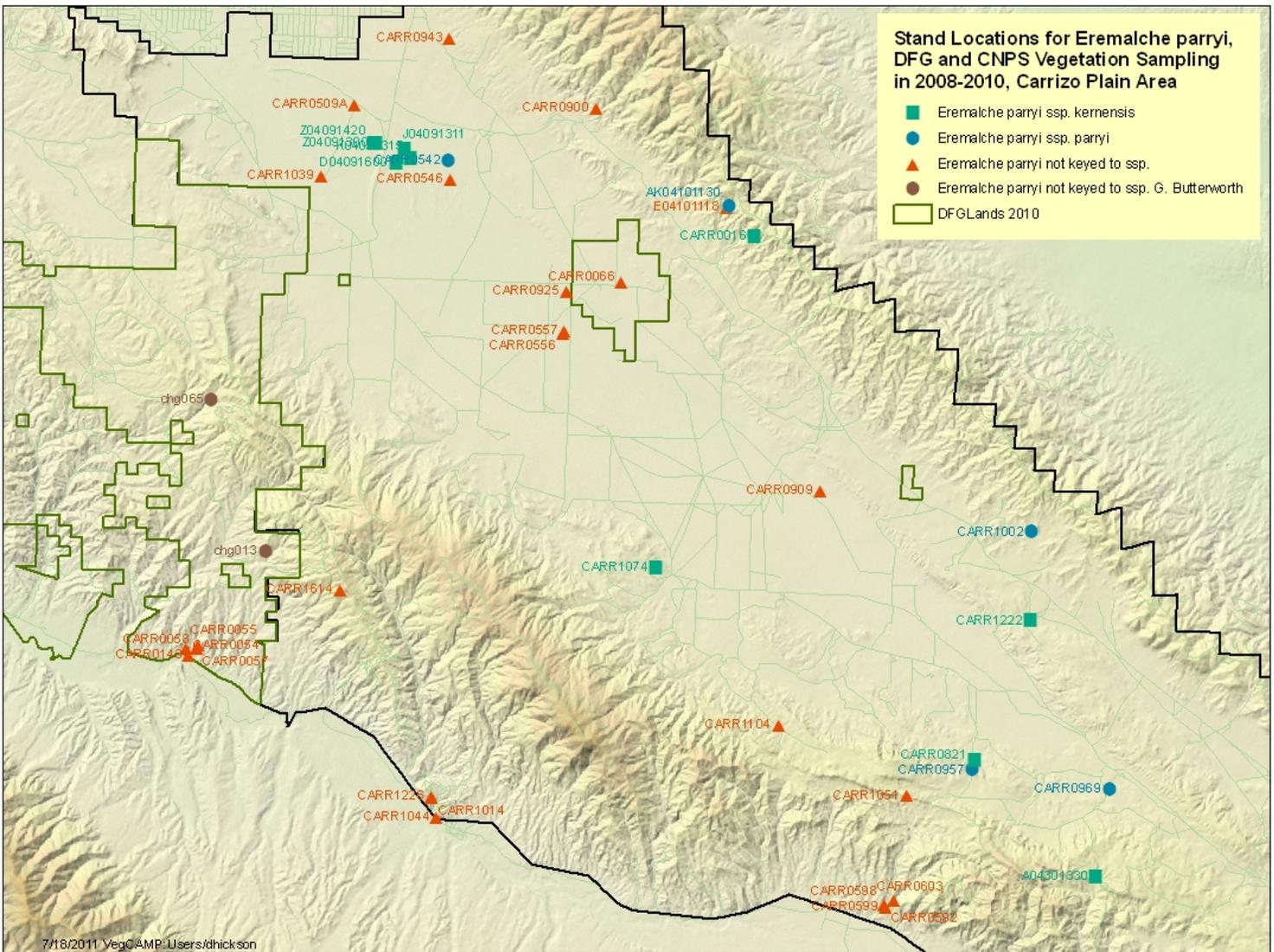
Umbrella Larkspur (*Delphinium umbraculorum*) - Umbrella larkspur is a perennial herb endemic to central coastal California where it grows on slopes in oak forests within the outer south coast and western transverse range mountains, within Monterey, Santa Barbara, San Luis Obispo, and Ventura counties (CNPS 2010, eFloras 2008, and Consortium of California Herbaria 2010). This species blooms April-June (CNPS 2010). As with all larkspur, umbrella larkspur is toxic to livestock.

In the immediate vicinity of the reserve, Department botanists have documented 34 locations with umbrella larkspur. Of this number, only 5 records are located in pastures proposed to be grazed under the lease. Management practices will not change in these management units as part of the proposed lease. To avoid direct impacts of herbivory on the species, grazing in occupied management units will be avoided during the species’ flowering and fruiting periods. Therefore, the net effect of grazing is neutral or positive.

Kern Mallow (*Eremalche parryi* var. *kernensis*) - Until very recently, Kern mallow was only known east of the Temblor Range in the San Joaquin Valley. Beginning in 2010, the range of Kern mallow was extended west of the Temblors as plants were found on the Carrizo Plain (DeVries 2011). Parry's mallow (*Eremalche parryi*) has been identified in the lease area, which is located west of the Caliente Range (Figure 11). However, these plants were not identified to subspecies so the presence of Kern mallow is yet to be determined.

Kern mallow is threatened by both uncontrolled grazing and by competition with nonnative plants in the absence of grazing (USFWS 2010). If kern mallow exists on the premises, controlled grazing as described in the proposed grazing lease will positively affect this plant. However, it should be noted that only one of the potential populations was observed in an area proposed for grazing under the lease (Figure 11). Livestock will not have access to this area during the fruiting or flowering period for Kern/Parry's mallow as this population is already in a management unit where grazing will be avoided March – May.

Figure 11. Locations of Parry's mallow and Kern mallow in the vicinity of the project area



Vernal Pool Fairy Shrimp (*Branchinecta lynchi*) – In the vicinity of the CPER, vernal pool fairy shrimp have been recorded from the vernal pool complexes north of Soda Lake on the Carrizo Plain and a vernal pool located on the adjacent Los Padres National Forest (Figure 8). With two exceptions, vernal pool habitat on the Chimineas Unit is lacking due to the permanent nature of the water sources or the fact that the ponds are in active stream courses. One of the sites with potential habitat for vernal pool fairy shrimp is located within a riparian management unit which is excluded from grazing under the proposed lease. The second potential site has been fenced to preclude access by livestock. This species was not found at any location on the Chimineas Unit during vernal pool surveys and the only potential breeding pools for this species are fenced and not available for grazing. Therefore, this species will not be impacted by adoption of the proposed grazing lease.

Longhorn Fairy Shrimp (*Branchinecta longiantenna*) – Longhorn fairy shrimp have been found along the margins of Soda Lake, including the northeastern corner of the CPER on the American Unit (Figure 8). They have also been found on the south end of the Carrizo Plain but the species is not known west of the Caliente Range (USFWS 2007). With two exceptions, vernal pool habitat on the Chimineas Unit is lacking due to the permanent nature of the water sources or the fact that the ponds are in active stream courses. One of the sites with potential habitat for vernal pool fairy shrimp is located within a riparian pasture which is excluded from grazing under the proposed lease. The second potential site has been fenced to preclude access by livestock. This species was not found at any location on the Chimineas Unit during vernal pool surveys and the only potential breeding pools for this species are fenced and not available for grazing. Therefore, this species will not be impacted by adoption of the proposed grazing lease.

Western Spadefoot (*Spea hammondi*) - This species, which is adapted to vernal pools and ephemeral ponds, has been observed on sites that have been recently grazed by livestock. Western spadefoot toads prefer areas of open vegetation and short grasses, where the soil is sandy or gravelly (Jennings and Hayes 1994, USFWS 2005). Thick vegetation, which can make a particular body of water inaccessible for spadefoot toad, often develops in the absence of grazing or other disturbance events. In some areas, tule elk have maintained open structure around the ponds that they utilize. However, based upon five years of telemetry data, many of the occupied spadefoot breeding pools were not utilized by elk (California Dept. of Fish and Game unpublished data).

As part of the proposed grazing lease, the riparian management units will not be available for livestock use in order to protect other wetland/riparian resources. While this will eliminate any threats from livestock directly killing spadefoot toads through trampling (Jennings and Hayes 1994), the habitat value for spadefoot populations at these locations may be reduced over time as wetland vegetation becomes denser and these vernal pools/ponds dry up sooner due to increased evapotranspiration (Marty 2004).

Under the proposed 3-year grazing lease, degradation of spadefoot habitat will be minimal and insignificant. However, longer term exclusion of livestock from spadefoot breeding ponds has the potential to result in the loss of these ponds for use by spadefoot. As part of the RAP program, the Department will continue to monitor spadefoot populations and the associated habitat. In the event that habitat quality and spadefoot numbers decrease, periodic, short-term livestock use may be necessary to optimize habitat for this species.

California Legless Lizard (*Anniella pulchra*) – This fossorial species has been found throughout the CPER in both grazed and ungrazed management units where the ground was not tilled. On CPER, this species is most commonly associated with oak woodlands but it can also be found in several other habitats including juniper woodland, coastal scrub, and chaparral (Sweet pers. com). Overall numbers and locations occupied by this species have remained stable over the past 10 years (Stafford pers. com.)

and numbers appear to have increased since the Department acquired the land (Sweet pers. com.).

This species may be impacted by livestock use which restricts the food base, reduces leaf litter, or otherwise compacts the substrate (Jennings and Hayes 1994). Legless lizards inhabiting areas where livestock congregate under oaks are especially vulnerable.

Given that healthy populations of this species are being observed in areas that were heavily grazed prior to the Department acquiring the property, that overall population numbers have remained stable or increased, and that the proposed lease will reduce livestock numbers from both a recent and historical perspective, potential impacts to this species will not be significant.

San Joaquin Coachwhip (*Masticophis flagellum ruddocki*) – This diurnal snake has been observed in the grasslands and desert scrub communities of the CPER in both grazed and ungrazed management units. Often, it has been recorded along an ecotone between these units. No impacts are expected from the proposed project because sufficient suitable habitat will remain available to this species on all of the previously ungrazed units which consists of approximately 80 percent of the northern grasslands.

Blainville's Horned Lizard (*Phrynosoma blainvillii*) - This species occupies both grazed and ungrazed areas on the CPER. Open habitats created by fire, floods, grazing, and roads are needed as basking sites for this species (Jenning and Hayes 1994). With the exception of riparian areas, the areas to be grazed under the proposed lease are identical to those grazed for at least the past 10 years and horned lizard populations appear to be stable. Reduction in grass density in grazed units will continue to create open habitat required by this species. Due to the lack of changes in the areas proposed for grazing, horned lizards are not expected to be impacted by the actions associated with the proposed grazing lease.

Western Pond Turtle (*Emys marmorata pallida*) –Western pond turtles are located within the more permanent ponds and pools of the Barrett, San Juan, and Cuyama River drainages of the reserve. In the lease area, 4 ponds within the San Juan and Barrett Creek drainages have significant turtle populations. Historically, all of the ponds were grazed and turtle populations have remained stable. Under the lease, livestock will be excluded from 3 of the 4 occupied turtle ponds as well as the associated creeks to protect riparian habitat. This is expected to result in an increased duration of water retention in the fenced ponds since livestock have historically watered at these locations for extended periods during summer, thereby reducing water levels at a critical time for turtles. The only pond with continued access for livestock had turtles with significantly greater growth rates compared to the other ponds. Of the 96 turtles captured at this pond in 2011, 29 were hatchlings (30%), 28 were juveniles (29%), and 39 were adults (41%). More hatchlings were captured at this pond than any other pond (Germano 2011), indicating that this population remained healthy while being utilized by livestock. This pond is deeper than others on CPER and typically does not dry up, even with livestock use. As part of the RAP program and ongoing research by researchers, pond turtle populations will continue to be monitored. Given that pond turtle populations in the pond where grazing has historically occurred have remained stable and healthy, potential impacts from the proposed grazing lease will not be significant.

Coast Patch-nosed Snake (*Salvadora hexalepis virgulata*) - This species, which is associated with chaparral and coastal sage communities, has only been observed once on the reserve. These communities are not expected to be altered by livestock use. However, one of the threats to this snake is the conversion of shrub communities through repeated wildfire (Jennings and Hayes 1994). Reduction of fine fuels through grazing may reduce this risk.

Burrowing Owl (*Athene cunicularia*) – Burrowing owls have been observed throughout the northern grasslands of the CPER, primarily in or adjacent to the grazed management units. It is well documented in the scientific literature that this owl needs the short grass structure associated with grazing, especially

during the nesting season (Salt and Wilk 1958; Bent 1961; Grant 1963, 1965; James and Seabloom 1968; Stewart 1975; Wedgwood 1976; Haug 1985; MacCracken et al. 1985; Haug and Oliphant 1990; Ronan 2002). Burrowing owl nest sites on the adjacent Carrizo Plain were surrounded by significantly lower vegetation height (0.4 cm) compared to unused burrow sites (Ronan 2002). All of these findings are consistent with those found on CPER, where all of the nesting sites for burrowing owls were either located on heavily grazed pastures (83%) or on sparsely vegetated south facing slopes (Figure 12). Free roaming elk herds, which are present in the lease area, have not and will not be able to significantly reduce grass height since they would be expected to leave the reserve to find better forage conditions before reducing grass height to prescribed levels (R. Stafford, pers. obs.).

In addition to low vegetative structure, burrowing owls also benefit from livestock by collecting cattle dung and bringing it to their burrows (Salt and Wilk 1958, Martin 1973, Green and Anthony 1989, Dechant et al 1999). The presence of cattle dung, which is thought to be utilized by owls to mask their scent (Green and Anthony 1997), is considered important enough that it was recommended that it be provided in the event none was present (Green and Anthony 1997, Dechant et al 1999). Managing the previously cultivated grassland as detailed in the proposed lease will be a positive impact for burrowing owls.

California Condor (*Gymnogyps californianus*)-A single condor observation has been recorded on the CPER in a non-lease area. Telemetry data from USFWS also indicate that condors occasionally fly over the reserve. As in prior leases, the lease requires that dead livestock remain on the property to provide a potential food source for condors foraging in the area. The lease also prohibits the use of lead ammunition in the event a cow needs to be euthanized. Enactment of the provisions in the proposed lease will not result in any impacts to condors.

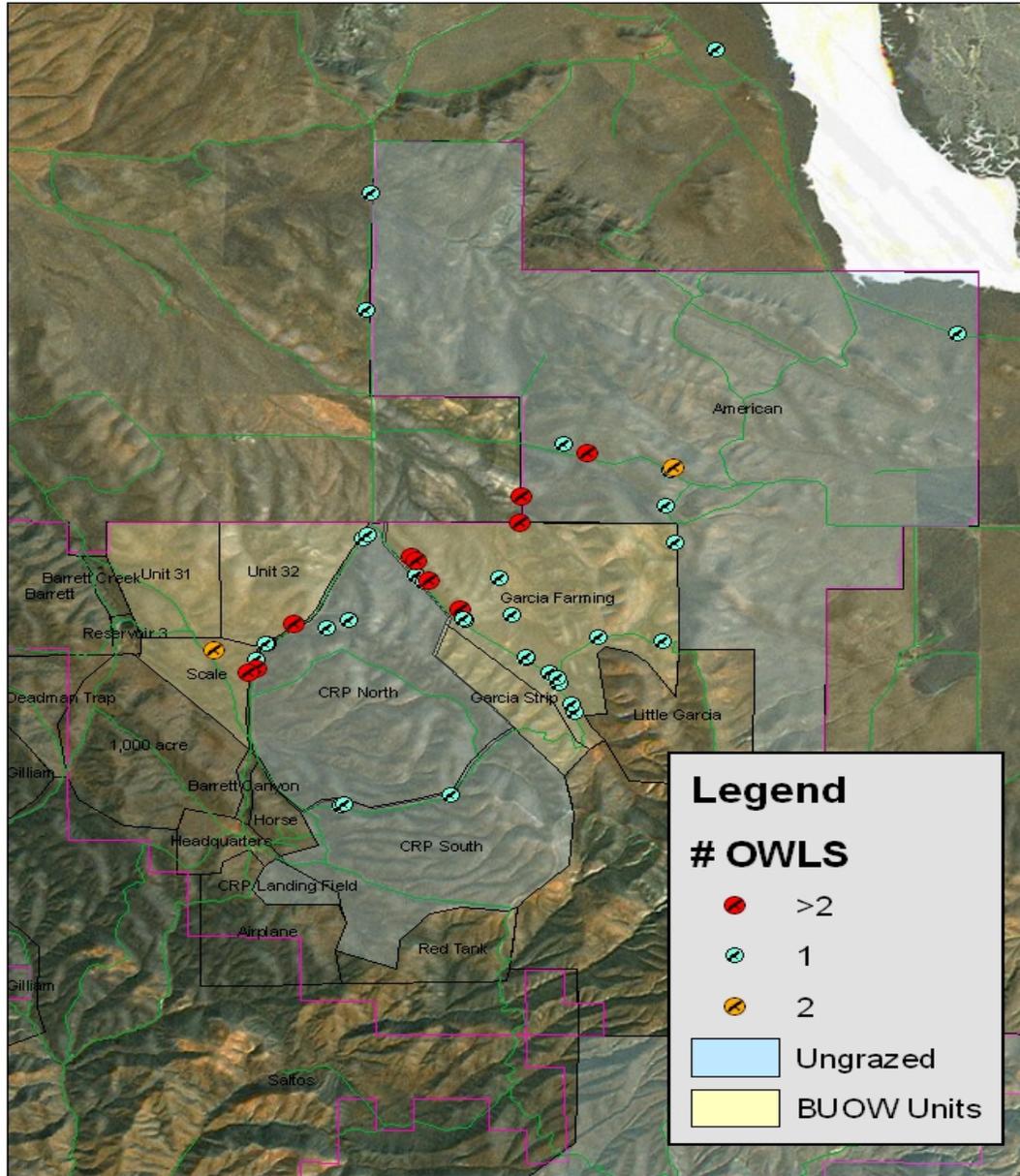
Golden Eagle (*Aquila chrysaetos*)-Several golden eagles are known to nest on the reserve. These raptors feed on ground squirrels and carrion. The grazing operation as detailed in the proposed lease will continue to provide potential food sources for golden eagles and therefore no impacts will result from adopting the proposed lease.

Grasshopper Sparrow (*Ammodramus savannarum*) - This species has shown a strong preference for the ungrazed grasslands on the reserve. However, almost 80 percent of the northern grasslands (over 9,000 acres) will remain ungrazed to protect nesting habitat for this species and all of the previously ungrazed units will continue to be ungrazed. In addition, as shown in Figure 8, this species occupies the ungrazed grasslands of the reserve and it has not been found nesting in the grazed management units. Since there is little chance that this bird will be found nesting in the grazed pastures, livestock will not be expected to have any impacts on nest sites. Given that there will not be any significant loss in nesting habitat for this species or direct impacts to nests, impacts to grasshopper sparrows as a result of enacting the provisions of the proposed lease are considered less than significant.

Loggerhead Shrike (*Lanius ludovicianus*) – On the CPER, loggerhead shrikes are relatively abundant in both grazed and ungrazed units as long as there is some vertical structure present (e.g. shrubs, fences, or trees). However, a recent study of wintering raptors found that shrikes were observed on grazed lands at significantly higher rates than ungrazed lands (E. Pandolfino, pers comm.). There will be no impacts to this species since there will not be any changes in the amount of loggerhead shrike habitat to be grazed/ungrazed as part of the proposed lease.

Long-eared Owl (*Asio otus*)- Long-eared owls have been observed nesting and roosting in both grazed and ungrazed woodland units. Their populations appear to be stable. There will not be any changes from the current management of these units under the proposed lease. Therefore, there will not be any impacts to long-eared owls from adopting the proposed lease.

Figure 12. Burrowing owl observations and nest locations. Locations with 2 owls were considered to be potential nest sites while locations with more than 2 owls were confirmed as nest sites.



Northern Harrier (*Circus cyaneus*)-Northern harriers have been observed in both the grazed and ungrazed management units. This species nests on the ground in tall grass (Shuford and Gilardi 2008) and preferentially uses tall grass and marsh habitats (Pandolfino et al in prep). Nests of this species can be directly impacted by grazing (Shuford and Gilardi 2008). While nesting has not been directly detected, one pair has been frequently observed in the ungrazed grasslands during the nesting season (R. Stafford, pers obs). In accordance with the draft Lease Agreement, almost 80 percent of the northern grasslands (over 9,000 acres) will remain ungrazed to protect nesting habitat for this species and all of the previously ungrazed units will continue to be ungrazed. In addition, almost all of the wetlands and riparian areas have been fenced to exclude livestock. Given that there will no loss of nesting habitat for this species and that the harriers will not nest in the areas with low grass structure, there will be no impacts to northern harriers as a result of enacting the provisions of the proposed lease. Instead, there may be positive effects for this species as removal of livestock from the marshes and riparian areas may result in increased nesting habitat.

Olive-sided Flycatcher (*Contopus borealis*) – This species has only been observed during spring migration and appropriate habitat for breeding (coniferous forests) does not occur in the lease area (Verner 1980). No impacts are expected from livestock operations.

Peregrine Falcon (*Falco peregrinus*) - This species has only been observed once during spring migration and is not known to nest anywhere near the CPER. No impacts are expected from livestock operations.

Short-eared Owl (*Asio flammeus*) – Short-eared owls, which are associated with tall grasslands and marshes (Shuford and Gardali 2008), have been observed in the ungrazed grasslands of the reserve. Under the terms of the lease, all of existing tall grasslands will continue to be ungrazed and the short grass management units will not provide nesting habitat for this species. Therefore, there will be no loss of habitat values for this species and direct impacts to nesting short-eared owls will be avoided since owls will not be nesting in areas available for livestock grazing. Removal of livestock from the marshes and riparian areas (as per the lease) may result in increased nesting habitat for short-eared owls.

Tricolored Blackbird (*Agelaius tricolor*) – This colonial nester has been observed foraging in grazed grasslands on the CPER. This is consistent with tricolored blackbird use in other areas where foraging habitat is considered optimal when vegetation is less than 15cm (Schuford and Gardali 2008). The nearest breeding colonies are located on private property north of the reserve and nesting periodically occurs along the Cuyama River. This species commonly nests in cattails adjacent to open water (Beedy and Hamilton 1997) and these conditions have the potential to develop under the terms of the proposed grazing lease, which eliminates most livestock use in riparian and marsh units. Ultimately, the activities detailed in the proposed grazing lease will have a positive effect on this species as potential nesting sites are protected and the quality of foraging habitat is optimized through grazing. In the future, wetlands may need to be burned or grazed occasionally as this species prefers cattails/tules that have not senesced (Hamilton 2004, Tricolored Black Bird Working Group 2009).

Vaux's Swift (*Chaetura vauxi*) – Vaux's swifts have been observed flying over portions of the reserve during spring migration. They nest in coniferous forests (Shuford and Gardali 2008) so nesting habitat is not present anywhere near the reserve. There will not be any impacts to Vaux's swifts as a result of the activities in the proposed lease.

Oregon Vesper Sparrow (*Pooecetes gramineus affinis*) - This species has been observed wintering at low densities in both grazed and ungrazed grasslands. This species breeds in Oregon and winters in central/southern California (Shuford and Gardali 2008). Wintering habitat has been characterized as flat open ground with low annual vegetation (Grinnell and Miller 1944). There will not be any changes to the

amount of acreage or the specific management units to be grazed under the proposed lease compared to prior years. Therefore, there will not be any impacts to Oregon vesper sparrow from the management actions in the proposed grazing lease.

White-tailed Kite (*Elanus leucurus*) – White-tailed kites have been observed on a few occasions around Barrett Creek, which under the terms of the draft Lease Agreement will remain ungrazed. Nesting has not been recorded on site. This species prefers ungrazed grasslands and marsh habitats (Pandolfino et al. *in prep*). The marshes and wetlands will not be grazed and all of the previously ungrazed grasslands will remain ungrazed as part of the proposed lease. Therefore, there will be no loss of habitat for white-tailed kites and this species will not be impacted.

Willow Flycatcher (*Empidonax trailii*) – A single willow flycatcher was observed on the reserve during fall migration in 2006. This species has not been detected on site at any other time and is not known to breed in San Luis Obispo County (Edell 2002). Almost all of the riparian areas have been fenced to exclude livestock. This may result in long-term benefits for this species as more habitat will be available during migration events. This species will not be impacted by implementation of the actions in the proposed grazing lease.

Least Bell's Vireo (*Vireo bellii pusillus*) – Least Bell's vireo is a summer resident and nester in the riparian areas of southern California. The species has not been recorded nesting in San Luis Obispo County (Edell 2002) and the nearest nesting locations are located over 40 miles south of the project area in Santa Barbara County (CDFG 2011a). This species has not been detected during the past 7 years of bird surveys conducted on the reserve. Given the absence of this species on the reserve, there will not be any impacts to least Bell's vireo from adopting the proposed grazing lease. If least Bell's vireos ever expanded into this area, excluding livestock from the riparian zones as detailed in the proposed lease would positively affect this species.

Yellow Warbler (*Dendroica petechia*) – This species has been observed on numerous occasions in the oak woodlands and riparian habitats on the CPER. Yellow warblers breed in riparian habitats along streams and wet meadows (Shuford and Gardali 2008) and they are expected to breed within the lease area. Almost all of the riparian areas have been fenced to exclude livestock. This will provide benefits for yellow warblers as riparian habitat becomes more established and livestock are unable to access nest locations. Enactment of the grazing lease will result in positive impacts to yellow warblers.

Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*) – A single yellow-headed blackbird was observed during spring migration in 2007. This species, which inhabits wetland marshes with tall emergent vegetation (Shuford and Gardali 2008), has not been recorded breeding in San Luis Obispo County (Edell 2002). Yellow-headed blackbird habitat may be enhanced through the elimination of grazing in the riparian management units as part of the lease. However, the benefits of these management activities on this species may be limited given that the species is a rare migrant in the county (Edell 2002). Adoption of the proposed lease is not expected to result in any impacts, positive or negative, on this species.

American Badger (*Taxidea taxus*) – Badgers have been observed in both the grazed and ungrazed grasslands of the reserve. However, the majority of detections (78%) have been in grazed pastures. As there will be no changes in the management units to be grazed/ungrazed as part of the proposed lease, badgers will not be impacted.

San Diego Desert Woodrat (*Neotoma lepida intermedia*) - This species has been trapped at several locations within the coastal scrub communities on the southern portion of the reserve and was often trapped near yucca. Almost all of this community type will remain in ungrazed management units and

management practices will remain unchanged. No impacts will occur as a result of implementing the actions of the proposed grazing lease. This species was recently reclassified as Bryant's woodrat (*Neotoma bryantii*) by Patton et al (2008). There is some question as to whether this species remains a species of special concern. It was not listed as a species of special concern in Williams (1986) or in the 1998 update. However, it continues to be listed as a species of special concern on the "special animals" list.

Fringed Myotis (*Myotis thysanodes*) – Fringed myotis has been detected with remote sensing equipment at 3 open water locations on the CPER. Although ranging throughout most of California, it is thought to be most common in drier woodlands (Weller 2005). This species roosts in crevices in buildings, underground mines, rocks, cliff faces, bridges and old trees and snags (Weller 2005). It feeds on insects and moths but is also thought to glean prey from trees and shrubs (Weller 2005). With a few small exceptions, there will not be any changes in the grazing practices in woodland communities. The only changes will occur in areas where oak woodlands are included within the fenced riparian pastures, which will not be grazed. Given the lack of changes in grazing practices and the fact that roosting sites will not be affected by livestock operations, fringed myotis will not be impacted through implementation of the proposed grazing lease.

San Joaquin kit fox (*Vulpes macrotis mutica*) – Kit foxes have been observed primarily in the short grasslands of the CPER. On large expanses of the Carrizo Plain, this short structure can be achieved by giant kangaroo rats (*Dipodomys ingens*), which clip annual vegetation throughout the year (USFWS 1998, Germano et al 2001, Bean et al 2010, Prugh 2010). However, giant kangaroo rats have not been observed in the lease area and therefore have not removed any vegetation. As detailed in the burrowing owl section, elk herds will not be expected to reduce grass height significantly since they are free roaming and will leave an area prior to reducing grass height to prescribed levels. In the absence of giant kangaroo rats or soil/geographic features, livestock grazing is the primary method for maintaining short grass structure in areas with higher annual vegetative productivity (Germano et al 2001).

Under the proposed lease, approximately 2,300 acres (~21%) of the annual grasslands will be grazed to a height of 3 inches to enhance habitat for burrowing owls. This management action will also enhance habitat for kit foxes. Previous studies in the San Joaquin Valley showed that fenced areas where livestock were excluded had significantly fewer kit fox captures than areas that were grazed (Warrick and Cypher 1998). Enactment of the provisions of the proposed grazing lease will have a positive impact on kit foxes. In contrast, cessation of grazing in these grasslands will reduce the amount of habitat currently available for this species.

Pallid Bat (*Anrtozous pallidus*) – Pallid bats have been detected with sonic detection equipment at a number locations along the western half of the CPER. Two night roosts have also been located. This species is most commonly associated with oak savannahs and this bat often feeds on the ground (Pierson and Rainey 1998). Reduced annual vegetation with areas of bare ground maintain foraging areas for this species. Pallid bats roost in crevices in rocks, buildings, bridges, caves, mines, and hollow trees. Grazing practices in the woodland management units will be identical in manner and location to prior years and the roost sites will not be impacted by livestock. Therefore, there will not be any impacts to pallid bats resulting from enacting the provisions of the proposed lease.

Ringtail (*Bassariscus astutus*) – Ringtails utilize rocky, areas, dense stands of brush, and riparian habitats (Trapp 1978), all of which occur within the leased area. Despite extensive survey efforts, ringtails have not been detected on site. Livestock typically avoid rocky outcrops and dense brush and the riparian zones have been protected through livestock fencing. Therefore, this species, if it is present on site, is

unlikely to be affected by the ongoing grazing proposed in the lease.

San Joaquin Pocket Mouse (*Perognathus inornatus*) – This species has been captured as part of surveys in the northern grasslands on 4 occasions. Captures were equally distributed between grazed and ungrazed management units. Based upon current knowledge (Bolster 1998, ARCTOS 2011), the animals in and around the reserve have been classified as McKittrick pocket mouse (*P. i. neglectus*), which is not considered a species of special concern. Salinas pocket mouse (*P. i. psammophilus*) is the only subspecies of San Joaquin pocket mouse which is considered a species of special concern (CDFG 2011b). The range of Salinas pocket mouse is restricted to the Salinas Valley area and does not extend south to the area in and around the Carrizo Plain (Williams et al 1993, Bolster 1998, ARCTOS 2011). There will be no impacts to Salinas pocket mouse since the range of this taxa is outside of the lease area.

Townsend's Big-eared Bat (*Plecotus townsendii*) - Townsend's big-eared bats have been detected at 4 locations on and around the western half of the CPER by remote cameras and acoustical recording equipment. This species is considered a moth specialist (Williams 1986, Bolster 1998) and as such, forages primarily on the wing. These bats primarily roost in mines and caves but will also roost in old structures that emulate caves (Bolster 1998). In the inner coastal ranges, Townsend's big-eared bats are typically found in oak woodlands (Bolster 1998). This species will not be impacted by the implementation of the practices in the proposed grazing lease because it forages in the air and there will not be any changes to the management in the oak woodland units.

Western Mastiff Bat (*Eumops perotis californicus*) – Western mastiff bats have been detected at 2 locations on the CPER. This species roosts on tall cliffs and forages over great distances for insects high above the tree canopy (Williams 1986, Bolster 1998, Bat Conservation International 2011). Mastiff bats are limited by drinking water and due to their large size, can only access water sources that are at least 100 feet long (Bat Conservation International 2011). Western mastiff bats will not be impacted by the implementation of the management practices described in the proposed grazing lease because grazing practices will remain largely unchanged compared to prior years.

Western Red Bat (*Lasiurus blossevillii*) – Western red bat has only been detected once at a wildlife watering pond in the Cuyama Valley. Western red bats are considered riparian obligates often roosting in large cottonwoods, willows, or sycamores (Bat Conservation International 2011). This species will continue to benefit from the exclusion of livestock from riparian habitats as described in the proposed lease.

Potential Impacts to Other Resources

While not considered special status species under CEQA, both tule elk and pronghorn have been reintroduced to the Carrizo area and are present, at least temporarily, on site. Impacts to both species will not be significant.

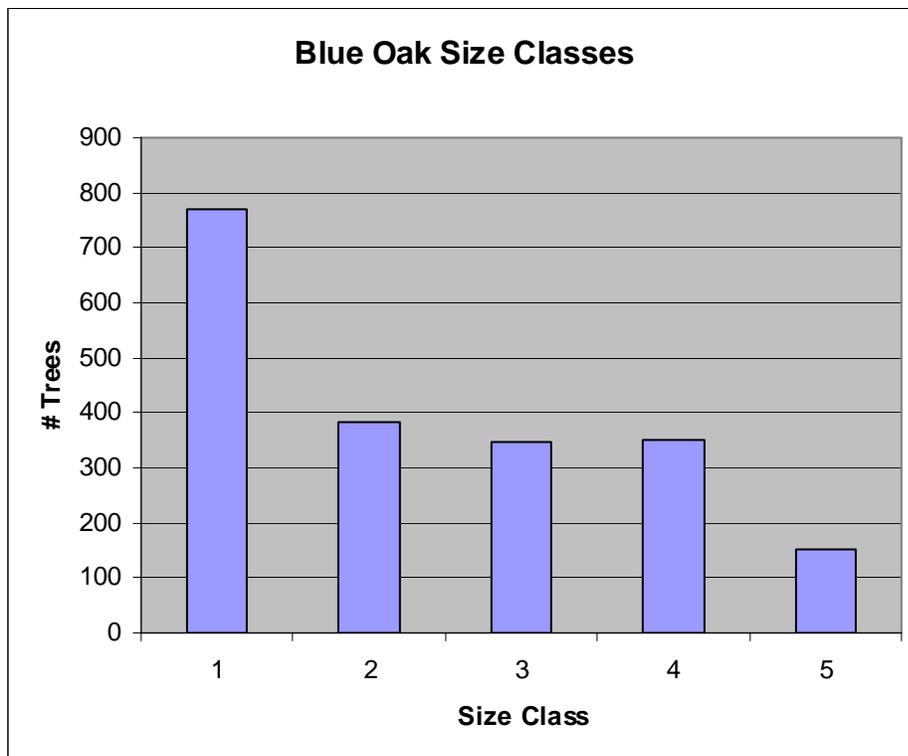
Tule Elk (*Cervus elaphus nannodes*) – Tule elk were reintroduced into the Carrizo Plain area in the late 1980's. This reintroduction has been very successful with approximately 250 elk residing in and around CPER. Data from GPS collars indicate that elk are avoiding areas utilized by livestock (CDFG unpublished data). However, almost 80 percent of the northern grasslands (over 9,000 acres) will continue to remain ungrazed under the proposed lease and there will not be any changes in the areas to remain ungrazed. Under identical management actions, the tule elk population in this area has increased over 20 percent on the reserve since 2000 (CDFG unpublished data). Therefore, there will not be any significant impacts to tule elk resulting from adopting of the proposed grazing lease.

Pronghorn (*Antilocapra americana*) – Pronghorn were reintroduced into the Carrizo area in the late

1980's. In contrast to tule elk, their populations have decreased over the years. The Department has conducted aerial counts of pronghorn since 1998. Between aerial surveys and incidental observations, pronghorn have only been recorded on three occasions on the reserve over the past 13 years. Given the lack of pronghorn use of the area, including both grazed and ungrazed management units, and the fact that the grasslands to be grazed are identical to those grazed over the past 15 years, there will not be any significant impacts to pronghorn from continuing the management practices of the proposed lease.

Blue Oak Woodland – Oak woodlands encompass over 3,500 acres on the western portion of the reserve and most of these areas are available for livestock use. Lack of recruitment of blue oaks has been documented as a problem throughout the species range (Mensing 1992, Swiecki and Bernhardt 1998). Livestock grazing, competition with exotic annual grasses, seedling destruction by gophers and voles, browsing from native ungulates, and thatch buildup have all been suggested as reasons for the lack of recruitment (Swiecki and Bernhardt 1998). While numerous studies suggest a link between livestock grazing and lack of blue oak recruitment, data gathered on the reserve indicate that significant regeneration has and is continuing to occur under existing livestock use patterns (Figure 13). Under the proposed lease, livestock use would continue on the reserve for the next three years at reduced levels to emulate the conditions that have resulted in blue oak regeneration on the reserve.

Figure 13. Blue oak size classes – Class 1=<1”, Class 2=1-6”, Class3=6-11”, Class 4=11-24”, Class 5>=24”



Mitigation Provided By the Draft Lease Agreement

Section 6 of the draft Lease Agreement states that the specific purpose of the lease is to allow managed grazing activities to benefit sensitive resources on the Premises. Section 6 states, in part:

6. Use of Premises: Lessee agrees to conduct managed grazing in annual grasslands and blue-oak woodlands on the Premises to benefit habitat for sensitive grassland species such as San

Joaquin kit fox and burrowing owls and to allow for ongoing research by the Department and Department-approved research entities. Habitat conditions for these species will be improved and maintained by reducing grass height and biomass. Excess vegetation will be removed by regulated livestock grazing pursuant to this Lease.

Accordingly, the draft Lease Agreement specifically limits the use of managed grazing on the Premises for the benefit of sensitive species, consistent with the requirements of Title 14 of the California Fish and Game Code.

As discussed in the Project Description, the draft Lease Agreement sets forth limitations on the use of the Premises relative to managed grazing activities. In sum, grazing activities are to be conducted in a manner that benefits habitat for annual grassland and blue-oak woodland species that include (but are not limited to) San Joaquin kit fox and burrowing owl. To that end, Exhibit B of the draft Lease Agreement sets forth limitations on the number of animal units that may be allowed on the Premises, as well as standards for biomass and residual dry matter to be maintained on the areas to be grazed. Note that, under the terms of the draft Lease Agreement, the allowable number of animal units on the Premises may exceed 350 only so long as the lessee remains in compliance with existing lease agreements for grazing on adjacent federal lands.

In addition, to ensure that grazing activities are conducted in a manner that achieves the overall habitat and biodiversity objectives for the CPER, the draft Lease Agreement sets forth monitoring requirements and remediation actions to be taken to ensure the biomass and residual dry matter standards are achieved and maintained over the term of the lease. Exhibit B describes the various grazing management units, the corresponding biomass and residual dry matter objectives for each unit, as well as remedial actions to be taken to ensure the standards are met and maintained (summarized in Table 3). Exhibit B also describes the methodologies to be used to measure the biomass and RDM, and the methodologies to be used to document the monitoring efforts.

Lastly, the draft lease Agreement prohibits overuse of the Premises which will be determined by the ongoing monitoring requirements for biomass and RDM described above. The draft Lease Agreement requires the lessee to make adjustments in livestock numbers and/or locations to ensure the biomass/RDM standards are maintained.

Strict compliance with the management and monitoring objectives prescribed in the draft Lease Agreement will further the biodiversity objectives of the CPER in a number of ways. For example, a suite of wildlife species that requires low grass heights is present on the CPER and favorable conditions for these species will not be maintained under natural circumstances. Without the reduction in grass height, populations of several short grass species may be substantially reduced or eliminated within the CPER. It is important to note that the overall lease agreement provides for a diversity of grazing management strategies including the exclusion of grazing from over 60% of the CPER. This diversity in management practices will ensure that a mosaic of habitat conditions exist on site which will promote the overall biodiversity of the reserve. Lastly, the grazing practices that allow for periodic recruitment of native species generally result in lower densities of non-native species and are more compatible with sustaining native plant communities.

Moreover, if required monitoring activities indicate that the management objectives are not being met (or have the potential for not being met), the draft Lease Agreement sets forth specific remediation actions to be taken. These actions include, but are not limited to, temporarily removing livestock from an area.

In addition, the draft Lease Agreement specifically excludes areas containing sensitive resources from the areas authorized for managed grazing. These areas include riparian corridors, springs, and wetlands.

c), Less than significant impact. The Premises contains wetlands as defined by Section 404 of the Clean Water Act as well as riparian resources. However, these areas have been previously fenced to exclude livestock grazing. The fencing has been constructed to allow the movement of native species into these areas, but to exclude livestock. Accordingly, by applying the management and monitoring objectives included in the draft Lease Agreement, along with the mitigation measures recommended under items a. and b., above, the continuation of grazing activities will have a less than significant impact on resources regulated by Section 404 of the Clean Water Act..

d) Less than significant impact. Grazing activities will have no impact on resident or migratory fish species. As discussed in Section 8. Hydrology and Water Quality, grazing activities will have a less than significant impact on surface water quality. All fences throughout the Premises are permeable to wildlife; therefore, movement through the Premises is not impeded.

e), Less than significant impact. Consistency with adopted plans and policies relating to the management of sensitive species is discussed in Section 9. Land Use and Planning. This analysis concludes that the draft Lease Agreement is consistent with adopted plans and policies for the protection of biological resources.

f) No impact. There are no adopted habitat conservation plans governing the Premises.

5. CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Potentially Significant unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the proposal:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Section 15064.5 of the State CEQA Guidelines provides guidance for the assessment of potential impacts to historic and archaeological resources, as follows:

15064.5. DETERMINING THE SIGNIFICANCE OF IMPACTS TO ARCHEOLOGICAL AND HISTORICAL RESOURCES

(a) For purposes of this section, the term “historical resources” shall include the following:

- (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4850 et seq.).
- (2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- (3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) including the following:

- (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - (B) Is associated with the lives of persons important in our past;
 - (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - (D) Has yielded, or may be likely to yield, information important in prehistory or history.
- (4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.
- (b) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

- (1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- (2) The significance of an historical resource is materially impaired when a project:
 - (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
 - (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant;or
 - (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.
- (3) Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.
- (4) A lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource. The lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures.

- (5) When a project will affect state-owned historical resources, as described in Public Resources Code Section 5024, and the lead agency is a state agency, the lead agency shall consult with the State Historic Preservation Officer as provided in Public Resources Code Section 5024.5. Consultation should be coordinated in a timely fashion with the preparation of environmental documents.

(c) CEQA applies to effects on archaeological sites.

- (1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subdivision (a).
- (2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.
- (3) If an archaeological site does not meet the criteria defined in subdivision (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c--f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
- (4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

In addition, CEQA Guidelines section 15064.5 (e) sets forth recommendations for procedures to follow in the event of the accidental discovery of human remains in a location other than a dedicated cemetery.

(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

- (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - (A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
 - (B) If the coroner determines the remains to be Native American:
 1. The coroner shall contact the Native American Heritage Commission within 24 hours.
 2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
- (2) Where the following conditions occur, the landowner or his authorized representative shall

rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

- (A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
- (B) The descendant identified fails to make a recommendation; or
- (C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Prehistory

The prehistory of south-central California, including the Carrizo Plain Ecological Reserve (CPER) and the Premises, has been defined in terms of a four-part cultural chronology (Whitley 2010). The Paleoindian Period (before about 8,500 years before present [YBP]) appears to represent the earliest occupation of this portion of California, but it still remains poorly understood due to a paucity of identified sites dating to this early epoch. A possible Paleoindian site has been discovered on the nearby Carrizo Plain National Monument (CPNM), however, suggesting that the CPER region has been occupied and utilized since that time. The Early Millingstone Period, from about 8,500 to 4,000 YBP, was marked by a heavy reliance on plant foods, primarily seeds, shown by a dominance of groundstone plant processing tools in archaeological sites. A single possible Early Millingstone site has also been identified within the CPNM, indicating that the region continued to be occupied, although by a relatively small population.

A major expansion in prehistoric population, marked by a proliferation of large sites, occurred at the start of the Middle Period, which lasted from about 4,000 to 800 YBP. This is believed to correlate with the introduction of the acorn-processing economy, and the subsistence stability that this promoted, along with improving environmental conditions. Within the CPER region, Middle Period villages are typically located along now dry drainages, often some distance from existing springs.

Prehistoric population is believed to have collapsed at the start of the Late Prehistoric Period (800 to 220 YBP), with a 90% reduction calculated for the CPNM (Whitley et al. 2007). Late Prehistoric villages are small and few in number, relative to the earlier Middle Period, and are associated with existing sources of water. This population collapse is hypothesized to be the result of deteriorating environmental conditions, specifically the periodic droughts that have characterized the last millennium or so in western North America.

Ethnographically, the CPER lies in the territory of the Chumash, close to their boundaries with the Salinan, to the north, and the Yokuts, to the east (Whitley 2010). Each of these tribes subsisted by hunting and gathering rather than farming. This involved a seasonal round with periodic movements typically from larger aggregated villages, occupied during the winter, followed by spring and summer dispersal across the landscape into smaller groups (often individual families) to exploit ripening plant species. Although there is archaeological and documentary evidence that a small population of Chumash (approximately 30 people) lived within the Carrizo Plain area during the historical period (after about AD 1770), and may have hunted and gathered within the CPER, no historical villages are known to exist within the reserve.

History

The CPER region was used historically, starting in the second half of the nineteenth century, for ranching and, in some cases, large-scale farming (Whitley 2010). Initial livestock practices involved Hispanic ranchers who used the territory for grazing, but filed no known land claims in the immediate region.

Small-holdings owned by homesteaders were common subsequently but, following the drought of 1895-1896, most of these occupants were bought-out and large-scale ranching became the norm. Large-scale wheat farming became common on the open flats on the wetter, western side of the Carrizo Plain after the turn of the century. The following describes in greater detail the regional land use history and the transitions from livestock grazing, to homesteading, to large-scale farming.

18th and 19th Centuries

During the late 18th and early 19th centuries grazing animals from ranches situated east of the Carrizo Plain occasionally ventured onto the plain for forage but no permanent human settlements were established. Early Mexican and Spanish settlements, and the movement of people and goods between them, also occurred predominantly in coastal areas to the north and west of the Carrizo. The La Panza and Caliente ranges to the west of the Carrizo Plain, and the Temblor Range and marshes of the Tulare Basin to the east, acted as formidable barriers to the establishment of permanent settlements on the plain (Eichel 1971).

Following the admission of California to the union in 1850, large areas of the Carrizo Plain became available for purchase and were acquired by land speculators under the California Land Act of 1851. A small handful of San Franciscans came to own much of the north and considerable acreage in the southern half of the plain (Eichel 1971). The paucity of small parcels of land available for purchase, a condition that persisted until the 1880s, reduced the attractiveness of the Carrizo Plain for settlers.

In the late 1800s, the southern San Joaquin Valley and Tulare Basin were being settled rapidly due to the development of agriculture and construction of a railroad to provide access to markets in San Francisco. The population of western San Luis Obispo County also grew as land previously associated with large Mexican land grants became available for purchase. Because so little land on the Carrizo Plain was available for purchase, however, the area remained essentially unpopulated. This situation changed in 1885 when the Atlantic and Pacific Railroad Company was forced to forfeit rights to land in the northern Carrizo Plain after failing to follow through on plans to build a line connecting Los Angeles and San Francisco (Eichel 1971). Settlers quickly began to move onto and develop 160-acre homesteads on the plain and a few tenant farmers also worked sections of the large, privately owned parcels. The first permanent settlement on the Carrizo Plain, the El Saucito Ranch in the southwestern part of the plain, was built in 1865. Until 1885, seasonally grazed herds of cattle and sheep represented the only commercial use of the plain (Eichel 1971).

Commercial isolation and a challenging local climate constrained the use of agriculture as a viable livelihood on the Carrizo Plain. In the early 1890s the only path to market was a two-day trip along a crude wagon road over the La Panza Mountains to Santa Margarita, the nearest location of a rail connection to San Francisco (Eichel 1971). Productivity of farms on the Carrizo Plain was also limited by the plain's arid climate. Situated in the rain shadow of the Caliente and La Panza mountains the Carrizo Plain receives little rainfall and the hot, dry conditions and scarcity of permanent sources of year-round water represent considerable challenges for agricultural endeavors and basic subsistence. Between 1885 and 1900, cattle grazing remained the primary form of land use with some dry farming of grain to feed the family and livestock (Eichel 1971). A sequence of severe droughts during this period created great hardships for the settlers, driving the majority to leave the plain by 1900.

Early 20th Century

Between 1900 and 1940, mining of sodium sulphate deposits around Soda Lake and oil exploration, particular along the southwestern margin of the plain, brought new transportation and infrastructure developments that slowly improved commercial connectivity of the Carrizo Plain (Eichel 1971). A rail line through McKittrick and across the northern edge of the plain was of particular significance and following its completion large wheat farms began to displace cattle grazing as the primary commercial

activity on the Carrizo Plain. Patterns of land ownership on the plain, however, remained largely unchanged. While tractors made large-scale wheat farming possible, their costs were economically prohibitive for most settlers given the low yield of small homesteads. As these residents abandoned their fields, their homesteads were absorbed into larger properties.

Roads out of the plain to McKittrick and over the Pozo Grade were paved in the 1930s, further connecting the plain with outlying regions and markets. In the 1940s more tenant farmers began to arrive in the northern parts of the plain, where some of the large, privately owned land parcels were divided into smaller farms averaging approximately 6,000 acres (Eichel 1971). Most of these farmsteads were located on or near the east-west state road crossing the northern Carrizo Plain. In the southern parts of the plain settlement patterns did not change significantly. There, large holdings were held intact and not rented to tenant farmers so population density remained low.

Laws passed in the 1960s that regulated agricultural production had a profound impact on land use. The Federal Wheat Program of 1967 imposed acreage limitations and price control provisions and thereby restricted farming of the primary cash crop of the Carrizo Plain (Eichel 1971). The result was a depressive economic impact and a shift to the growth of barley. Between 1965 and 1970 much of the central and southern portions of the plain were purchased by Oppenheimer Industries, further consolidating land ownership (Eichel 1971).

In the late 1960s, the previously rural California Valley began to be developed intensively for residential use. Spurred by hope that the California State Water Project would bring water to the area, developers created over 7,000 2.5-acre parcels. However, the water project was ultimately located north of the Carrizo Plain and, in the absence of sufficient clean water to support the development, the parcels remain largely undeveloped.

Late 20th Century

In recognition of the high conservation value of the Carrizo Plain, owing to its vast area and habitat supporting several endangered species, state and federal agencies and conservation organizations began work to protect the region from future, intensive development. In 1984, The Nature Conservancy (TNC) and Bureau of Land Management began exploring the possibility of acquiring extensive lands in the Carrizo Plain region for conservation and restoration for rare and endangered San Joaquin Valley species, as well as other components of San Joaquin Valley vegetation and wildlife. Strategies for acquisition and management of the lands were developed through workshops including TNC, BLM, the Department, and the US Fish and Wildlife Service (USFWS) (BLM 2010).

In 1985, the USFWS, BLM, and the Department signed a Memorandum of Understanding to establish the Carrizo Plain Natural Area (CPNA). The objectives of the CPNA were developed by the agencies, which convened a steering committee that included local, state, and federal government officials and representatives of the ranching, oil, gas and mining industries, and environmental groups (BLM 2010).

In 1988, TNC completed the first conservation acquisition within the Carrizo Plain when it purchased 82,000 acres owned by Oppenheimer Industries. In 1988 and 1989, BLM received funding from Congress to acquire 23,000 acres and 28,500 acres, respectively (BLM 2010).

The Department, which had protected the 160-acre Elkhorn Unit in 1983, collaborated with The Nature Conservancy to create and expand the Carrizo Plain Ecological Reserve through acquisitions of portions of the American Unit and the entire Panorama Unit in 1988 and 1989, respectively. In the ensuing 15 years, the Department worked with TNC to assemble the additional lands of the CPER through expansion of the American Unit and creation of the Chimineas Unit.

Conclusions

a. Less than significant impact. The draft Lease Agreement prohibits the construction, alteration or addition of improvements on the Premises, including structures that may be eligible for inclusion on the State Register of Historic Places, unless and until approval is granted by the Department. According to the survey of cultural and historic resources prepared for the Chimineas Unit (discussed below) the existing ranch house has been so significantly altered over the years as to preclude its inclusion on the Register of Historic Places. Nonetheless, the draft Lease Agreement requires the lessee to maintain existing structures, including the ranch house.

b. Potentially Significant unless Mitigation Incorporated. Archaeological sites have been previously recorded within the Chimineas Unit by a variety of individuals, though no one has conducted systematic surveys within the unit. In 2008, the California State University, Bakersfield, Center for Archaeological Research (CAR) conducted a reconnaissance of the unit, primarily focused on recording known historical locales (Orfila and Draucker 2008). ASM Affiliates, Inc., conducted a second reconnaissance in 2009, emphasizing additional known but unrecorded prehistoric sites (Whitley 2010).

Twenty-two archaeological sites are known within the Chimineas Unit where the Premises are located. These include 12 prehistoric villages, camps, pictographs, and lithic workshops, five bedrock mortar (BRM) stations, and one isolated artifact, as well as five historical sites/site components. Some of the sites include both prehistoric and historical components. All but two sites appear to be in good condition. The draft Lease Agreement specifically excludes from the Premises to be grazed the area where a significant archaeological site has been previously documented. Livestock will be excluded from significant archaeological sites by existing fencing, much of which was recently constructed to protect riparian resources.

In April and May, 2011, a Phase I archaeological investigation (surface reconnaissance and literature search) was conducted for existing areas where livestock congregate, as well as locations where watering and holding areas could be located in the future. The purpose of the investigation was to determine the likelihood that the congregation of livestock in these areas could adversely impact significant cultural resources that may be present. A total of 34 trough locations was inspected; all displayed discrete cattle impact areas (lack of vegetation and soil deflation) and were carefully surveyed. No evidence of cultural resources was found at any trough location. Surface surveys were also conducted within the feedlots where visibility was adequate to determine absence of cultural resources. The existing Garcia corrals were very densely vegetated at the time of the survey which limited the reliability of the negative determination in this area. While no artifacts were observed in the surveyed areas (only about 5% of soils were exposed), it is recommended that additional survey be conducted at such a time that improvements are made to the existing fencing.

Recommended Mitigation

CR-1 The development of any new cattle support facilities (troughs, corrals, etc.) shall be preceded by additional Phase I surveys.

- a. If a cultural site is located, implement a Phase 2 testing plan to determine if the site is eligible for listing in the California Register.
- b. If the site is determined to be eligible for listing in the California Register, either (1) relocate the support facility to an area free of significant cultural resources, or (2) design and implement an appropriate data recovery plan (Phase 3).

CR-2 Prior to improvements at the Garcia Corrals, implement the following:

- a. Conduct additional Phase I survey within the corrals after reducing the height of the vegetation or during fence improvements (to examine backsoil from fence posthole digging).
- b. If a cultural site is located, implement a Phase 2 testing plan to determine if the site is eligible for listing in the California Register.
- c. If the site is determined to be eligible for listing in the California Register, either (1) relocate the support facility to an area free of significant cultural resources, or (2) design and implement an appropriate data recovery plan (Phase 3).

With implementation of the above-referenced mitigation, impacts associated with prehistoric cultural resources are considered less than significant.

c. Less than significant impact. Although no previously identified unique paleontological resources or sites or unique geological features have been identified on the Premises paleo deposits do exist at several locations. However, ongoing grazing operations are not expected to adversely impact such resources. In addition, as discussed above, the draft Lease Agreement prohibits the construction, alteration or addition of improvements on the Premises unless and until approval is granted by the Department.

d. Less than significant impact. Previous archaeological investigations of the Premises (Whitley 2010) suggest the potential for human remains to be discovered in at least one previously-documented site. However, use of this area for the concentration of livestock is specifically prohibited by the draft Lease Agreement. In addition, a Phase I archaeological investigation conducted in April and May, 2011 concluded that there is a very low probability of livestock disturbing previously undiscovered archaeological resources elsewhere on the Premises. However, in the unlikely event that human remains are discovered as a result of continued livestock grazing, the provisions of CEQA Guidelines section 15064.5 (e) will be applied.

6. GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Geology and Soils. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Seismicity

Eastern San Luis Obispo County is an area of considerable seismic activity, and a number of tectonic faults criss-cross the landscape. The most notable fault in the area of the CPER is the San Andreas Fault, which traverses the foothills of the Temblor Range between the Carrizo Plain and the Elkhorn Plain. It passes through the northeastern quarter of the Panorama Unit and within less than a quarter of a mile of the southwest corner of the Elkhorn Unit. The 800-mile long San Andreas Fault is the longest fault in

California. This right-lateral strike-slip fault represents the boundary at which the Pacific Plate is moving northwest past the North American Plate. In the vicinity of the CPER the San Andreas Fault has been active within the last 150 years and has an estimated slip rate of more than 0.2 inches per year.

Three faults are present within the Chimineas Unit. The San Juan and Chimineas faults are roughly coincident and run along the eastern base of the Caliente and La Panza ranges on the southwestern side of the Carrizo Plain. They enter the Chimineas Unit near its northwestern corner and continue southeast before terminating near the center of the unit. The La Panza Fault runs through the southwestern of the Caliente and La Panza ranges and crosses through the southern portion of the Chimineas Unit before terminating near the Cuyama River. All three of these faults are believed to have last been active sometime within the past 1.6 million years and have an estimated slip rate of less than 0.008 inches per year.

Three additional faults believed to have last been active sometime within the past 1.6 million years and have an estimated slip rate of less than 0.008 inches per year occur within the vicinity of the CPER but do not directly underlie the units. Just north of the San Juan and Chimineas faults, the Big Spring Fault runs northwest to southeast and comes within approximately two miles of the northwestern corner of the American Unit. The Morales Fault has a similar orientation to and is in-line with the San Juan and Chimineas faults but is located approximately five miles southeast of the eastern border of the Chimineas Unit. The South Cuyama fault runs northwest to southeast through the Cuyama Valley and passes within one miles of the southern border of the Chimineas Unit.

Soils

Located on the eastern slopes of the La Panza Range Mountains, the northwestern portion of the unit features primarily two soil complexes: Tajea-Saltos and Gaviota-Saltos Rock Outcrop. Tajea-Saltos complex soils (2,854 acres, 10%) are very shallow to moderately deep, well drained, loam, clay loam and sandy clay loam soils found on moderate to very steep slopes and formed in residuum weathered from sandstone. Gaviota-Saltos-Rock outcrop complex soils, which occur on 1,461 (5% of the unit), are shallow, well drained loam, sandy loam, and sandy clay loam soils found on moderately steep to very steep hills and mountains and are formed in residuum weathered from sandstone. These soils support a mosaic of relatively fine-scale mosaic of blue oak woodland dominated by blue oaks (*Quercus douglasii*), chaparral dominated by chamise (*Adenostoma fasciculatum*), and coastal scrub featuring by California buckwheat (*Eriogonum fasciculatum*) and purple sage (*Salvia leucophylla*), which reflects the variation in slope-aspect.

Located primarily along the northern edge of the unit at and west of the border with the American Unit, the Seaback-Panoza-Jenks complex of loam soils occur on 2,072 acres (7%) of the Chimineas Unit. As in the American Unit, these loam soils support primarily grassland dominated by non-native annual grasses but feature small patches of native perennial grass and forb-dominated herbaceous communities as well.

The Beam-Panoza-Hillbrick complex of typically fine, sandy loam soils derived from the weathering of soft, calcareous shale, conglomerate, or sandstone occurs on 7,143 acres (24% of unit) as a relatively wide and continuous band running southwest to northeast across from the southern end of the La Panza Range to the northern Caliente Range Mountains. This band of soils support primarily grasslands dominated by non-native annual grasses and forbs, but featuring small pockets of shrubs including interior goldenbush (*Ericameria linearifolia*) and bush lupine (*Lupinus albifrons*) and small California juniper (*Juniperus californicus*).

Adjacent to the Beam-Panoza-Hillbrick soils in the northern Caliente Range, San Timoteo-San Andreas-Bellyspring complex soils occur on 2,561 acres (9%) in the eastern portion of the Chimineas Unit. These moderately deep, well drained sandy loam soils formed from weathered sedimentary rocks and support

juniper woodland dominated by California juniper (*Juniperus californica*).

The southern slopes of the Caliente Mountains near the southern boundary of the Chimineas Unit in the Cuyama River Valley feature 1,749 acres (6% of the unit) of Shedd silty clay loam: well drained, calcareous silty clay loams underlain by calcareous shale bedrock. These soils are near an additional 1,070 acres (3.5%) of Aido clay soils, which are similarly formed from weathered calcareous shale or fine-grained sandstone. These soils support primarily grassland, with smaller patches of desert scrub and coastal scrub occurring on south-facing slopes.

The south-central portion of the Chimineas Unit features primarily sandy loam soils derived from weathered sandstone including the Saucito-Akad-Rock outcrop complex, which covers 2,561 acres (8.5%) and the Pleasanton sandy loam, which covers 592 acres. Located on the uplifted stream terraces above the Cuyama River, these areas support a fine-scale mosaic of grasslands dominated by non-native grasses, coastal scrub dominated by California buckwheat and purple sage, with small patches of blue oak woodland and savannas occurring in the canyons. The lower river terraces feature predominantly Mocho fine sandy loam characteristic of alluvial valleys in the region, which supports riparian communities dominated by arrow weed (*Pluchea sericea*).

According to the US Department of Agriculture, Natural Resource Conservation Service, soils on the Premises have a low susceptibility to erosion as summarized on Table 9.

Table 9 -- Dominant Soils Of The Chimineas Unit of the CPER				
Soils	Acres	Percent Of Chimineas Unit	Characteristics	Susceptibility to Erosion ⁴
Tajea-Saltos	2,854	10%	very shallow to moderately deep, well drained, loam, clay loam and sandy clay loam soils found on moderate to very steep slopes	Low
Gaviota-Saltos-Rock outcrop	1,461	5%	shallow, well drained loam, sandy loam, and sandy clay loam soils found on moderately steep to very steep hills and mountains	Low
Seaback-Panoza-Jenks complex	2,072	7%	loam soils	Low
Beam-Panoza-Hillbrick complex	7,143	24%	fine, sandy loam soils derived from the weathering of soft, calcareous shale, conglomerate, or sandstone	Low
San Timoteo-San Andreas-Bellyspring	2,561	9%	moderately deep, well drained sandy loam soils formed from weathered sedimentary rocks	Low
Shedd silty clay loam	1,749	6%	well drained, calcareous silty clay loams underlain by calcareous shale bedrock	Low
Aido clay soils	1,070	3.5%	weathered calcareous shale or fine-grained sandstone	Low
Saucito-Akad-Rock outcrop	2,561	8.5%	sandy loam soils derived from weathered sandstone	Low
All Other	8,529	27%		
Total:	30,000	100%		

Source:

1. Eastern San Luis Obispo County (Oster and Vinso 2003): covers 33,818 acres (85.4%) of the CPER including all of the American, Panorama, and Elkhorn units and all but the southern and western portions of the Chimineas Unit.
2. Northern Santa Barbara Area (Shipman 1972): covers 12% of the CPER in the southern portion of the Chimineas Unit.
3. Los Padres National Forest (O'Hare and Hallock 1980): covers 2.6% of the CPER, on the western side of the Chimineas Unit.
4. Natural Resources Conservation Service, Soil Survey of San Luis Obispo County Carrizo Plain Area, Table 16. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Conclusions

a), b), c), d), e) No Impact. The draft Grazing Lease does not authorize the construction of structures which in turn would result in the exposure of people or property to an increased risk from seismic activity, landslides, unstable or expansive soils. No additional septic tanks or wastewater disposal facilities are authorized by the draft Lease Agreement.

b) Less Than Significant. Soils of the Premises have a low susceptibility to erosion, as discussed above. Nonetheless, managed livestock grazing authorized by the draft Lease Agreement has the potential to result in soil erosion in areas where cattle congregate, such as watering troughs and holding areas. The potential acreage where erosion could occur in these areas is about 10 acres. The total area susceptible to erosion from the concentration of cattle amounts to about 0.1 percent of the total Premises.

None of the watering or holding areas are located where the erosion of topsoil could result in a degradation of water quality in nearby surface or groundwater bodies.

Soil erosion could be exacerbated if overgrazing occurs in one or more of the grazing management units. However, Exhibit B of the draft Lease Agreement provides minimum standards for biomass and residual dry matter to be maintained on each unit, as well as monitoring requirements to ensure these standards are achieved and maintained. Lastly, the draft Lease Agreement provides mandatory remediation actions to be taken in the event the minimum biomass or RDM standards are not achieved.

Section 9.2 of the draft Lease agreement states that the annual grazing fee can be reduced if the lessee provides in kind services on the Reserve, such as site security, maintenance of the main ranch complex, maintenance of fire breaks, waterline repair, and maintenance of existing roads. Road maintenance activities may include repair of erosion gullies in roadways, scraping of the roadway surface when/if needed, and/or mowing the annual vegetation growing within the confines of the existing roadway. Widening or redirecting roadways will not be allowed as part of this lease. Road maintenance actions are expected to occur once per year as necessary to provide for safe access to on site facilities and reduce erosion. During the term of the lease, these actions are intended to have a beneficial impact with respect to erosion by maintaining the slope and integrity of the roadway surface. Road widths will not be increased and vegetation removal shall be limited to that which is growing in the existing roadway to reduce the chances of igniting a wildfire. Although potential impacts to soils and erosion associated with roadway maintenance are considered adverse but not significant, the following mitigation measures/Best Management Practices will be applied to activities with the potential to result in soil erosion:

GEO-1 Apply the following best management practices (BMPs) as applicable.

a. For roadway maintenance apply the following:

Evaluate the need to grade each road or section of road rather than following a set schedule for road maintenance. Do not undertake maintenance activities unless necessary for road drainage, safety, or function.

Inslope roadways on steep slopes to convey runoff toward the uphill side of the roadway;

Outslope roadways on gentle slopes to create a slight crown in the center;

Install drainage ditches adjacent to roadways to convey runoff to surface water courses;

Install culverts where necessary to prevent erosion.

To prevent the spread of invasive/non-native plants, apply the following:

Wash grading equipment to avoid transporting weed seeds, and inspect and clean equipment after working in or traveling through weedy areas.

Wash road graders and other equipment immediately after operating in infested areas. Clean all dirt and plant parts from the undersides of mower decks.

Use only clean fill material from a weed-free source rather than borrowing fill from a weed-infested stockpile, road shoulder, or ditch line.

GEO-2. Avoid soil-disturbing activities during periods of runoff, or when soils are muddy, in order to minimize damage.

GEO-3. Design surface-disturbing activities to minimize wind and water erosion. Consistency with state air pollution laws shall be maintained.

Implementation of the mitigation measures/Best Management Practices described above, along with the management, monitoring and remediation actions provided in the draft Lease Agreement will reduce potential soils erosion impacts to a less than significant level.

Implementation of the management, monitoring and remediation actions provided in the draft Lease Agreement will reduce potential soils erosion impacts to a less than significant level.

In addition, prior to the implementation of any projects that are consistent with the Draft Lease Agreement, the Department would subject them to CEQA review according to CEQA Guidelines Section 15168, in light of the information in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164.

7. HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Hazards and Hazardous Materials. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion/Conclusions

c), d), e), f), g) No impact. As described in the Project Description, adoption and implementation of the draft Lease Agreement would not involve the routine transport, use, or disposal of any hazardous materials; would not pose any risk of hazardous exposure to school children; would not involve any uses that would affect air traffic; and is anticipated to improve emergency response and evacuation through a reduction of fuel load. Therefore, adoption and implementation of the draft Lease Agreement would not introduce or intensify any of these hazardous risks to the public or the environment.

The State of California Hazardous Waste and Substances Site List (also known as the “Cortese List”) is a planning document used by state and local agencies and developers to comply with the siting requirements prescribed by federal, State, and local regulations relating to hazardous materials sites. California Government Code Section 65962.5 requires the California Environmental Protection Agency (Cal-EPA) to annually update the Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for preparing a portion of the information that comprises the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information that is part of the complete list. DTSC’s Site Mitigation and Brownfields Reuse Program EnviroStor database provides DTSC’s component of Cortese List data by identifying State Response and/or Federal Superfund and backlog sites listed under Health and Safety Code Section 25356. In addition, DTSC’s Cortese List includes Certified with Operation and Maintenance sites. A search of the Cortese database conducted in May, 2011 for sites within the Premises revealed no active sites.

a, b, h) Less than significant impact.

a), b) As part of the proposed lease, commercially available household pesticides and herbicides may be used in the immediate vicinity of the main ranch complex in accordance with existing regulations and only in such manner as prescribed on the labels for these products. Use of these products outside of the main ranch complex is prohibited as part of the lease.

With small exceptions (containers less than 5 gallons, above ground fuel tanks, existing propane tanks), the lease prohibits the generation, use, storage, transportation, disposal, discharge or release of any Hazardous Substance. All of the above ground fuel tanks have metal catch basins to prevent any release onto the ground surface.

The amounts of hazardous materials, the restrictions in their storage, prohibitions on using them outside of the main ranch complex area, and adherence to all regulations and use labels (as detailed in the proposed lease) will ensure that any impacts from hazardous materials are not significant.

h) The Premises are located in a region where wildfire is a large concern. Construction activities (e.g. installation of fencing and signage) that involve the use of mechanical equipment would have the potential for increasing wildfire hazard, although not to a significant extent. In addition, grazing activities authorized by the draft Lease Agreement will help reduce the fuel load in areas susceptible to fires. Therefore, net project impacts related to wildfire hazards would be beneficial.

In addition, prior to the implementation of any projects that are consistent with the draft Lease Agreement, the Department would subject them to CEQA review according to CEQA Guidelines Section 15168, in light of the information in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164.

8. HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury, or death involving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

flooding, including flooding as a result of the failure of a levee or dam?

- j) Result in inundation by seiche, tsunami, or mudflow?
-

Discussion/Conclusions

a), b), c), d), e), g), h), i) No impact. As described in the Project Description, the draft Lease Agreement does not authorize any activities that would:

- Violate any water quality standards or discharge requirements.
- Substantially deplete groundwater supplies or groundwater re-charge.
- Substantially alter existing drainage patterns.
- Create or contribute runoff that would exceed the capacity of drainage systems.
- Place housing within a 100-year floodplain.
- Place structures within a 100-year flood area that would impeded or redirect flood flows.
- Expose people or property to risks associated with flooding or dam failure.
- Result in inundation by seiche, tsunami or mudflow.

f) Less than significant impact. As discussed under section VI. Geology and Soils, soils associated with the Premises have a low susceptibility to erosion. Nonetheless, managed livestock grazing authorized by the draft Lease Agreement has the potential to result in soil erosion which in turn could adversely impact surface water quality in areas where cattle congregate. As discussed in section VI., the total area susceptible to erosion from the concentration of cattle is a small fraction of the total Premises. Moreover, the areas where cattle congregate will be rotated to minimize potential soil erosion at a given location. None of the watering or holding areas are located where the erosion of topsoil could result in a degradation of water quality in surface or groundwater bodies.

Soil erosion and associated surface water quality degradation could be exacerbated if overgrazing occurs in one or more of the grazing management units. However, Exhibit B of the draft Lease Agreement provides minimum standards for biomass and residual dry matter to be maintained on each unit, as well as monitoring requirements to ensure these standards are achieved and maintained. Lastly, the draft Lease Agreement provides mandatory remediation actions to be taken in the event the minimum biomass or RDM standards are not achieved.

Implementation of the management, monitoring and remediation actions provided in the draft Lease Agreement will reduce potential impacts to surface water quality to less than significant.

In addition, prior to the implementation of any projects that are consistent with the draft Lease Agreement, the Department would subject them to CEQA review according to CEQA Guidelines Section 15168, in light of the information in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164.

9. LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
-----------------------------	--------------------------------	--	------------------------------	-----------

IX. Land Use and Planning. Would the project:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a), No impact. As discussed in the Project Description, the draft Lease Agreement does not have the potential to physically divide a community.

b), c) Less than significant. The San Luis Obispo County General Plan designates the Premises as Recreation and Rural Lands. Grazing activities are allowed in these land use categories. However, properties owned and managed by the State of California are not subject to local land use regulations.

At the time of preparation of this initial study, a Land Management Plan (LMP) is being prepared for the CPER as required by Section 1580 of the Fish and Game Code. The LMP is expected to be adopted in the fall of 2011 following execution of the draft Lease Agreement. The draft Lease Agreement anticipates adoption of the LMP and provides language to ensure consistency between the two. Specifically, item 7. Use of Premises, states in part:

“Upon adoption by the Department of a grazing or management plan for the Reserve Property, the biomass/RDM requirement specified above shall be superseded by the provisions of the grazing or management plan.”

Thus, should the LMP include management objectives that differ from the draft Lease Agreement, the provisions of the LMP will prevail.

Ecological reserves are governed by Title 14, section 630 of the California Fish and Game Code. Grazing activities are addressed specifically by sub-section 15 of Section 630 which states:

(15) *Grazing. The grazing of livestock is prohibited on any ecological reserve except that grazing may be allowed for habitat or vegetation management purposes under permit of the department.*

The use of the Premises for grazing is addressed by Section 6 of the draft Lease Agreement which states, in part:

7. Use of Premises: Lessee agrees to conduct managed grazing in annual grasslands and blue-oak woodlands on the Premises to benefit habitat for sensitive grassland species such as San Joaquin kit fox and burrowing owls and to allow for ongoing research by the Department and Department-approved research entities. Habitat conditions for these species will be improved and maintained by reducing grass height and biomass. Excess vegetation will be removed by regulated livestock grazing pursuant to this Lease.

Accordingly, the draft Lease Agreement specifically limits the use of the Premises to managed grazing for the benefit of sensitive species, consistent with the requirements of Title 14.

Goals and Policies of the California Wildlife Action Plan

In 2000, Congress enacted the State Wildlife Grants Program to support state programs that broadly benefit wildlife and habitats but particularly “*species of greatest conservation need.*” As a requirement for receiving funding under this program, state wildlife agencies were to submit a Wildlife Action Plan (comprehensive wildlife conservation strategy) to the U.S. Fish and Wildlife Service in 2005. To that end, the Department, working in partnership with the Wildlife Health Center, University of California, Davis, directed the development of the report entitled California Wildlife: Conservation Challenges, the state’s Wildlife Action Plan, (“Action Plan”) and associated Web publications.

The Action Plan is directed at answering three primary questions:

- What are the species and habitats of greatest conservation need?
- What are the major stressors affecting California’s native wildlife and habitats?
- What are the actions needed to restore and conserve California’s wildlife, thereby reducing the likelihood that more species will approach the condition of threatened or endangered?

Accordingly, the Action Plan provides an inventory of species at risk throughout California and sets forth broad actions aimed at restoring and conserving those species most at risk.

The Action Plan divides the State into regions for study purposes; the CPER and the Premises lie within the Central Coast Region. For the Central Coast Region the Action Plan identifies the following main stressors to wildlife:

- Growth and development
- Intensive agriculture
- Excessive livestock grazing
- Water management conflicts and degradation of aquatic ecosystems
- Recreational pressures
- Invasive species

To address these issues, the Action Plan sets forth the following conservation actions for the Central

Coast region:

- a) *Wildlife agencies should establish regional goals for species and habitat protection and work with city, county, and state agency land-use planning processes to accomplish those goals.*

Discussion. This conservation action is not applicable to the adoption of the draft Lease Agreement. However, as discussed above, the continuation of grazing activities on the Premises is intended to be used as a management tool consistent with the limitations for Ecological Reserves prescribed by Title 14, section 630 of the California Fish and Game Code.

- b) *Federal, state, and local agencies, along with nongovernmental organizations, should work with private landowners and land managers to implement agricultural and rangeland management practices that are compatible with wildlife and habitat conservation.*

Discussion: As discussed under item a., above, the continuation of grazing activities on the Premises is intended to be used as a management tool consistent with the limitations for Ecological Reserves prescribed by Title 14, section 630 of the California Fish and Game Code.

- c) *Federal, state, and local agencies, along with nongovernmental organizations, should work with private landowners to both continue and develop programs that help keep grazing land uses profitable.*

Discussion: Adoption of the draft Lease Agreement is consistent with this conservation action. The draft Lease authorizes continued grazing of the Premises in partnership with a private cattle operation.

- d) *Federal, state, and local agencies, along with nongovernmental conservation organizations, should work to protect large, relatively unfragmented habitat areas, wildlife corridors, and underprotected ecological community types.*

Discussion: As discussed under section 4. Biological Resources, the continuation of grazing activities is intended to help improve the diversity of plant and animal species on the Premises.

- e) *Federal, state, and local public agencies should sufficiently protect sensitive species and important wildlife habitats on their lands.*

Discussion: As described in the Project Description the draft Lease Agreement sets forth specific quantified management objectives and remediation actions for grazing activities aimed at protecting and improving habitat for special status plants and animals. These management objectives and remediation actions, together with the mitigation measures recommended in section 4. Biological Resources, will ensure consistency with this conservation action.

- f) *Federal, state, and local agencies should work to restore fish passage in aquatic systems important for anadromous and wide-ranging fish populations.*

Discussion: As discussed in section 4. Biological Resources, adoption of the draft Lease Agreement will have no affect on the movement of fishes or fish populations.

- g) *State and local agencies should allocate sufficient water for ecosystem uses when planning for and meeting regional water supply needs. Providing adequate water for wildlife and instream uses is particularly important in systems that support sensitive species or important habitat areas.*

Discussion: The expansion of watering opportunities authorized by the draft Lease Agreement are intended to provide additional water for wildlife species on the Premises.

- h) State and federal agencies should work to protect and restore biologically significant regional river systems.*

Discussion: The draft Lease Agreement will have no direct impact on biologically sensitive regional river systems. However, there are a number of creeks on the Premises that support sensitive riparian resources. These riparian corridors have been fenced to exclude livestock and protect the associated resources.

- i) Federal, state, and local agencies should provide greater resources and coordinate efforts to control existing occurrences of invasive species and prevent new introductions.*

Discussion: As discussed in Section 4. Biological Resources, the continuation of managed grazing activities is intended to help promote the re-establishment of native plant species on the Premises.

Overall, the draft Lease Agreement, as mitigated by this initial study, is consistent with the Action Plan.

10. MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Mineral Resources. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion

a), b) No Impact. Consistent with the Project Description, the draft Lease Agreement will have no impact on existing mineral resources.

11. NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Noise. Would the project:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusions

a), b), c), d), e), f) No Impact. As described in the Project Description, the draft Lease agreement does not authorize the construction of any structures or other activities that would generate significant amounts of noise either temporarily or permanently. The Premises consists of a 13,500 acre portion of a former cattle ranch where there are no sensitive noise receptors.

In addition, prior to the implementation of any projects that are consistent with the draft Lease Agreement, the Department would subject them to CEQA review according to CEQA Guidelines Section 15168, in light of the information in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164.

12. POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Population, and Housing. Would the project:				
a) Induce substantial population growth in an area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing homes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusions

a), b), c). No impact. Consistent with the project description, adoption and implementation of the draft Lease Agreement would not involve housing changes, nor would it induce growth by the provision of new infrastructure or by the removal of any barriers to growth. Implementation of some of the management goals and tasks may require a minimal addition of staff hours, but this would not require a substantial change in the numbers of existing homes. Adoption and implementation of the draft Lease Agreement would have no impact on population or housing.

13. PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------	--------------------------------	--	------------------------------	-----------

XIII. Public Services Would the project:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusions

a) Less-than-significant impact/No Impact. Adoption of the draft Lease Agreement would not require changes to existing levels of public services. As discussed in the Project Description, the draft Lease Agreement does not authorize additional structures or resident population that would generate school-aged children or additional demand for police and fire protection and parks.

Additionally, in the long term, fire protection needs may decline with reduction of fuel loads associated with grazing activities and restoration of a natural mixed age structure of grassland, oak woodland and juniper habitats that are less likely to enable development of large wildfires. Impacts related to the provision of public services are considered less than significant.

14. RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Recreation. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion/Conclusions

a), No impact. As described in the Project Description, the draft Lease Agreement does not authorize additional structures or resident population that would generate additional demand for parks or recreation facilities.

b) Less than significant impact. The Chimineas Unit of the CPER, which contains the Premises, is subject to managed public access for hunting during limited times of the year.

Item No. 21 of the draft Lease Agreement acknowledges the continued use of the Premises for public access and recreation:

21. Public Access: With the exception of the ranch manager’s residence and the workshop, lessee acknowledges and agrees that the Premises and every part thereof shall be subject to use for public recreation including, but not limited to, public hunting, public fishing, and field trials, under applicable laws of the State of California and rules and regulations of the California Fish and Game Commission. The Department, its directors, officers, agents, employees and volunteers shall not be responsible for loss or damage to livestock or property or injuries (including death) to persons which may arise from or be incident to such use of the Premises by the public.

The continuation of grazing would have a less than significant impact on access or use of the Premises for hunting or other currently-allowed recreation uses.

In addition, prior to the implementation of any projects that are consistent with the draft Lease Agreement, the Department would subject them to CEQA review according to CEQA Guidelines Section 15168, in light of the information in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164.

15. TRANSPORTATION/TRAFFIC

ENVIRONMENTAL ISSUES		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV.	Transportation/Traffic. Would the project:				
	a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b) Exceed, individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusions

a), b), Less than significant impact. Regional roadway access to the Premises is provided by State Route 58 and Soda Lake Road from California Valley, and State Route 166 through the Cuyama Valley. Table 10 provides a summary of existing traffic volumes and level of service (a measure of traffic volume to capacity, with LOS A being free flow conditions and LOS F being gridlock).

Table 10 -- Existing Roadway Traffic Volumes and Levels of Service				
Roadway Segment	Configuration	Annual Average Daily Traffic	Peak Hour Volume	Level of Service
Highway 58: West of Shell Creek Road ¹	Two-lane Rural Highway	440	60	A
Soda Lake Road South of State Route 58 ²	Two-Lane Rural County Road	202	25	A
State Route 166 at Bell Road ³	Two-Lane Rural Highway	3,600	620	A
Sources:				
<ol style="list-style-type: none"> 1. Wood Rogers, 2010, Table C.14-1, Final Environmental Impact Report for the Topaz Solar Project 2. San Luis Obispo County Traffic Counts, August 2008, http://www.slocounty.ca.gov/PW/Traffic/Traffic_Counts.htm 3. Caltrans, 2008 				

Traffic generation associated with existing grazing activities generates an average of about 2 motor vehicle trips per day. Trip generation associated with the draft Lease Agreement is expected to remain at this level through the term of the Lease. Since each major roadway serving the Premises is currently operating at LOS A, adoption of the Draft Lease Agreement is not expected to adversely impact traffic volumes on roadways serving the Premises.

c), d), e) f), g) No impact. Execution of the draft Lease Agreement would have no impact on air traffic, or result in transportation hazards. Emergency response would remain unchanged from present.

The draft Lease Agreement would not generate the need for additional parking or conflict with policies relating to alternate forms of transportation.

In addition, prior to the implementation of any projects that are consistent with the draft Lease Agreement, the Department would subject them to CEQA review according to CEQA Guidelines Section 15168, in light of the information in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164.

16. UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI.	Utilities and Service Systems Would the project:				
	a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusions

a), b), c), e), f), g). **No impact.** Based on the Project Description, the draft Lease Agreement would have no impact on wastewater, water treatment, storm water, wastewater treatment capacity, or solid waste disposal capacity.

d) **Less than significant impact.** Historically, livestock operations on the Premises have relied on groundwater supplies conveyed to water troughs located around the Premises and fed by pipes from wells. As described in the Project Description and Baseline Environmental Conditions, natural springs and riparian corridors have been fenced off to exclude cattle and protect sensitive resources.

The draft Lease Agreement authorizes grazing activities that would accommodate as many as 450 animal units on the Premises (assuming federal leases are maintained in good standing). The number of animal units authorized for the Premises by the draft Lease Agreement is less than the number allowed by the current lease. Thus, the water demand associated with the draft Lease Agreement would be equal to or less than existing demand. Accordingly, the impact of the draft Lease Agreement on water supplies is considered less than significant.

In addition, prior to the implementation of any projects that are consistent with the draft Lease Agreement, the Department would subject them to CEQA review according to CEQA Guidelines Section 15168, in light of the information in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164.

17. MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------	--------------------------------	--	------------------------------	-----------

XVII. Mandatory Findings of Significance:

a) Does the project have the potential to substantially degrade the quality of the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited but cumulatively considerable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Authority: Public Resources Code Sections 21083 and 21087.

Reference: Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.3, 21093, 21094, 21151; Sundstrom v. County of Mendocino, 202 Cal.App.3d 296 (1988); Leonoff v. Monterey Board of Supervisors, 222 Cal.App.3d 1337 (1990).

Discussion/Conclusion

a). Execution of the draft Lease Agreement would potentially degrade the environment as a result of:

- Impacts to habitat for special status plant and animal species
- Cultural resources
- Erosion and water quality

The preceding analysis concludes that these impacts would be less than significant by implementing the management standards, monitoring and remediation activities required by the draft Lease, in addition to the mitigation measures listed below. Overall, the grazing activities authorized by the draft Lease Agreement are expected to have a beneficial impact on the environment by improving habitat for special status animal species and by reducing the fuel load for wildfires.

b) Does the project have impacts that are individually limited but cumulatively considerable?

As discussed in the Project Description, the draft Lease Agreement authorizes managed grazing on a 12,000 acre portion of the CPER for a three year period beginning in 2011 and ending in 2014. As described in Section 4, Biological Resources, grazing is being conducted to improve and maintain habitat for special status species such as the federally-endangered San Joaquin kit fox.

As defined in State CEQA Guidelines Section 15355, a cumulative impact is created as a result of the combination of the project together with other projects causing related impacts. More specifically, a

cumulative impact occurs from:

...the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

The “...closely related projects...” to be considered for cumulative impacts consist of grazing activities on public lands in the vicinity of the CPER managed by the Department of Interior Bureau of Land Management and the US Forest Service. These lands include grazing leases on lands that are adjacent to the CPER which include:

- The area governed by the grazing permit issued by the US Forest Service for the Chimineas and Gifford Allotments (see Figure 14). And,
- The area governed by the grazing lease issued for the North Chimineas Allotment by the Bureau of land Management (Figure 15).

Grazing On Lands Managed By The US Forest Service

In September, 2005 the US Forest Service adopted a Land Management Plan for the Los Padres National Forest (LMPLPNF) which adjoins the CPER to the west. The *Final Environmental Impact Statement for the Land Management Plan for the Southern California National Forests* (including the Los Padres) focuses on the cumulative effect of forest management activities on biological resources within the forests. According to the FEIS, implementing the actions described in the Plan — especially land use zones, standards, other design criteria, Best Management Practices, and monitoring—would limit the extent, intensity and timing of negative environmental effects and could result in a high likelihood of maintaining the presence and viability of the biological resources on the southern California national forests, including the Los Padres National Forest. Nevertheless, the FEIS concludes that some adverse effects are unavoidable.

The LMPLPNF recommends using an adaptive mitigation approach focusing not only on developed sites, but on dispersed recreation uses as well. This additional emphasis would be beneficial to the protection of biodiversity as demand for use of National Forest System lands increases, especially around the boundaries adjacent to urban development. However, the LMPLPNF is expected to result in less than cumulatively considerable impacts with respect to at-risk plant species within the National Forests (Final EIS, page 401). In addition, the LMPLPNF is expected to result in less than cumulatively considerable adverse impacts with respect to at-risk invertebrate animal species within the National Forests (Final EIS, page 403). Table 11 provides a summary of the potential likelihood of improved habitat for these species as result of implementation of the LMPLPNF.

Table 11 suggests that the management strategies recommended by the Forest LMP will have a generally beneficial impact on habitat conditions for the management indicator species. It should be noted that only four of the indicator species (mule deer, mountain lion, song sparrow, and blue oak) occur in the Los Padres National Forest surrounding the CPER and the Premises. Nonetheless, the analysis suggests a generally positive cumulative impact on these species.

According to the FEIS, through implementation of actions described in the Forest LMP and consideration of all the impacts off the national forests, the general habitat quality trend on National Forest System lands is likely to be stable in the long term. Planning area-wide, most species and their associated habitats will remain within expected ranges of variability under current climatic conditions on the national forests. Species-at-risk with a majority of their habitat on private land would most likely decline substantially at

the current rate of land development, which could result in substantial population effects on National Forest System lands.

Table 11 -- Likelihood of Improved Habitat Conditions for Management Indicator Species In Southern California National Forests		
Habitat Condition	Management Indicator Species	Likelihood of Improved Habitat
Ecosystem health	Mule deer	H
Fragmentation	Mountain lion	M
Aquatic Habitat	Arroyo toad	M
Riparian Habitat	Song sparrow	M
Oak Regeneration	Blue oak	L
Oak Regeneration	Englemann oak	L
Stand Health	Bigcone Douglas fir	L
Stand Regeneration	Coulter pine	M
Montane Conifer Forest	California spotted owl	M
Montane Conifer Forest	California black oak	M
Montane Conifer Forest	White fir	M
<p>Source: US Forest Service, Final Environmental Impact Statement for the Southern California National Forests , 2005</p> <p>http://www.fs.fed.us/r5/scfpr/projects/Imp/docs/feis-v1.pdf</p> <p>L = Low M = Moderate H = High</p>		

All decisions within the Forest (including the approval of grazing leases) must be consistent with the Forest LMP. It is Forest Service policy (FSM 2203.1) to make forage available to qualified livestock operators from lands that are suitable for livestock grazing consistent with the Land Management Plan for the Los Padres National Forest. As stated in the FLMP, the desired condition for rangeland management is that livestock grazing opportunities are maintained and managed for sustainable, healthy rangelands that contribute to improving watershed conditions towards a fully functional and productive condition.

The management of grazing on Forest Service lands is governed by grazing permits issued by the US Forest Service. The Rescission Act of 1995 (PL 104-19, Section 504) addresses compliance with the National Environmental Policy Act (NEPA) for all grazing allotments in the Los Padres National Forest, as follows:

SEC. 504. (a) SCHEDULE FOR NEPA COMPLIANCE.--Each National Forest System unit shall establish and adhere to a schedule for the completion of National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) analysis and decisions on all allotments within the

National Forest System unit for which NEPA analysis is needed. The schedule shall provide that not more than 20 percent of the allotments shall undergo NEPA analysis and decisions through fiscal year 1996.

(b) REISSUANCE PENDING NEPA COMPLIANCE.--Notwithstanding any other law, term grazing permits which expire or are waived before the NEPA analysis and decision pursuant to the schedule developed by individual Forest Service System units, shall be issued on the same terms and conditions and for the full term of the expired or waived permit. Upon completion of the scheduled NEPA analysis and decision for the allotment, the terms and conditions of existing grazing permits may be modified or re-issued, if necessary to conform to such NEPA analysis.

(c) EXPIRED PERMITS.--This section shall only apply if a new term grazing permit has not been issued to replace an expired or waived term grazing permit solely because the analysis required by NEPA and other applicable laws has not been completed and also shall include permits that expired or were waived in 1994 and 1995 before the date of enactment of this Act.

The Rescission Act of 1995 (Public Law 104-19). Section 504(a) requires each National Forest System unit to identify all allotments for which NEPA analysis is needed. These allotments must be included in a schedule that sets a due date for the completion of the requisite NEPA analysis. Section 504(a) requires adherence to these established schedules. The schedule may not require the completion of NEPA analysis for more than 20% of the listed allotments prior to October 1, 1996.

Sections 504(b) and (c) state that if a grazing permit expires or is waived and the permit authorizes grazing in one or more listed allotments for which the scheduled NEPA analysis has yet to be completed, the Forest Service must issue a new term grazing permit upon the same terms and conditions, including the length of term, as the one which expired or was waived, unless there are reasons other than the lack of the necessary NEPA analysis which justify not issuing a new permit.

These provisions do not alter the line officer's authority to make a decision not to issue a new permit for reasons other than not having completed the analysis required by NEPA and other applicable laws. Exhibit 01 contains questions and answers on implementing the Rescission Act of 1995.

In July, 2009 the USFS issued a grazing permit for the Chimineas and Gifford Allotments which cover about 12,000 acres (see Figure 14). The permit is effective to December 31, 2018 and covers both allotments. The permit authorizes the grazing of a total of 308 cow-calf pairs on each allotment between February 1 and June 15 of each year and includes restrictions and standards for grazing activities designed to maintain range health in accordance with adopted management policies of the Forest Service. More specifically:

S56: Livestock Grazing Utilization Standards: Retain the following: average amounts of residual dry matter (RDM) until the onset of the rainy season; percent utilization; and percent streambank alteration on grazed rangelands. Precipitation is based on long-term averages. Streambank alteration is defined as alteration and displacement of rooted plants and physical soil structure by livestock per stream reach in wet montane meadows and Rosgen C3 channels. Percent woody browse is based on current year's growth of shrubs, unless required to meet other vegetation management objectives. Livestock will be moved from grazing units

when thresholds are met as determined by established protocols (see table 12, Livestock Utilization Standards).

Allotment Management Plan. Allotment Management Plan. The existing allotment Management Plan for the Chimineas Allotment is dated 09/05/1962 and the Management Plan for the Gifford Allotment is dated 04/17/1961. The special conditions described in this permit have been taken from them, previous permits, annual operating instructions, file correspondence and the Land Management Plan.

Suspension & Cancellation Guidelines. The Regional Forester's Grazing Permit Administration, Suspension & Cancellation Guidelines (R5 FSM 2231.62, 2002) will be used to provide a consistent and fair approach for permit administration action when the permittee is in noncompliance with the terms and conditions of this permit. Pesticide Use. Chemical materials (pesticides) may not be used on National Forest lands without authorization .

Noxious Weeds. Noxious weeds should be monitored and reported to the Forest Service. Efforts should be made to prevent introduction and/or minimize the spread of noxious weeds.

Forest Land Management Plan Standards. The Los Padres NF Land Management Plan (LMP) contains standards applicable to this permit. All standards in the plan are to be implemented when applicable. This permit may be modified at any time to include a standard from the LMP. The following standards have been identified as applicable:

S52: Soil Cover: Maintain an effective soil cover of 60 percent to provide for soil protection, water infiltration, and reduce the risk of accelerated soil erosion within designated livestock grazing areas. Soil cover includes: living vegetation (grasses, forbs, and prostrate plants); plant litter; and surface rock fragments greater than 3/4 inch.

S53: Salt and Mineral Locations: Salt and/or other supplements will be located greater than ¼ mile from all water sources including: ponds; riparian areas; meadows; springs; seeps; vernal pools; susceptible threatened, endangered, proposed, candidate and sensitive species and habitats; livestock and wildlife water developments; concentrated and developed recreation areas; and other sensitive areas including sensitive heritage resources, unless approved by the responsible Forest.

S54: Burned Areas: After a wildland fire, prior to initiating grazing, a site-specific analysis will be performed for designated livestock areas to determine the level and location(s) of livestock use, if any.

As outlined above, the Forest Service is required to develop and implement decisions on re-issuing term grazing permits in accordance with the National Environmental Policy Act (NEPA) for all grazing allotments within the Los Padres National Forest. As of August, 2011, the Forest has established a schedule for NEPA compliance and is proceeding to prepare NEPA compliance documents for the grazing allotments². However, as of August 2011, NEPA compliance for the grazing allotments that adjoin the CPER has not been completed. In accordance with item b. of the Rescission Act, above, grazing activities may be permitted pending completion of NEPA compliance and subject to the same terms and conditions in effect prior to expiration of the previous permit. As described under item b., above, the terms and conditions of the lease permit may be amended following completion of NEPA compliance. Until that time, grazing may continue under the terms of the current permit.

² Gary Montgomery, Forest Range Specialist, personal communication, August 1, 2011.

Table 12 -- Livestock Utilization Standards for the Chimineas and Gifford Allotments

Location	Habitat Grouping	RDM (lbs/acre)	Woody Browse % Allowable Use	Perennial Grass and Grass-Like Plants %Allowable Use	Streambank Alteration by Livestock % Allowable Use
LBV/SWWF Occupied Habitat	Nesting Season	. No Grazing During Occupancy			
	Suitable Habitat Non-Nesting Season/No Occupancy	N/A	35	35	≤ 10
Riparian Areas	N/A	N/A	40	35	≤ 20
Wet Montane Meadows	N/A	N/A	40	4"- 6" Stubble Height (based on condition)	≤ 20
Uplands	Annual grasslands and oak woodlands with ≥ 10 inches annual precipitation	700	40 (20 - On advanced oak tree regeneration)	50	N/A
	Annual grasslands and oak woodlands with ≤ 10 inches annual precipitation	400			
	Annual grassland/pinyon	200-400	40	50	
	Mixed conifer forests	600			
	Chaparral/desert scrub	200-400			
WUI/Fuelbreaks	N/A	600	N/A	N/A	N/A

Grazing on Land Managed By the Bureau of Land Management

Carrizo Plain National Monument

The Carrizo Plain National Monument (CPNM) consists of 246,817 acres stretching from Soda Lake on the north to State Route 166 to the south. In April, 2010, the Department of Interior, Bureau of Land Management (BLM) adopted a Final Environmental Impact Statement (FEIS) and approved a Resource Management Plan (RMP) for the CPNM.

The RMP for the Carrizo Plain National Monument was adopted in April, 2010 and sets forth a

management structure for the CPNM which includes the use of an adaptive management and monitoring process as well as management strategies that emphasize vegetation/habitat management through livestock grazing and fire management. The RMP contains objectives for management outcomes or “desired future conditions” of the various resources in the Monument and lists a suite of initial actions that will be taken in an effort to restore and manage ecosystems to meet the RMP objectives. Some of these actions are listed in the plan itself, while others are contained in a Conservation Target Table. Monitoring is an important component of RMP implementation and will be used to gauge the effectiveness of actions at achieving objectives.

The FEIS identified moderate benefits on habitat structure from livestock grazing as a vegetation management tool by expanding the amount of suitable habitat, and enlarging the effective size of the core areas when such management might be critical to maintaining viable populations of sensitive species on the Monument.

Caliente Resource Management Plan

In 1997 the Bureau of Land Management (BLM) adopted the Caliente Resource Area Resource Management Plan (CRARMP). The CRARMP encompasses a geographic area that includes 13.8 million acres of land in central California. The Caliente Resource Management Plan will guide management of the approximately 590,000 acres of public land and an additional 450,000 acres of Federal reserved mineral estate (split estate) within the geographic area, including rocks and islands along the California coast of Ventura, Santa Barbara and San Luis Obispo Counties.

The Caliente Resource Area includes portions of Kern, Kings, San Luis Obispo, Santa Barbara, Tulare, and Ventura Counties. The larger blocks of public land lie in the Carrizo Plain of eastern San Luis Obispo County, in the Lake Isabella - Walker Pass regions of Kern & Tulare Counties and in the Chimney Peak and Three Rivers regions of Tulare County.

The planning area has been divided into three separate management areas: Coast, Valley and South Sierra. The Coast Management Area includes lands in the vicinity of the CPER, including 20,400 acres of public land in San Luis Obispo, Santa Barbara, and Ventura Counties. Most of the public land, including the largest parcels, are in mountainous terrain between Nacimiento and Twitchell reservoirs. Public lands contain several sensitive plant species and habitats. The Sespe area includes some concentrated oil and gas development, although there are few public lands in the area. According to the CRARMP, the California condor is the only federally listed threatened or endangered species known from public lands in the area.

The objectives of the Plan for the Coast Management Area include:

- Increase management levels to enhance awareness of resource conditions and values in a landscape setting. Focus management on natural resource condition and health, particularly unique vegetative communities, riparian resources, landmark and coastal values.
- Integrate management objectives with those of local county governments, coastal commission, state agencies and other federal agencies to contribute to regional conservation efforts.
- Increase cooperation with management partners to integrate the isolated parcels with other natural resource and open space management programs.

Approximately 6,100 of the 20,400 acres of public land in the Coast Management Area would be available for application for livestock grazing. Of this figure, 4,000 acres lie within existing allotments, and 2,100 acres are currently unallotted. The remainder of the Management Area, approximately 14,300 acres, would be classified as unavailable for livestock grazing. Authorizations will only be made on lands

available for grazing. The following criteria are used to identify lands unavailable for grazing:

- Unallotted lands which have known sensitive resource concerns would be considered closed to new grazing authorizations.
- Unallotted lands which are inaccessible to livestock due to heavy brush, steep slopes, rough terrain, or are too far from water sources are considered unsuitable for new grazing authorizations.

Livestock grazing would continue to be authorized on about 4,000 acres of public land in seven allotments.

New grazing applications may be authorized if residual impacts to sensitive resources are not significant. Applications for new grazing allotments would be evaluated on a case-by-case basis following the criteria listed in RMP, Chapter 6. Mulch, utilization and seasonal use restrictions would be consistent with guidelines used for existing allotments. BLM is currently revising the Resource Management Plan to address several new concerns. As of July, 2011, a draft of the revised RMP and environmental documentation are not available.

BLM administers grazing allotments on lands adjoining the CPER and the premises and within the area governed by the Caliente Resource Management Plan. In August, 2010, BLM adopted a Finding of No Significant Impact (environmental assessment, #C060-2010-0177-EA) in accordance with the National Environmental Policy Act (NEPA) and approved a grazing lease for the North Chimineas Allotment consisting of 3,949 acres adjoining the CPER to the west (see Figure 15). The lease authorizes managed grazing of 155 cattle from July, 2011 to November 2011 subject to a number of conditions, including (but not limited to) the following that speak to the issue of rangeland health and consistency with previously adopted standards which are summarized below, along with a reference to the corresponding section of the CRARMP from which the standard is derived:

C. Allotment Specific Terms and Conditions supporting Rangeland Health or the Land Use Plan

1. Livestock will only be allowed to utilize public lands within this allotment(s) during the authorized period of use and when at least 500 lbs./acre of annual residual dry matter is present and 2" of green growth has occurred on annual plants, or when at least 700 lbs./acre of annual residual dry matter is present when green growth is not yet present on annual plants. (Caliente RMP page 54)
2. The Permittee or Lessee will remove livestock from public lands within this allotment(s) prior to reaching a minimum level of 500 lbs./acre of residual dry matter, regardless of calendar date. (Caliente RMP page 54)
3. Maximum perennial plant utilization of species such as *Atriplex spp.* and *Poa secunda* will be 25% to 40% of current annual growth (Guideline 5; Table A; 4-10 inches precipitation, California annual grasslands: Central California's Standards for Rangeland Health and Guidelines for Livestock Grazing Management ROD approved July 13, 2000) or meets comparable form class, foliage density and reproductive uniformity criteria for *Atriplex spp.* (Caliente RMP page 54)

Figure 14 – Grazing Allotments of the Los Padres National Forest that Adjoin the CPER

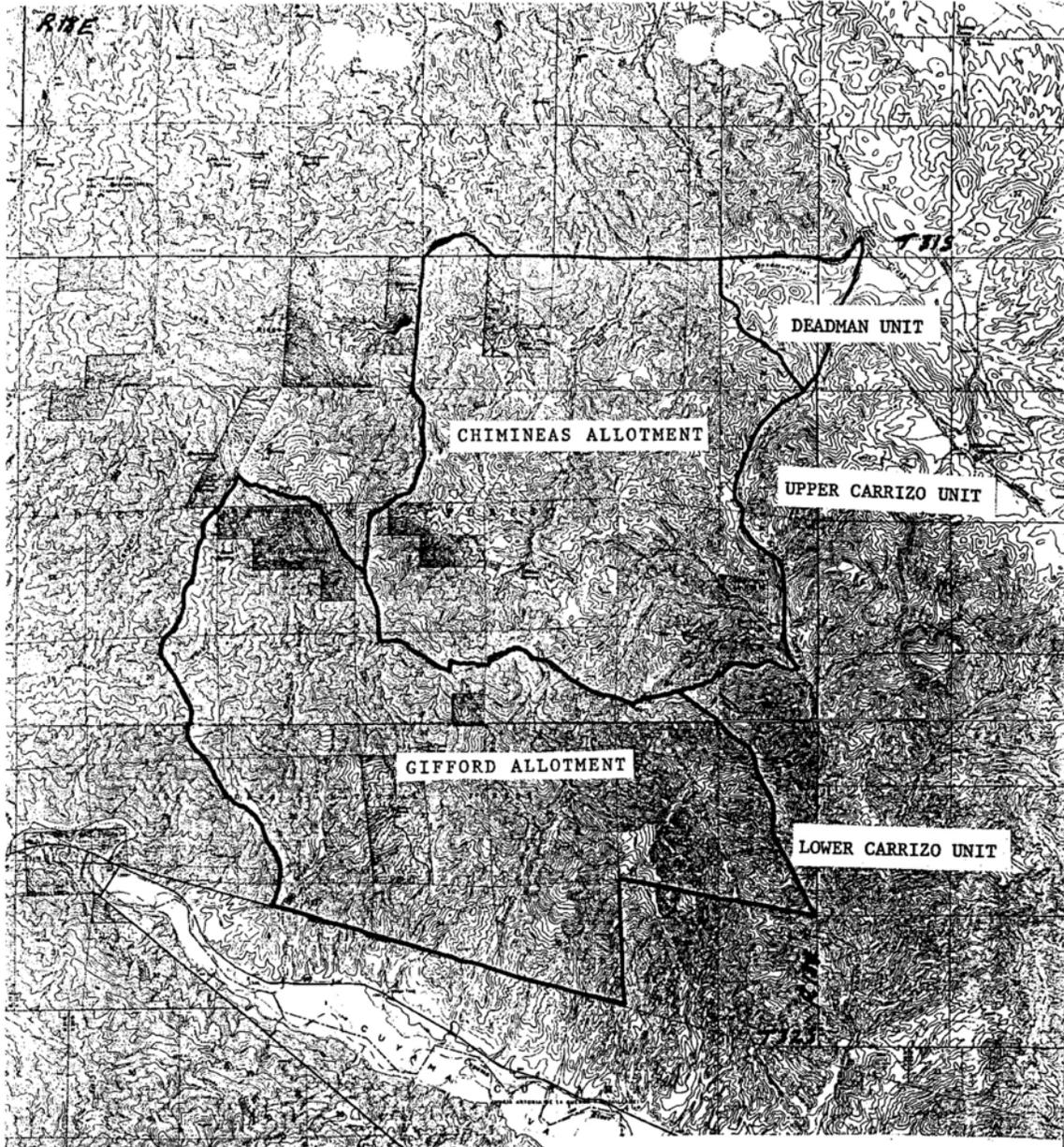
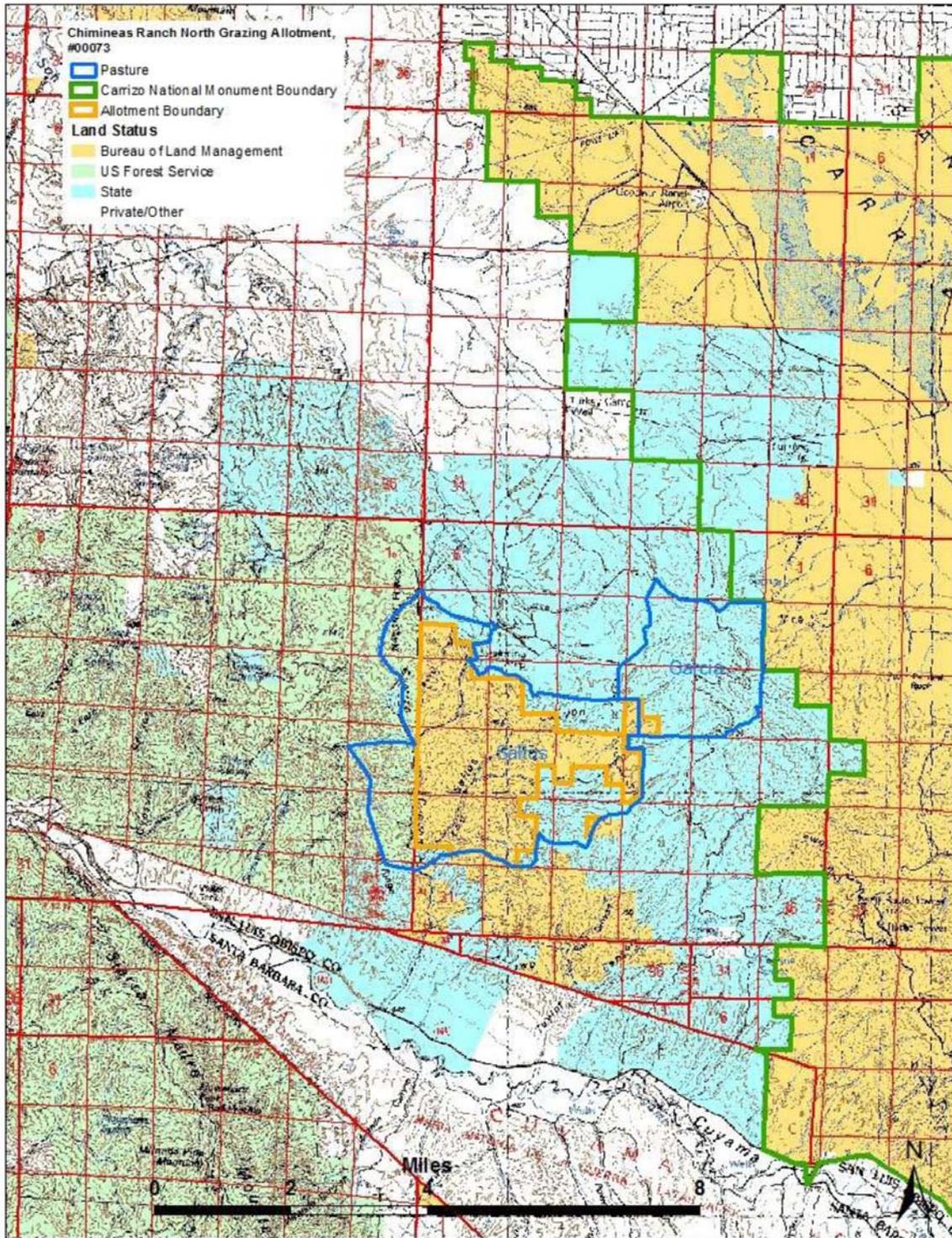


Figure 15 – General Location of the Chimineas Ranch North Grazing Allotment of the Bureau of Land Management



Conclusion

Cumulative impacts associated with execution of the draft Lease Agreement will be less than cumulatively considerable because:

- Standards for resource protection (residual dry matter and biomass) included in the draft Lease Agreement and mitigation measures recommended in the topical sections of this MND will reduce project-specific impacts to a less than significant level.
- As discussed in the Project Description and in Section 4., Biological Resources, the draft Lease Agreement authorizes a lower number of livestock on the Premises than is currently allowed. Between 460 and 590 (average 536) cattle have utilized the property under prior leases. The draft Lease Agreement allows a base herd of 350 head of livestock (assuming federal grazing leases remain in good standing) and a maximum of 450 head of livestock to be on the Premises at any given time, which is 17 to 45 percent less than the to baseline (existing) environmental conditions.
- The draft Lease Agreement authorizes grazing for a three-year period, only, during which the grazing premises will be monitored and subject to mandatory remediation requirements in the event the standards are not satisfied. The cumulative impact of managed grazing in accordance with the terms, standards and conditions of the draft Lease Agreement on special-status species during a three year period will be indistinguishable from those associated with the natural variability of conditions from year to year, such as rainfall and temperature.
- Grazing on public lands surrounding the CPER are subject to the grazing management standards in the following adopted plans and environmental compliance documents:
 - The grazing management standards of the Land Management Plan for the Los Padres National Forest;
 - The requirements of grazing leases issued for properties adjoining the CPER and the Premises;
 - The grazing management standards provided in the Resource Management Plan for the Carrizo Plain National Monument; and
 - The mitigation measures adopted as part of environmental assessment #C060-2010-0177-EA.

Continued enforcement of the standards, mitigation measures and other requirements of these documents will ensure that cumulative impacts associated with the draft Lease Agreement together with the impacts of grazing on lands managed by other public agencies will remain less than cumulatively considerable.

c) The preceding analysis concludes that execution of the draft Lease Agreement would not result in environmental effects that would cause substantial adverse effects on human beings.

Mitigation Measures Recommended to Be Incorporated Into The Project

BIO-1 Grazing activities shall be avoided during the flowering/fruitletting period (generally March through

June) in management units where the following species have the potential to occur:

Common Name	Scientific Name
La Panza mariposa lily	<i>Calochortus simulans</i>
Round-leaf filaree	<i>California macrophylla</i>
Showy madia	<i>Madia radiata</i>
Umbrella larkspur	<i>Delphinium umbracolorum</i>

CR-1 The development of any new cattle support facilities (troughs, corrals, etc.) shall be preceded by additional Phase I surveys.

- a. If a cultural site is located, implement a Phase 2 testing plan to determine if the site is eligible for listing in the California Register.
- b. If the site is determined to be eligible for listing in the California Register, either (1) relocate the support facility to an area free of significant cultural resources, or (2) design and implement an appropriate data recovery plan (Phase 3).

CR-2 Prior to improvements at the Garcia Corrals, implement the following:

- a. Conduct additional Phase I survey within the corrals after reducing the height of the vegetation or during fence improvements (to examine backsoil from fence posthole digging).
- b. If a cultural site is located, implement a Phase 2 testing plan to determine if the site is eligible for listing in the California Register.
- c. If the site is determined to be eligible for listing in the California Register, either (1) relocate the support facility to an area free of significant cultural resources, or (2) design and implement an appropriate data recovery plan (Phase 3).

AQ-1 To minimize the generation of particulate matter associated with motor vehicles on unpaved roads serving the Lease Premises, motor vehicle speeds on un-paved roads shall be limited to 15 miles per hour or less.

AQ-2 All activities associated the draft Lease Agreement shall be subject to the provisions of San Luis Obispo County Air Pollution Control District Rule 402 (Nuisance).

REFERENCES

California Department of Toxic Substances Control, Envirostor, Site Mitigation and Brownfields Reuse Program EnviroStor database , May, 2011, <http://www.envirostor.dtsc.ca.gov/public/map.asp>

California Health & Safety Code Division 26, Part 3, Chapter 10, Section 40918 and the CARB Carl Moyer Guidelines for DPM.

Caltrans traffic counts for State Highways, 2008

San Luis Obispo Air Pollution Control District, CEQA Air Quality Handbook, December, 2009.

San Luis Obispo County General Plan, Shandon-Carrizo Area Plan, 2003

San Luis Obispo County Department of Public Works, Traffic Counts, August 2008, http://www.slocounty.ca.gov/PW/Traffic/Traffic_Counts.htm

URBEMIS v. 9.4.1

US Department of Agriculture, Natural Resources Conservation Service, Soil Survey of San Luis Obispo County Carrizo Plain Area, Table 16

Wood Rogers, 2010, Table C.14-1, Final Environmental Impact Report for the Topaz Solar Project

Literature Cited

ARCTOS. 2011. Database search for *Perognathus inornatus neglectus* . <http://arctos.database.museum/> (Accessed: May 24, 2011)

Bat Conservation International. 2002. *Eumops perotis*: Greater bonneted bat. Available: <http://batcon.org/discover/species/eperotis.html>. (Accessed: May 24, 2011).

Beedy, E. C., and Hamilton, W. J., III. 1997. Tricolored Blackbird status update and management guidelines. Prepared for U.S. Fish & Wildl. Serv., Migratory Birds and Habitat Program, Portland, OR, and Calif. Dept. Fish & Game, Bird and Mammal Conserv. Program, Sacramento.

Bean, W.T., R. Stafford, S. Butterfield, L. Prugh, L. Saslaw, and J. Brashares. 2010. Towards an easy and inexpensive method for monitoring giant kangaroo rats in Carrizo Plain National Monument. San Joaquin Valley Natural Communities Conference, Bakersfield, CA (paper).

Bent, A. C. 1961. Life histories of North American birds of prey, part 2. Dover Publications, Inc., New York, New York. 482 pages.

Bolster, B.C., editor. 1998. Terrestrial Mammal Species of Special Concern in California. Draft Final Report prepared by P.V. Brylski, P.W. Collins, E.D. Pierson, W.E. Rainey and T.E. Kucera. Report submitted to California Department of Fish and Game Wildlife Management Division, Nongame Bird and Mammal Conservation Program for Contract No.FG3146WM.

Browning, B. M. 1959. An ecological study of the food habits of the mourning dove. Calif. Fish and Game 45:313-331.

- Browning, B. M. 1962. Food habits of the mourning dove in California. Calif. Fish and Game 48:91-115.
- California Department of Fish and Game (CDFG). 2011a. Species accounts – birds. http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/docs/2004/t_e_birds.pdf
- California Department of Fish and Game (CDFG). 2011b. Special animals list (898 taxa): January 2011.
- Dechant, J. A., M. L. Sondreal, D. H. Johnson, L. D. Igl, C. M. Goldade, P. A. Rabie, and B. R. Euliss. 1999 (revised 2002). Effects of management practices on grassland birds: Burrowing Owl. Northern Prairie Wildlife Research Center, Jamestown, ND. 33 pages.
- Devries, P. 2011. Results of the 2011 Kern mallow surveys on the Carrizo Plain. Unpublished report to the U.S. Bureau of Land Management. 13pp.
- Duncan, D. 1968. Food of California quail on burned and unburned central California foothill rangeland. Calif. Fish and Game 54 (2): 123-127.
- Duncan, D. 1976. Frequent Mowing Increases Turkey Mullein on California Foothill Rangeland. Calif. Fish and Game 62(1):82-84.
- Edell, T. 2002. The birds of San Luis Obispo county California. Updated 2002. Morro Coast Audubon Society.
- Germano, D. 2011. Western pond turtle trapping at Chimineas 2005, 2006, 2009, 2011. Report of activities to Dept. of Fish and Game. 5pp.
- Germano, D. J., G. B. Rathbun, and L. R. Saslaw. 2001. Managing exotic grasses and conserving declining species. Wildlife Society Bulletin 29:551-559.
- Gillespie, I.G. and Allen, E.D. 2004. Fire and competition in a southern California grassland: Impacts on the rare forb *Erodium macrophyllum*. Journal of Applied Ecology. 41: 643-652.
- Gillespie, I.G. 2003. Ecology and restoration of *Erodium macrophyllum*. Ph.D Dissertation. University of California, Riverside. Riverside, California.
- Grant, R. A. 1963. A colony of Burrowing Owls at Watford City, North Dakota. South Dakota Bird Notes 15:92.
- Grant, R. A. 1965. The Burrowing Owl in Minnesota. Loon 37:2-17.
- Green, G. A., and R. G. Anthony. 1997. Ecological considerations for management of breeding Burrowing Owls in the Columbia Basin. Pages 117-121 in J. L. Lincer and K. Steenhof, editors. The Burrowing Owl, its biology and management: including the Proceedings of the First International Symposium. Raptor Research Report Number 9.
- Grinnell, J., and Miller, A. H. 1944. The distribution of the birds of California. Pac. Coast Avifauna 27.
- Hamilton, W. J. 2004. Tricolored Blackbird (*Agelaius tricolor*). In The Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in

California. California Partners in Flight. http://www.prbo.org/calpif/html/docs/riparian_v-2.html

- Haug, E. A. 1985. Observations on the breeding ecology of Burrowing Owls in Saskatchewan. M.S. thesis. University of Saskatchewan, Saskatoon, Saskatchewan. 89 pp.
- Haug, E., and L. W. Oliphant. 1990. Movements, activity patterns, and habitat use of Burrowing Owls in Saskatchewan. *Journal of Wildlife Management* 54:27-35.
- James, T. R., and R. W. Seabloom. 1968. Notes on the burrow ecology and food habits of the Burrowing Owl in southwestern North Dakota. *Blue Jay* 26:83-84.
- Jennings, M. R., and M. P. Hayes. 1994. Amphibian and reptile species of special concern in California. California Department of Fish and Game, Sacramento, CA.
- Marty, J. 2004. Managing for diversity in California vernal pool grasslands. Presentation Abstracts. Ecology and Management of California Grasslands. April 2–3, 2004, University of California at Berkeley.
- Marty, J. 2005. Effects of cattle grazing on diversity in ephemeral wetlands. *Conservation Biology* 19(5):1626-1632.
- MacCracken, J. G., D. W. Uresk, and R. M. Hansen. 1985. Vegetation and soils of Burrowing Owl nest sites in Conata Basin, South Dakota. *Condor* 87:152-154.
- Mensing, S. 1992. The impact of European settlement on blue oak (*Quercus douglasii*) regeneration and recruitment in the Tehachapi Mountains, California. *Madrono*. Vol. 39, no. 1, pp. 36-46.
- Montanucci RR (2004) Geographic variation in *Phrynosoma coronatum* (Lacertilia, Phrynosomatidae): further evidence for a peninsular archipelago. *Herpetologica* 60:117-139 .
- Morey, S. R. 2005. *Spea hammondi*, western spadefoot. In M. J. Lannoo (ed.), Amphibian Declines: The Conservation Status of United States Species, pp. 514–517. University of California Press, Berkeley.
- Nyswonger, Ross. Chimineas Ranch Foreman 1992-2011. Personal communication.
- Pandolfino, Ed., Ph.D. Vice-president Western Field Ornithologists. Personal communication May 11, 2011.
- Pandolfino, E, M. Herzog, S. Hooper, and Z. Smith. In press. Winter habitat associations of diurnal raptors in California's Central Valley. *Western Birds* 42(2)____.
- Patton, J., D. Huckaby, and S. Álvarez-Castañeda. 2008. The Evolutionary History and a Systematic Revision of Woodrats of the Neotoma lepida Group. University of California Press. Berkeley, CA. 474 pp.
- Pierson, E. D., and W. E. Rainey. 1998. Pallid bat, *Antrozous pallidus*. In Terrestrial Mammal Species of Special Concern in California, Bolster, B. C., editor. Draft Bird and Mammal Conservation Program Report No. 98-14, California Department of Fish and Game.

- Prugh, L. and J. Brashares. 2010. Carrizo Plain ecosystem project; 2010 report. Prepared for agency partners. 23 pp.
- Pyke, C. and J. Marty. 2005. Cattle grazing mediates climate change impacts on ephemeral wetlands. *Conservation Biology* 19(5): 1619-1625.
- Ronan, N. 2002. Habitat Selection, Reproductive Success, and Site Fidelity of Burrowing Owls in a Grassland Ecosystem. MS thesis. Oregon State University, Corvallis, OR. 68pp.
- Salt, W. R., and A. L. Wilk. 1958. The birds of Alberta. Department of Economic Affairs, Edmonton, Alberta. 295 pages.
- Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. *Studies of Western Birds* 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Spinks, P. Q., & Shaffer, H. B. (2005). Range-wide molecular analysis of the western pond turtle (*Emys marmorata*): cryptic variation, isolation by distance, and their conservation implications. *Molecular Ecology*, 14(7), 2047-2064.
- Stafford, Robert. Associate Biologist/Area Manager 1998-2011, California Dept. of Fish and Game. Personal communication.
- Stebbins RC . 1985. A field guide to western amphibians and reptiles. Peterson Field Guide Series. New York: Houghton Mifflin Co.
- Stewart, R. E. 1975. Breeding birds of North Dakota. Tri-College Center for Environmental Studies, Fargo, North Dakota. 295 pages.
- Sweet, Sam.. Professor. Evolution, Ecology, and Marine Biology. University of California, Santa Barbara.
- Sugihara, N. , J. van Wagtenonk, J. Fites-Kaufman, K. Shaffer and A. Thode, (eds.). 2006. Fire in California ecosystems. University of California Press, Berkeley, CA. 612pp.
- Swiecki T. and E. Bernhardt. 1998. Understanding blue oak regeneration. *Fremontia* 26 (1): 19-26.
- Tricolored Blackbird Working Group. 2009. Conservation plan for the tricolored blackbird (*Agelaius tricolor*). 2.0 update. Susan Kester (ed.). Sustainable Conservation. San Francisco, CA.
- Trapp, G. 1978. Comparative behavioral ecology of ringtail and gray fox in southwestern Utah. *Carnivore* 1:3-32.
- U.S. Fish and Wildlife Service (USFWS). 1998. Recovery plan for upland species of the San Joaquin Valley, California. Region 1, Portland, Oregon. 319 pp.
- U.S. Fish and Wildlife Service (USFWS). 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, Oregon. xxvi + 606 pages.

- U.S. Fish and Wildlife Service (UFWFS). 2007. Longhorn fairy shrimp (*Branchinecta longiantenna*) five year review: summary and evaluation. 27pp.
- Verner, J. 1980. Bird communities of mixed-conifer forests of the Sierra Nevada, in Management of western forests and grasslands for nongame birds (R. M. DeGraff, tech. coord.), pp. 198–223. Gen. Tech. Rep. INT-86, U.S. Forest Serv., Intermountain Forest and Range Exp. Station, Ogden, UT.
- Warrick, G. D., and B. L. Cypher. 1998. Factors affecting the spatial distribution of a kit fox population. *Journal of Wildlife Management* 62:707-717.
- Wedgwood, J. A. 1976. Burrowing Owl in south-central Saskatchewan. *Blue Jay* 34:26-44.
- Weller, T. 2005. Species accounts: fringed myotis (*Myotis thysanoides*). Western Bat Working Group. www.wbwg.org.
- Williams, D. F. 1986. Mammalian species of special concern in California. Calif. Dept. Fish and Game, Sacramento. Admin. Rep. 86-1. 112pp.
- Williams, D. F., H. H. Genoways, and J. K. Braun. 1993. Taxonomy. Pp. 38-196, *In: Biology of the Heteromyidae* (H. H. Genoways and J. H. Brown, eds.). Special Publ., Amer. Soc. Mammal., 10, 1-719 pp.

RESPONSES TO COMMENTS

This section provides the Department of Fish and Game's (Department's) responses to comments received during the public review period of the Draft Initial Study and Negative Declaration (IS/ND) for the Draft Lease Agreement.

Exhibit A – Draft Lease Agreement

GRAZING LEASE AGREEMENT

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND GAME

CARRIZO PLAIN ECOLOGICAL RESERVE
CHIMINEAS UNIT
NORTH CHIMINEAS RANCH ADDITION (PORTION)

LEASE NO.: CP2005-01-R4

THIS GRAZING LEASE AGREEMENT ("Lease") is entered into as of the 14 day of October, 2011 by and between the State of California, acting by and through its Department of Fish and Game (the "Department") and Neal Dow, an individual ("Lessee"), who agree as follows:

- 1. Lease; Premises:** The Department hereby leases to Lessee, and Lessee hereby leases from the Department, upon the terms, covenants and conditions set forth in this Lease, that certain real property situated in San Luis Obispo County, California, consisting of approximately 13,500 acres (the "Premises") within the approximately 31,000-acre Chimineas Unit of the Carrizo Plain Ecological Reserve (the "Reserve Property"). The Premises are generally delineated on the map of the Reserve Property which is attached to this Lease as Figure 1. The Premises include the Ranch Manager's House as well as the shop, shed, and horse barns shown on Figure 2. However, the following areas are specifically *excluded* from the Premises: (a) the Main Ranch Complex shown on Figure 2; (b) any areas reserved by the Department pursuant to Section 4, below; (c) the following management units of the Reserve Property previously held in the Conservation Reserve Program (approximately 3,000-acres) - CRP North, CRP South, and CRP landing field management units; (d) the fenced in portions of the following riparian management units - Barrett Creek, San Juan Creek, Broken Dam, Taylor Pond, and Gillam Spring; and (e) those portions of the following management units where fencing excludes livestock from existing federal leases (Gillam, Taylor, East Grantline, and West Grantline). The Department is entering into this Lease pursuant to California Fish and Game Code Section 1010.
- 2. Resource Protection; Lease Purposes:** The primary purpose of the Department's ownership and operation of the Reserve Property, including the Premises, is for wildlife conservation purposes. Specific resources to be conserved are grasslands, blue oak and juniper woodlands, tule elk, and numerous sensitive, threatened, or endangered species including burrowing owl and San Joaquin kit fox. Lessee agrees that his use of the Premises must be compatible with the maintenance and enhancement of the biological resources of the Reserve Property. Without limiting the previous sentence, Lessee agrees that neither he

nor anyone acting on his behalf or under or pursuant to his direction or control shall commit waste or damage to the biological resources, including wildlife and wildlife habitat, on the Premises.

The secondary purposes of this Lease are to provide: 1) maintenance of existing facilities on the Chimineas Unit; 2) site security for the 31,000 acre Reserve Property (collectively the Reserve Property and facilities on it are valued at approximately \$13.5 million); 3) managed grazing consistent with past practices on the Premises; and 4) a single grazing operator common to both the Premises and adjacent, unfenced, federal lands, which Lessee grazes pursuant to U.S. Forest Service Term Grazing Lease #3DOCH and U.S. Bureau of Land Management Grazing Lease #GR 0400060.

3. **Lease Term; Holding Over:** The term of the Lease shall be for three years commencing on **October 14, 2011** and ending on **October 13, 2014** ("Original Term"), unless extended or sooner terminated in accordance with its terms. Following compliance with relevant provisions of the California Environmental Quality Act, the term of the Lease may be extended for an additional three-year period following expiration of the Original Term upon mutual agreement of the Department and Lessee, and written notice of extension by the Department, on or before **October 13, 2014**. Any holding over after the expiration of the Original Term or any extension thereof, with the written consent of the Department expressed or implied, shall be deemed a tenancy only from month-to-month and shall otherwise be on the terms and conditions of this Lease.
4. **Exclusions from Premises:** Except as provided in sections 5 and 6, the Department reserves the right to exclude from the Premises, one or more areas not to exceed 100 acres per calendar year or more than 300 acres for the Original Term. Such excluded acreage shall be in one or more areas selected by the Department from time-to-time, for the purpose of protecting wildlife habitat improvements and recreation developments. *Provided, however,* that no existing cattle loading facilities will be excluded. If any existing springs are excluded and, as a result of such exclusion, there is a material reduction in the number of cattle drinking facilities on the Premises, then despite the exclusion the Department will make available facilities for cattle drinking in the area near the excluded spring.
5. **Protection of cultural resources:** In addition to those areas already excluded to protect cultural resources, the Department reserves the right to exclude any portion of the premises, including any livestock associated facilities, in the event that specific livestock operations are determined to be significantly impacting previously identified or newly discovered cultural resources.
6. **Use of Premises:** Lessee shall use the Premises only for the grazing of livestock and single-family housing for Lessee's ranch manager in the Ranch Manager's House, and for no other purpose. Unless otherwise approved by the Department

in writing, a cow-calf operation only shall be conducted under this Lease. A "calf" shall be defined as suckling calf not exceeding nine months of age.

If the Lessee maintains agreements in good standing with U.S. Forest Service (USFS) and U.S. Bureau of Land Management (BLM) regarding adjacent federal allotments, the approved base ranch operation consists of 350 resident cows, with or without calves, on the Premises year-round; plus bulls; horses; and replacement heifers and/or stockers from the resident herd. Replacement heifers or bulls from outside the resident herd shall be allowed only as needed to maintain the resident herd of 350 cows. If Lessee maintains adjacent USFS and/or BLM allotments in good standing, no more than 450 animal units (excepting additional allowable stockers as specified below) shall be on the Premises at any one time, and only if adequate forage is available to support these numbers AND biomass/RDM objectives are being met. Should Lessee not have access to adjacent USFS and/or BLM allotments for any reason, the maximum herd size of 250 cows, plus bulls, replacement heifers and horses, such that the total number of animals that may be kept on the property at any one time is 350 AU (Table 1).

The total forage available for the resident cow/calf operation on the Premises is 3,600 Animal Unit Months (AUMs) during a one year period; one AUM is the amount of forage consumed by one "animal unit" (AU) in one month. For the purposes of this lease, one animal unit is equivalent to one cow, with or without a suckling calf; or one bull; or one horse; or one weaned steer or replacement heifer. Stocking rate and duration of use in each management unit will be regulated by Lessee such that no more than 3,600 AUMs are utilized on the premises during a one year period.

It should be noted that the individual management unit goals and objectives as detailed in Exhibit A will be the primary factors determining the annual number of AUM's available. In the event that management units become unavailable for use in a particular year, or if the amount of forage produced in that year is lacking, the number of AUM's and corresponding number of livestock utilizing the premises may need to be reduced.

Alternatively, should the Department determine that a greater number of animals than those described above are needed to meet habitat management goals, stockers from outside the base herd may be authorized by prior written approval by the Department. Such written approval shall specify allowable stocker numbers for that season, and maximum time period, not to exceed six months.

Lessee agrees to conduct managed grazing in annual grasslands and blue-oak woodlands on the Premises to benefit habitat for sensitive grassland species such as San Joaquin kit fox and burrowing owls and to allow for ongoing research by the Department and Department-approved research entities. Habitat conditions for these species will be provided by reducing grass height and biomass. Excess vegetation will be removed by regulated livestock grazing pursuant to this Lease.

The Department will determine grass height/biomass goals and communicate these with the Lessee, if different from those identified in **Exhibit A**.

Throughout the year, and irrespective of monitoring events which would measure biomass/RDM, it is the responsibility of the Lessee to maintain biomass/RDM in each management unit utilized by livestock. In no event shall Lessee allow biomass/RDM on the Premises to fall below the specified biomass/RDM objectives specified in Exhibit A. Lessee shall promptly adjust livestock in any management unit that is not meeting minimum biomass objectives, or remove livestock from any management unit once it has reached specified biomass/RDM objectives as detailed in **Exhibit A**. Upon adoption by the Department of a grazing or management plan for the Reserve Property, the biomass/RDM requirement specified above shall be superseded by the provisions of the grazing or management plan.

Table 1 : Available Animal Units (AU) depending upon federal lease availability		
	Base Ranch Operation Year Round Resident Herd Size For Premises (Animal Units ¹)	Maximum Animal Units Allowed On Premises At Any One Time (Animal Units ¹)
With Adjacent Federal Grazing Allotments	350	450
Without Adjacent Federal Grazing Allotments	250	350
Notes		
<ol style="list-style-type: none"> 1. Includes cows plus bulls, horses and replacement heifers and/or stockers from the resident herd. 2. The total forage available for the resident cow/calf operation is 3,600 Animal Unit Months (AUMs); one AUM is the amount of forage consumed by one "animal unit" (AU) in one month. For the purposes of this lease, one animal unit is equivalent to one cow, with or without a suckling calf; or one bull; or one horse; or one weaned steer or replacement heifer. 		

7. **Overuse of premises:** Lessee shall make adjustments in the operation to prevent overuse of the premises. Any management unit(s) utilized beyond the overall limits established in Section 6, or the biomass/residual dry matter (RDM) standards established in **Exhibit A** will require Lessee to adjust livestock numbers (per Section 6) and/or distribution (per Exhibit A) to meet requirements. In the event that Lessee fails to promptly make adjustments, the Department may direct lessee, in writing, to remove animals so that overall limits are not exceeded and/or from specific management units which are not meeting biomass/RDM standards. Lessee must comply within 10 business days of receipt of such notice.

Any management unit not meeting minimum standards as detected by fall RDM monitoring will be subject to spring biomass monitoring as described in Exhibit A. Any management unit which does not meet minimum standards with the implementation of spring biomass monitoring, may not be available for livestock grazing the following year. However, the Department may waive this requirement if vegetative production the following year is high enough to result in significant loss of habitat value for the focal biological resources of that management unit (see Section 6 and Exhibit A).

- 8. Monitoring:** Lessee shall be responsible for monitoring range conditions on the premises. Monitoring shall consist of residue pattern mapping as described in Exhibit A. Residue pattern mapping shall be conducted for all management units being utilized as part of this lease as shown on Figure 1. Residue pattern maps shall be provided to the Department by November 1 of each year and the Department shall confirm the accuracy of these maps with the Lessee prior to the end of each calendar year. Any management unit not meeting the minimum RDM/biomass standards described in Exhibit A shall be subject to the remedial actions described in Table 3 of Exhibit A. In accordance with the remedial actions described in Exhibit A, any management unit which does not meet the RDM standards with the implementation of spring biomass monitoring, will not be available for livestock grazing the following year. Management units shall be monitored according to protocols specified in **Exhibit A**; modifications to the monitoring protocols must be approved by the Department in writing. Request to modify the monitoring protocols must be received by the Department at least thirty days prior to the required monitoring event.
- 9. Rent:** Lessee shall pay rent and provide in-kind consideration for the Lease as set forth in this Section.

 - 9.1. Ranch Manager's House:** Lessee shall pay \$500.00 per month as rent for the Ranch Manager's House (18890 Chimineas Ranch Rd). Lessee shall pay this cost directly to the Department minus one-half the cost of any pump repairs (see Section 14 below) within 30 days of the submittal of an invoice by the Department. The Department will provide invoices no more frequently than every quarter. In addition to rent, Lessee will also be responsible for all costs of phone, electricity (meter #1005545126), propane and garbage collection associated with the Ranch Manager's House. This Section states a separate rent amount for the Ranch Manager's House as a matter of convenience only. Neither this Section, nor any other provision of this Lease, is intended to or shall entitle Lessee to lease the Ranch Manager's House from the Department except as a part of the Premises.
 - 9.2. Livestock Grazing:** Lessee shall pay the Department \$46,800.00 per year (3,600 Animal Unit Months (AUM) per year x \$13.00/AUM) as rent for grazing the Premises. An AUM is defined as the amount of forage necessary to feed one Animal Unit (AU) for one month. One Animal Unit is defined, for the

purposes of this lease, as one beef cow with a nursing calf, one bull, one horse, one replacement heifer, or one steer. Rent is paid as a lump sum. Unless the number of livestock utilizing the premises exceeds 3,600 AUM per year, the total amount is due and payable regardless of the actual number of grazing animals on the Premises, and regardless of the number of AUMs which are calculated to have been utilized by the Lessee's animals. In the event that the number of livestock exceeds 3,600 AUM per year and the Department has not authorized this increase, lessee shall pay the difference between the AUM's utilized and the AUM's of the base operation.

In lieu of cash rental payments, as partial consideration for this Lease, Lessee shall provide or cause to be provided services on the Premises, or the Chimineas Unit as a whole, with a value of at least \$46,800.00 per year, commensurate with the pay and benefits of a Fish and Wildlife Technician, determined at the rate of \$25.00/hour. The specific services to be provided by Lessee shall be determined by the Area Manager and shall include, but are not limited to, site security for the premises, routine maintenance and upkeep of the pool and landscaping within the Main Ranch Complex, maintenance of fire breaks around the Ranch Headquarters, including the "Main Ranch Complex", pumping of water and waterline repair for wildlife enhancement projects, and road maintenance on the approximately 40 miles of roads on the premises. Additional services may include, without limitation, bulldozer, backhoe and tractor time as determined by the Area Manager. Heavy equipment operator time will be valued at \$85.00/hr broken down as follows (Labor \$29.00/hour, commensurate with the pay and benefits of a tractor/operator laborer + \$45.00/hour equipment rental + \$11/hour operating costs). The lessee or his employees shall have the appropriate qualifications or licenses to operate the aforementioned equipment.

Primary access road maintenance and firebreak maintenance activities around the main ranch complex as detailed in Figure 2 are expected to cost approximately \$17,000. General maintenance and upkeep of the pool and landscaping are expected to cost approximately \$26,000. The total annual value of routine maintenance is therefore \$43,000 per year.

9.3. Utility Costs: Also as partial consideration for this Lease, Lessee shall pay all utility costs associated with the livestock operation on the Premises. The parties have determined these costs to be equal to one-third of the total electric bills for all of the meters (4 meters total) on the Premises. Lessee shall be responsible for paying all of the electric bills (three different bills) associated with the water pumping on the Reserve Property. The meter numbers which correspond to these bills are as follows: (Strip Well # 21R385, North Gate Well # 1003124424, and Turkey Camp Well # K53207). Lessee shall make such payments to Pacific Gas and Electric on or before the date the bill is due. Lessee shall provide evidence of such payments to

the Department upon request. Any late charges shall be the responsibility of Lessee.

9.4. Record Keeping and Reporting: The Lessee shall be responsible for keeping complete and accurate records and supporting documentation of services provided pursuant to Section 9.2. Lessee shall create an accurate log of all work performed in excess of the routine maintenance activities described in Section 9.2. Lessee shall maintain this log which will include date, person(s) performing work, nature and location of work, hours worked, and shall furnish such information to the Department annually.

Lessee agrees that the Department, the California Department of General Services, the Bureau of State Audits, or their respective designated representative(s) shall have the right to review and copy any records and supporting documentation pertaining to the performance of this Lease. Lessee shall retain all such records throughout the term of the Lease, and for a period of at least four (4) years after the expiration or termination hereof or until audited, whichever occurs first. Lessee agrees to make the records available for inspection and audit purposes during normal business hours and to allow interviews of any employees or contractors who might reasonably have information related to such records.

10. AS-IS Condition of Premises: Lessee was the owner, and in possession, of the Reserve Property prior to the date of this Lease. Lessee is fully familiar with and has satisfied himself as to all aspects of the Premises. Lessee accepts the Premises, including all improvements thereon, in their AS-IS condition as of the date of this Lease, and acknowledges that the Department has made no warranties or representations, express or implied, as to the condition of the Premises or the fitness or suitability of the Premises for Lessee's use. No utilities or services, electricity or propane, will be provided by the Department, and the Department assumes no liability or responsibility for the availability or lack of any utilities or services.

Lessee agrees at his cost to maintain the Premises, including without limitation, the shop, shed, horse barns, and Ranch Manager's House, in the same condition existing at the beginning of the Original Term. *Provided, however,* that Lessee shall not be responsible for clean-up of or damage to the Premises caused by any actions of Department personnel or Department sponsored individuals on the Premises.

11. Alterations, Additions and Improvements: Lessee may construct alterations, additions and improvements to the Premises (including without limitation the buildings and other improvements thereon) only after obtaining the written approval of the Department, which the Department may withhold. No alterations, additions or improvements shall be permitted to begin until the Department has approved the complete plans and specifications for such work. Plans for any building

construction or structural renovation must be prepared by a licensed architect registered by the State of California.

- 12. Good Husbandry; Livestock:** Lessee shall conduct all grazing operations on the Premises at Lessee's sole cost in accordance with good husbandry and the best practices of the agricultural community of San Luis Obispo County, in which the Premises is located. Without limiting the previous sentence, all livestock brought or kept upon the Premises shall be free from disease. Livestock which may die or be killed on the Premises should be left in the field to the greatest extent practical. However, Lessee shall utilize non lead ammunition on any livestock which may be killed on the Premises.
- 13. Brands:** Lessee shall immediately notify the Department in writing of the brands and numbers of cattle bearing each brand which Lessee places upon the Premises. Such notice must be made at least two weeks in advance of any such placement, except that Lessee may place up to 30 bulls on the Premises during any 12 month period, as long as Lessee notifies the Department of the information required by this Section within 30 days of such placement.
- 14. Fence Maintenance and Livestock Movement:** Lessee shall at all times during the term of the Lease and at Lessee's sole cost, maintain in good repair and condition all fences and corrals existing on the Premises at the time the premises were acquired from the lessee in 2004. Lessee shall take all action necessary to prevent the entry or trespassing of livestock upon land and roads outside the Reserve Property as well as management units deemed by the Department to be unavailable for livestock use. To this end, Lessee agrees to construct, and maintain at all times in good repair and condition, any new fences which may be necessary to prevent the entry or trespassing of said livestock on land and roads outside of the Reserve Property or on those management units deemed unavailable by the Department as described in Section 1 above. Any new fence construction, including corrals and holding pens, shall be subject to the prior written consent of the Department and shall occur only at locations and in amounts determined or agreed upon in advance and in writing by the Department.

The Department may repair any and all fences which are not maintained in a manner necessary to prevent entry of livestock into unauthorized areas. If this occurs, Lessee agrees to reimburse the Department \$10 per linear foot for fencing installed or replaced by the Department or its contractors. Cattle trespass due to failure of Lessee to maintain fencing may result in those management units from which the trespass animals originated being made unavailable for use the following year. If this occurs, the base herd may need to be reduced to ensure that minimum standards for the other utilized management units are not exceeded. The Department agrees to provide written notification to the lessee of specific fencing deficiencies prior to repairing any fences subject to reimbursement as described above, or if a management unit becomes unavailable to the lessee based upon the conditions of this section.

- 15. Fence Ownership:** Internal fencing and corrals constructed by the Lessee during the term of this Lease shall be and remains the property of Lessee and shall be removed by the Lessee within ninety (90) days following the expiration or termination of this Lease. At the election of the Department, any fences or corrals not so removed shall become the property of the Department or may be removed by the Department at the expense of Lessee.
- 16. New Troughs/Water Sources:** Lessee may, at his sole cost, provide additional water troughs or sources, and tap into the existing water system for the Premises, solely for purposes of this Lease. *Provided, however,* that any such activity or use shall be subject to the prior written consent of the Department and shall occur only at locations and in amounts determined or agreed upon in advance and in writing by the Department. The Department does not guarantee the availability, quantity or quality of water on the Premises.
- 17. Maintenance; Operating Costs:** In addition to his other maintenance obligations under this Lease, Lessee shall be responsible for maintaining at all times in good repair and condition, all of the improvements and infrastructure used in or associated with the grazing operation on the Premises, including, without limitation, pumps, tanks, pipelines, and troughs. *Provided, however,* that the cost of pump repair will be shared by the Lessee and the Department in proportion to the use made of the pump by each party. Except as otherwise provided in this Section, all costs incurred by Lessee in connection with operations under this Lease shall be borne and paid by Lessee when due. Unless otherwise specified in this Lease, the Department shall not be required to perform any maintenance on or make any repairs, alterations or improvements to, the Premises of any nature whatsoever.
- 18. Waste and Tree Removal:** No dumping of refuse is permitted in any area of the Premises. Lessee shall at all times exercise due diligence in the protection of the Premises against damage or destruction by fire or other causes, whether or not similar. Lessee shall not commit, suffer or permit any nuisance, waste or illegal act upon the Premises, or cut or remove or allow the cutting or removal of any trees or brush thereon, by or on behalf of Lessee or anyone under or pursuant to the direction or control of Lessee. *Provided, however,* that Lessee may cut and remove trees or brush from a fence line when necessary to construct fences required under Section 11 above. No wood may be removed from the Premises. However, downed wood from trees which are restricting access on existing roads within the Premises may be cut, gathered, and utilized on-site.
- 19. Lease Non-Exclusive; Department Use of Premises:** This Lease is non-exclusive. The Department expressly reserves the right to use, and to authorize the use of, the Premises in any manner, provided that such use does not unreasonably interfere with Lessee's use of the Premises in accordance with this Lease. Lessee shall not unreasonably interfere with the normal operations and activities of the Department in its use of the Premises.

- 20. Entry by Department:** During the term of this Lease and despite any contrary provision contained in this Lease, or any possession or rights of the Lessee hereunder, the Department expressly reserves to itself and to any of its officers, directors, agents, employees, volunteers, contractors, subcontractors, representatives, licensees or invitees, the right at any and all times and at any and all places to enter upon the Premises for inspection, scientific research, rangeland monitoring or any other lawful purposes.
- 21. Public Access:** With the exception of the ranch manager's residence and the workshop, lessee acknowledges and agrees that the Premises and every part thereof shall be subject to use for public recreation including, but not limited to, public hunting, public fishing, and field trials, under applicable laws of the State of California and rules and regulations of the California Fish and Game Commission. The Department, its directors, officers, agents, employees and volunteers shall not be responsible for loss or damage to livestock or property or injuries (including death) to persons which may arise from or be incident to such use of the Premises by the public.

The Department and Lessee is each aware of California Civil Code Section 846, regarding entry or use of real property for recreational purposes, which states as follows:

An owner of any estate or any other interest in real property, whether possessory or nonpossessory, owes no duty of care to keep the premises safe for entry or use by others for any recreational purpose or to give any warning of hazardous conditions, uses of, structures, or activities on such premises to persons entering for such purpose, except as provided in this Section.

A "recreational purpose," as used in this Section, includes such activities as fishing, hunting, camping, water sports, hiking, spelunking, sport parachuting, riding, including animal riding, snowmobiling, and all other types of vehicular riding, rock collecting, sightseeing, picnicking, nature study, nature contacting, recreational gardening, gleanng, hang gliding, winter sports, and viewing or enjoying historical, archaeological, scenic, natural, or scientific sites.

An owner of any estate or any other interest in real property, whether possessory or nonpossessory, who gives permission to another for entry or use for the above purpose upon the premises does not thereby (a) extend any assurance that the premises are safe for such purpose, or (b) constitute the person to whom permission has been granted the legal status of an invitee or licensee to whom a duty of care is owed, or (c) assume responsibility for or incur liability for any injury to person or property caused by any act of such person to whom permission has been granted except as provided in this Section.

This Section does not limit the liability which otherwise exists (a) for willful or malicious failure to guard or warn against a dangerous condition, use, structure or activity; or (b) for injury suffered in any case where permission to enter for the above purpose was granted for a consideration other than the consideration, if any, paid to said landowner by the state, or where consideration has been received from others for the same purpose; or (c) to any persons who are expressly invited rather than merely permitted to come upon the premises by the landowner.

Nothing in this Section creates a duty of care or ground of liability for injury to person or property.

- 22. Mineral Rights:** Lessee agrees to not interfere in any way with the interests of any person or persons who may presently, or in the future, hold oil, gas, or other mineral interests in, upon or under said Premises; nor shall Lessee, in any way, interfere with the rights of ingress or egress of said interest holders.
- 23. Easements and Rights of Way:** This Lease is subject to all existing covenants, conditions, restrictions, reservations, contracts, licenses, permits, liens, encumbrances, easements, and rights-of-way, whether or not of record. The Department specifically reserves the right to grant additional easements as may be necessary for public utility or other purposes, and Lessee hereby consents to the granting of any such easement.
- 24. Compliance With Laws:** Lessee shall, at his sole cost, comply with all of the laws, statutes, regulations, codes, ordinances, orders and requirements of all municipal, State, and federal authorities now in force or which may be in force during the Lease term applicable to Lessee, the Premises (including improvements thereon), or use or occupancy of or activities or operations upon the Premises under this Lease.
- 25. Hazardous Substances:** Lessee shall comply with all laws, whether federal, State or local, existing during the term of this Lease (including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 *et seq.* and the Superfund Amendment and Reauthorization Act, 42 U.S.C. Section 11021) pertaining to the generation, use, storage, transportation, disposal, discharge or release of any hazardous or toxic substance, material or waste, pollutant, contaminant, or similar term, as defined in such laws (each a "Hazardous Substance"). The term "Hazardous Substance" as used in this Lease includes, but is not limited to, pesticides, petroleum, crude oil, or any product, by-product or fraction thereof, fuel, PCB's, asbestos and asbestos-containing material.

The following activities are prohibited on the Premises:

- A. The generation, use, storage, transportation, disposal, discharge or release of any Hazardous Substance, except only as follows:
 - 1. Materials packaged and purchased for consumer use in containers not to exceed 5 gallons;
 - 2. Fuel in the three existing above-ground vehicle fuel storage tanks;
 - 3. Propane in existing tanks.
- B. Accumulation, storage, treatment, or disposal of any waste material; excepting only temporary storage, not to exceed 14 days, of non-hazardous solid refuse produced from activities on the Premises for pick up by a municipal or licensed commercial refuse service, and lawful use of sanitary sewers (if any) or septic systems for domestic sewage.
- C. Manufacturing; maintenance of equipment or vehicles; or installation, construction or use of vessels, tanks (stationary or mobile), dikes, sumps or ponds; or any activity for which a license or permit is required from any government agency for (1) storage, transportation, treatment, or disposal of any waste, (2) discharge of any pollutant including but not limited to discharge to air, water, or a sewer or septic system.
- D. Grading, regrading or altering in any way the ground surface of the Premises without the prior written approval of the Department, which the Department may withhold.
- E. Use of pesticides (herbicides, rodenticides, or insecticides) on the Premises outside of the main ranch complex area.

Use of pesticides shall be minimized, and pesticides shall be applied only by authorized personnel in accordance with this Lease, and all applicable laws, regulations, and label instructions. No aerial application of pesticides will be permitted. Lessee will fill out form FG-880, submit it to the Area Manager and receive written approval prior to any application of pesticides. The Department reserves the right to disapprove the use of any pesticide. Should Lessee use pesticides on the Premises, all applicable Environmental Protection Agency (EPA) standards must be met. **Lessee acknowledges that not all EPA-approved pesticides are permitted to be used on Ecological Reserves, including the Premises.** Lessee shall obtain all county, State or federal permits required, including restricted pesticide use and burning permits, and comply with all conditions of those permits. Lessee shall submit to the Area Manager a copy of all permits.

Lessee shall immediately report any discharge, spill or release (collectively, "Release") of a Hazardous Substance on, under or from the Premises, whether to

the air, soil, surface water, or groundwater, to the Department as well as to appropriate government agencies. Lessee shall indemnify, protect and hold harmless the Department, its directors, officers, employees, agents and volunteers from and against all claims, liability, losses, costs, expenses, and damages, including attorneys and experts fees, fines and penalties, arising from or in connection with the Release and promptly and fully clean up, remove and remediate, the Release and any resulting contamination and restore the Premises, the Reserve Property and any other property affected by the Release (including soils and surface water and groundwater) to its condition existing prior to the Release. Lessee's obligations under this paragraph shall survive the expiration or termination of this Lease.

- 26. No Assignment or Sublease:** Lessee shall not, without the prior written consent of the Department, sublet the Premises, in whole or in part, or assign, sublet, or transfer the Lessee's interest in this Lease, in whole or in part, either voluntarily, involuntarily, or by operation of law. Lessee shall not permit anyone other than Lessee and Lessee's employees to use or occupy the Premises without the prior written consent of the Department, except that Lessee may sublease the Ranch Manager's House to Lessee's ranch manager for the Premises for use solely as a single-family residence for the ranch manager and his or her immediate family. Any such sublease shall conform to this Lease and applicable law. Except as otherwise provided in this Section, any sublease, assignment or other transfer or permission without the prior written consent of the Department shall be void and, at the election of the Department, shall terminate this Lease.
- 27. Breach of Lease:** Lessee shall pay the sums and provide the consideration to the Department as specified in this Lease, without demand, deduction, offset, default or delay. In the event of a failure, neglect or refusal by Lessee to do so, or in the event of a breach of any other terms, covenants, or conditions contained in this Lease on the part of the Lessee to be observed, kept or performed, and if such failure continues for a period of thirty (30) days after written notice of such breach from the Department to Lessee, the Department may elect to terminate this Lease. In the event of termination, the Department shall have the right to recover from Lessee all amounts necessary to compensate the Department for all the detriment proximately caused by the Lessee's breach, as described in California Civil Code Section 1951.2, including the worth at the time of award of the amount by which the unpaid rent for the balance of the term after the time of award exceeds the amount of such rental loss that Lessee proves could be reasonably avoided. In addition, the Department has the remedy described in California Civil Code Section 1951.4 (the Department may continue the Lease in effect after Lessee's breach and abandonment and recover rent as it becomes due). In the event of termination it shall be lawful for the Department to enter into and upon the Premises, and every part thereof, and to remove all persons and property therefrom at the expense of Lessee, and to enjoy the Premises. In the event the Department terminates this Lease pursuant to this Section, the Department shall

not be required to pay Lessee any sum or sums whatsoever. This provision is not a limitation upon any other legal or equitable remedies of the Department.

- 28. Failure to Perform:** Should Lessee fail, neglect or refuse to do or perform any work, or other act or thing in this Lease provided to be done or performed by Lessee, the Department, at its option, shall have the right (but not the obligation) to do and perform the same at the expense of Lessee. Lessee shall pay the Department the cost of its performance upon demand, together with interest from the date of demand until payment at the maximum rate allowed by law.
- 29. Taxes and Fees:** Lessee shall, in addition to all other sums agreed to be paid by Lessee under this Lease, pay prior to delinquency any and all taxes, assessments or charges which at any time may be levied upon Lessee's interest in the Premises or this Lease. This Lease may create a possessory interest subject to property taxation and Lessee may be subject to the payment of possessory interest taxes levied on such interest. Lessee shall not be responsible for the payment of any dam or water right fees.
- 30. Insurance:** Upon execution of this Lease, Lessee shall furnish a Certificate or Certificates of Insurance issued to the Department evidencing that Lessee has in effect the following insurance:
 - a. A policy or policies of commercial general liability insurance issued by a reputable insurance company with a rating of A-:XII or better in the most recent issue of Best's Insurance Guide ("Eligible Insurer"), with limits of not less than One Million Dollars (\$1,000,000.00) per occurrence with respect to the Premises and the operations under this Lease. The policy shall be written on an occurrence basis and include coverage for liability assumed under this Lease as an insured contract for the performance of Lessee's indemnity obligations.
 - b. A policy or policies of automobile insurance covering owned, non-owned and hired vehicles issued by an Eligible Insurer, in the amount of at least One Million Dollars (\$1,000,000.00) per occurrence.
 - c. Such Worker's Compensation insurance, if any, as may be required by applicable law.

The Certificate(s) of Insurance will be issued by the insurer and must provide that:

The insurer will not cancel, non-renew or materially change the insured's coverage without at least thirty (30) days prior written notice to the Department; and that the Department, its directors, officers, agents, employees and servants is each named as an additional insured by endorsement to such policy or policies, but only insofar as the Premises and operations under the Lease are concerned.

The Department will not be liable for the payment of any premiums or assessments on the insurance required by this Lease. Lessee agrees that the insurance herein provided for shall be in effect at all times during the Original Term, any extensions of the Lease term, holdover periods or any other occupancy of the Premises by Lessee. In the event said insurance coverage expires or is canceled or non-renewed at any time during the term of the Lease, Lessee agrees to provide to the Department of Fish and Game, Attn: Regional Manager, 1234 E. Shaw Ave., Fresno, CA 93710, at least thirty (30) days prior to said expiration or termination date, a new Certificate of Insurance evidencing the required insurance coverage for not less than the remainder of the term of the Lease or for a period of not less than one (1) year, whichever is longer. All Certificates of Insurance are subject to the approval of the Department. In the event Lessee fails to keep insurance coverage in effect at all times as herein provided, the Department may, in addition to other remedies it may have, terminate this Lease immediately. The Department makes no representation or warranty regarding the adequacy of the insurance coverage this Lease requires, and such insurance shall not limit any liability of Lessee.

The Department will not keep improvements or other property insured against fire or casualty, and Lessee will make no claim of any nature against the Department by reason of any damage to the business or property of Lessee in the event of damage or destruction by fire or other cause, arising other than from the sole negligence of a Department employee within the scope of his or her employment.

- 31. Lessee as Independent Party:** Lessee and any and all agents, employees and contractors of Lessee shall act in an independent capacity and not as officers or employees of the Department. The relationship of Lessee and the Department is that of landlord and tenant only, and nothing herein shall be construed or interpreted as evidence of or to create a partnership between Lessee and the Department.
- 32. Hold Harmless:** This Lease is made upon the express condition that the State of California is to be free from all liability and claims by reason of any injury (including death) to any person or persons, including Lessee, or property of any kind whatsoever and to whomever belonging, including Lessee, from any cause or causes whatsoever while in, upon, or in any way connected with the Premises or the Reserve Property during the term of this Lease or any occupancy hereunder, except those arising out of the sole negligence of the Department. Lessee agrees to defend, indemnify, protect and save harmless the State of California, its agencies, departments and other branches, including without limitation the Department, and their respective directors, officers, employees, agents and volunteers, from and against any and all claims, liability, loss, cost, damage or obligation on account of or arising out of any such injury or loss, however occurring. This Section shall survive the expiration or termination of this Lease.

- 33. Attorney Fees:** If action is brought by the Department for the enforcement or interpretation of this Lease, to recover any rent or other consideration due hereunder, because of any alleged dispute, breach, default or misrepresentation under or in connection with this Lease, for the recovery of possession of the Premises, or to protect any rights given to the Department against Lessee, and if the Department shall prevail in such action, then in addition to any other relief to which the Department may be entitled, Lessee shall pay to the Department such amount as attorney's fees in said action as the Court shall determine to be reasonable, which shall be fixed by the Court as part of the costs of said action.
- 34. Department Not Liable for Debts:** The Department shall not be liable for any debts, claims, liens, or encumbrances which arise from the operation of this Lease, and Lessee shall indemnify, defend, protect and hold harmless the Department in the event of any such debt, claim, lien or encumbrance against the Department or the Premises.
- 35. Loss or Damage:** The Department will not be responsible for losses or damage to personal property, equipment or materials of Lessee. *Provided, however,* that the Department will be responsible for damage caused by the sole negligence of a Department employee within the scope of his or her employment, to the extent provided under Government Section 815 *et seq.* Lessee shall report all losses to the Department upon discovery.
- 36. Nondiscrimination:** In the performance of this Lease, Lessee shall not discriminate, harass, or allow harassment against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability (including HIV and AIDS), mental disability, medical condition, age (over 40), marital status, sex, sexual orientation, or use of family care leave. Lessee agrees to take affirmative action to insure that the evaluation and treatment of employees and applicants for employment are free from such discrimination and harassment. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Lessee shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12990 (a-f) *et seq.*) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 *et seq.*) The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this Lease by reference and made a part hereof as if set forth in full. Lessee shall give written notice of its obligations under this Section to any labor organizations with which Lessee has a collective bargaining or other agreement, and shall post in conspicuous places available to employees and applicants for employment, notice setting forth the provisions of this Section. Lessee shall also include the nondiscrimination and compliance provisions of this Section in all contracts for work on the Premises.

37. Notices; Emergency Contact: All notices, requests, consents, approvals and other communications required or permitted under this Lease (each a "Notice"), shall be in writing. Notices shall be personally delivered or sent by United States mail, postage prepaid, return receipt requested. Notices shall be addressed as follows:

To Lessee: Neal Dow
28000 Southeast Paulina Highway
Prineville, Oregon 97754-9804

To the Department: Department of Fish and Game
Central Region
Attn: Regional Manager
1234 East Shaw Avenue
Fresno, California 93710

And to: Robert Stafford, Area Manager
Carrizo Plain Ecological Reserve
Post Office Box 6361
Los Osos, California 93412
(805) 528-8670

A Notice shall be deemed received upon the earlier of (a) if personally delivered, the date of delivery to the address of the party to receive such Notice, or (b) if mailed as provided above, on the date of receipt or rejection. The address for Notice may be changed by written notice given in accordance with this Section, but nothing herein contained shall preclude the giving of any such Notice by personal service.

In the event of an emergency during non-business hours or on a weekend or holiday, Lessee shall call the Department's Area Manager (the "Area Manager"), Robert Stafford, or Rocky Thompson, (Senior Wildlife Biologist) through the Department of Fish and Game Dispatch (916) 445-0045.

38. Previous Agreements Terminated: If there is any existing lease or other agreement between the Lessee and the Department respecting the Premises or any part(s) of it, this Lease shall automatically terminate all such lease(s) and agreement(s) as of the effective date of this Lease.

39. Termination; No Merger: This Lease may be terminated by either party by giving Notice to the other at least 90 days prior to the effective date of termination. The voluntary or other surrender by Lessee, or a mutual cancellation by the Department and Lessee, of this Lease shall not work a merger and shall, at the Department's option, operate as an assignment to the Department of any or all subleases or subtenancies.

- 40. Surrender:** Within 90 days of the expiration of the term, or any sooner termination of this Lease, Lessee shall remove all articles of personal property and any and all equipment and improvements of Lessee, repair any and all damage resulting therefrom, and quit and surrender the Premises including all improvements and appurtenances in as good order and condition as received, reasonable wear and tear excepted.
- 41. Waiver:** No waiver by the Department of a breach of any term, covenant or condition contained in this Lease shall be treated as a continuing waiver, or as a waiver of any future breach of the same of any other provision. The acceptance of rent or other consideration by the Department shall not be treated as a waiver of any prior breach, other than the failure of Lessee to pay or perform the particular rent or consideration accepted, regardless of the Department's knowledge of a previous breach at the time of its acceptance.
- 42. Effectiveness/Amendments:** This Lease shall become effective on the date when fully signed by the last party to sign it, and shall remain in force until it expires or is terminated pursuant to its terms or by mutual written agreement of the parties. This Lease may be altered, changed or amended only by mutual written agreement of the parties.
- 43. Entire Agreement:** This Lease, together with its exhibits and figures, contains any and every representation, promise, agreement and understanding by the parties regarding the Lease and the Premises, and supersedes any and all prior or contemporaneous negotiations or understandings.
- 44. Lease Binding:** The terms of this Lease and the covenants and agreements herein contained shall apply to and shall bind and inure to the benefit of the heirs, representatives, assigns and successors in interest of the respective parties hereto; subject, however, to the limitations on assignment and subletting set forth in Section 23.
- 45. Headings; Exhibits; Figures:** The captions and headings contained in this Lease are for convenience of reference only and are not intended to define or limit the scope of any provision of this Lease. The following exhibit and figures referenced in this Lease are incorporated by reference in it:

Exhibit A – Management Unit Objectives, Monitoring Requirements, and Remedial Actions

Figure 1 – Premises included in lease agreement and management unit names

Figure 2 – Main Ranch Complex, excluded premises

Figure 3 – Map of management unit emphasis

IN WITNESS WHEREOF, the Lease has been executed by the parties hereto as of the date first written above.

**STATE OF CALIFORNIA
DEPARTMENT OF FISH AND GAME**

LESSEE

By: _____

Jeffrey R. Single, Ph.D.
Regional Manager
Central Region

By: _____

Neal Dow
28000 Southeast Paulina Highway
Prineville, Oregon 97754-9804
Telephone: (541) 446-3469

Grazing Lease – Chimineas Unit Carrizo Plain Ecological Reserve

Exhibit A Management Unit Objectives Monitoring Requirements and Remedial Actions

The primary purpose of the California Department of Fish and Game's ownership and operation of the Reserve Property, including the Premises, is for the conservation and enhancement of wildlife and biodiversity. Specific resources to be conserved and enhanced include grasslands, blue oak and juniper woodlands, tule elk, and numerous sensitive, threatened, or endangered species including burrowing owl and San Joaquin kit fox. To that end, specific objectives for grass height, standing biomass, and Residual Dry Matter (RDM), have been established for each of the habitat resources as described below.

Management Goals

Based upon existing habitat types, management units will have specific goals to protect or enhance habitat for the resources described below. The corrals within Garcia Farming and Feedlot management units will not be subject to the goals, objectives, or monitoring requirements for those pastures. A map of the management focus (goals) for utilized management units is included as Figure 3.

Short Grass Management Units – Maintaining and enhancing habitat for burrowing owls will be the primary goal for these management units. Associated species which will benefit from managing for short grass include San Joaquin kit foxes, pallid bats, and horned larks. Specific management units to be managed for these resources include **Unit 31, Unit 32, Scale, Garcia Strip** and **Garcia Farming**. All of these management units have a recent history of cultivation. Maintaining a grass height of less than 2" by May 1 (burrowing owl nesting season) will be the primary objective for these management units.

Upland Game Management Units - These management units will be managed to enhance native late season forbs which are the primary food source for doves and quail. **White Rock** management unit will be the only management unit managed in this manner at present. However, **Feed Lot** management unit may also be managed in this manner depending upon year to year range conditions. The primary objective for these management units will be to reduce biomass to approximately 750 pounds per acre by September 1.

Woodland Management units – Maintaining and enhancing blue oak and juniper woodlands will be the primary management focus for these management

units. In the case of oak woodlands, maintaining oak tree recruitment will be the goal. For juniper woodlands, the goal will be to reduce the potential for stand destruction by fire through the reduction of persistent summer biomass.

Management units in this category include **Garcia, Little Garcia, Red Tank, Airplane, Horse, Headquarters, Thousand Acre, and Barrett**. The primary objective in these management units will be to reduce RDM to a minimum of 1,000 lbs/acre.

Monitoring Objectives and Remedial Actions for Livestock Grazing by Management Unit Type

The biological goals are tied to specific grass height or biomass/RDM objectives for each management unit. The goal of monitoring is to detect if the utilization of each management unit is consistent with overall biomass/RDM objectives. Each management unit within the lease area will be monitored to determine if it meets specific RDM objectives. If RDM objectives are not met, it may indicate the need for adjustments in management of overall numbers and/or distribution of animals within and between management units. For each management unit that does not meet RDM objectives, adjustments to management will occur, and subsequent spring biomass monitoring will be conducted to assist with early identification that RDM objectives will be met. Given that livestock grazing will not occur in the tall grass and riparian management units, there will be no requirement for vegetation monitoring in these areas. A summary table of management unit objectives, monitoring, and remedial actions is included as Appendix 1.

Short Grass Management Units

The grass height objective for each short grass management unit is to have >75% of the each management unit with under 3 inches of standing annual vegetation by May 1 (burrowing owl nesting season). This corresponds to roughly 750 pounds per acre of standing biomass. No management unit will have >25% of the management unit with less than 300 lbs/acre RDM as a result of grazing, although this condition could occur in the absence of grazing under drought conditions. These management units will be monitored in the spring for grass height and again in the fall for RDM.

Short grass management units objectives: The grass height objective for short grass management units is that all management units will have >75% of the management unit with under 3 inches of standing annual vegetation by May 1. Additionally, none of these management units will have >20% of the management unit with less than 300 lbs/acre RDM.

Short grass management unit thresholds: No more than 25% of the management unit shall fall below 300 lbs/acre RDM and no more than 25% will be above 750 lbs/acre RDM. Spring grass height measurements are the primary

monitoring event for these management units. RDM monitoring will also be required to ensure that management units are not overutilized.

Short grass management units remedial activities: If more than 25% of a management unit falls below 300 lbs/acre at any time, then animals will be taken off the management unit and not turned out until at least 90% of the management unit meets or exceeds 500 lbs/acre and no more than 10% of the management unit falls below 300 lbs/acre, including green up.

If more than 25% of the management unit exceeds 3 inches in grass height during the owl nesting season (May-September), adjustments in the number of animals and/or distribution will be made with the objective being to reduce vegetation height.

If the year prior to measuring fall RDM is an average year, and >25% of the management unit is over 750 lbs/ac, distribution will be adjusted to more fully utilize the areas which are mapped in those classes. However, if the year prior to measuring fall RDM is an above-average production year, adjustments in stocking rate should be made with caution, increasing the number of stockers and/or replacement heifers (rather than increases to base cow herd) to increase utilization.

Upland Game Management Units

Presently, White Rock is the only management unit with this objective. Feed Lot management unit (outside of the existing corrals) may be included in this management strategy in the future depending upon annual range conditions. The biomass objective for these management units is to have between 25% and 75% of the management unit with less than 750 lbs per acre by September 1. Upland game management units will be monitored around September 1, with additional monitoring in the fall for RDM.

Upland game management unit objective: The biomass objective for this management unit is for the unit to have between 25% and 75% of the management unit with less than 750 lbs per acre by September 1.

Upland game management unit thresholds: Between 25% and 75% of the management unit will fall below 750 lbs/acre by September 1 (note that this is not a true RDM measure), and no more than 25% of the management unit shall fall below 500 lbs/acre RDM as a result of grazing, although this condition could occur in the absence of grazing under drought conditions. Monitoring biomass on or about September 1 will be the primary monitoring event; RDM monitoring will also be done.

Spring/summer biomass measurements will be consistent with meeting September 1 biomass requirements and Fall RDM requirements. Spring

sampling and mapping would be a remedial monitoring event if fall RDM objectives are not met.

Upland game management unit remedial activities: If more than 25% of management unit falls below 500 lbs/acre at any time, then animals will be taken off the management unit and not turned out until at least 50% of the management unit meets or exceeds 500 lbs/acre and no more than 10% of the management unit falls below 300 lbs/acre, including green up.

If more than 25% of the management unit exceeds 750 lbs/acre during summer, adjustments in number of animals and/or distribution will be made to meet RDM requirements; and spring biomass monitoring will be performed in the following year.

If the year prior to measuring fall RDM is an average year, and >25% of the management unit is over 750 lbs/ac, distribution will be adjusted to more fully utilize the areas which are mapped in those classes. However, if the year prior to measuring fall RDM is an above-average production year, adjustments in stocking rate should be made with caution, increasing the number of stockers and/or replacement heifers (rather than increases to base cow herd) to increase utilization.

Oak and Juniper Woodland Management Units

These management units will have the objective of maintaining >75% of the management units with RDM of more than 1,000 lbs/acre. These management units will be monitored for fall RDM. However, further assessments of spring biomass may be necessary in the event that the RDM target identified above was not met the prior fall.

Woodland management units objectives: These management units have the objective of maintaining >75% of the management units with RDM of more than 1,000 lbs/acre.

Woodland management units RDM thresholds: More than 75% of the management unit will meet or exceed 1,000 lbs/acre RDM (primary objective); and no more than 10% will fall below 300 lbs/acre RDM as a result of grazing, although this condition could occur in the absence of grazing under drought conditions. Fall RDM mapping is the primary monitoring event for these management units. Spring biomass monitoring may be necessary if the primary objective is not met.

Woodland management unit remedial activities: If less than 75% of the management unit meets or exceeds 1,000 lbs/acre at any time (including fall RDM monitoring), or if more than 10% of management unit falls below 300 lbs/acre at any time, then animals will be taken off the management unit and not turned out until at least 90% of the management unit meets or exceeds 1,000

lbs/acre and no more than 10% of the management unit falls below 300 lbs/acre, including green up; and spring biomass monitoring will be performed in the following year.

If more than 10% of the management unit is below 500 lbs/ac at any time, adjustments in distribution will be made to meet RDM requirements.

If more than 25% of the management unit falls below 1,000 lbs/ac for two years in a row, the management unit will be rested the following year.

Methodology

Residue Pattern Mapping

Residue Pattern Mapping is the primary form of monitoring for Residual Dry Matter (RDM) in the fall and biomass in the spring. It is useful for determining if thresholds have been met, and in addition, provides graphic information regarding the location(s) in each management unit which do not meet thresholds. The graphic presentation of residue by management unit can facilitate the understanding of needed remedial measures.

Monitoring methodology: In the fall, prior to onset of germinating rains, the grazed management units will be evaluated to determine how much of the management unit area meets RDM objectives. RDM will be estimated visually using the methodology described in Gunther 2008. For grazed management units, fall RDM monitoring as described above will take place annually. Management units which have spring/summer grass height or biomass objectives, as well as those management units for which meeting RDM objectives is questionable, will be evaluated to determine how much of each management unit meets biomass objectives. The evaluation needs to include the expected summer reduction in forage such that RDM objectives are anticipated to be met.

In addition, monitoring of spring biomass will take place in all management units to be grazed in years of low vegetative productivity. Typically biomass monitoring is done in the first month growth has ceased. Therefore, monitoring of spring biomass will take place on or around May 1. In the event that biomass/RDM approaches the fall RDM minimum thresholds at any time, the Lessee may be directed by the California Department of Fish and Game (Department) to informally or formally monitor the status of biomass/RDM in the management unit in question and remedial activities may be required (see below). The Department will visually inspect actively grazed management units on at least a monthly basis to determine if additional monitoring and remedial activities are required.

In the field, the management unit is divided into polygons which represent fairly uniform stands of biomass/RDM classes, mapped with approximately 30 acre minimum mapping units. Because of the diversity of objectives in grazing, 6 biomass/RDM classes will be utilized.

The 6 classes are as follows:

Class 1:	<200 lbs/acre	midpoint 200 lbs/acre
Class 2:	200-400 lbs/acre	midpoint 300 lbs/acre
Class 3:	400-600 lbs/ac	midpoint 500 lbs/acre
Class 4:	600-900 lbs/ac	midpoint 750 lbs/acre
Class 5:	900-1,100 lbs/ac	midpoint 1,000 lbs/acre
Class 6:	> 1,100 lbs/ac	

If a particular year is very productive, it may be helpful to revise Class 6 and add Class 7 at the top: Class 6: 1,100-1,900 lbs/ac, midpoint 1,500; and Class 7 >1,900 lbs/ac. Prior to initiating the visual estimates, a sufficient number of plots should be clipped and weighed to “calibrate” the estimates which support the mapping (see Frost et al, 1988; Guenther, 2005, for detailed methodology).

Each grazed management unit will then be mapped into biomass/RDM class polygons. Maps will then be transferred to the Department and transcribed into a GIS platform. This will produce a “Residue Pattern Map” which displays bounded areas of each management unit which fall in each biomass/RDM class. The maps are analyzed utilizing the GIS to determine how much of each management unit (# acres and %) falls into each of the residue classes, utilizing the information displayed in the set of maps (see Guenther, 2005 for examples of these maps). The analyzed maps would be the basis for evaluation, and compared to criteria established for each management unit, as set forth below.

If a fall RDM threshold is not met as shown by the above analysis, changes in numbers, season and/or distribution of animals may be warranted; and spring biomass monitoring will be required to determine if changes in management result in achieving fall RDM objectives. If fall RDM objectives are not met a second year, a range assessment measuring actual biomass by clipping and weighing at least 30 random plots in the management unit determined to be below the threshold, may be conducted to inform RDM estimates prior to concluding that cattle must be removed. Additionally, even if spring biomass targets are met, grazing may not be allowed in a particular management unit if RDM objectives were not met for the previous two consecutive years.

Relationship between spring biomass and RDM

To determine how much biomass should be on the ground in the spring to meet spring biomass objectives and/or fall RDM levels, there are four considerations: (1) the month that growth (increase in biomass) stops; (2) the month that germinating rains begin; (3) the rate at which decay will occur (7-13% per

month); (4) the rate at which forage will be consumed by cattle on the ground. The tables below specify the approximate level of spring biomass, by month, estimated to be necessary to achieve the desired fall RDM level of 1,000 pounds per acre, with (Table 2) and without (Table 1) grazing. The values for 7% and 13% are assumed to be the low and high values for the interior grasslands of the central coastal counties (Bartolome et al 2006), so optimal biomass would fall in between.

Table 1. Spring/summer biomass without grazing: Minimum standing biomass by month to meet fall RDM targets; does not include reduction expected due to cattle grazing.

								Fall RDM
		May 1	June 1	July 1	Aug 1	Sept 1	Oct 1	Nov 1
Reduce % by month								
7%		1545	1437	1336	1243	1156	1075	1,000
13%		2307	2007	1746	1519	1322	1150	1,000

Table 1 is a guide to estimating biomass needed on the ground after the end of the green season to reach specific RDM goals in the fall. Table 2 identifies the appropriate level of spring biomass, by month, which would need to be on the ground after the growing season has ended in order to meet desired fall RDM goals of 1,000 pounds per acre with continued grazing.

Table 2. Spring/summer biomass with grazing: Minimum standing biomass by month to meet fall RDM targets, including reduction expected due to cattle grazing of **50 pounds per acre per month**. Variations in stocking rate will modify the values in this table.

								Fall RDM
		May 1	June 1	July 1	Aug 1	Sept 1	Oct 1	Nov 1
Reduce % per month								
Expected use (50 lbs/ac/mo)		300	250	200	150	100	50	
7%		1545	1437	1336	1243	1156	1075	1,000
including expected use		1845	1687	1536	1393	1256	1125	
13%		2307	2007	1746	1519	1322	1150	1,000
including expected use		2607	2257	1946	1669	1422	1200	

Table 2 is illustrative of the spring biomass guidelines which have been increased to include forage needed to support one cow/calf unit on 20 acres (equivalent to approximately 50 pounds/acre/month). If the stocking rate differs from this, the figures utilized in Table 2 for "Expected use" will need to be adjusted.

For example: On May 1, in a management unit which has a goal of leaving 1,000 lbs/ac RDM, the spring biomass recommended is between 1845 and 2607 lbs/ac, to allow for natural reduction in biomass, as well as reduction due to grazing by cattle at an approximate rate of 50 lbs/ac/month. These values will be different if the stocking rate is not the assumed rate of Table 2 (which is one cow/calf unit per 20 acres, or 50 lbs/ac/month) and would need to be calculated based on actual stocking rate.

Management units that do not require formal monitoring (or those which are premature for monitoring) will be visually examined (as per Frost et al., 1988 and Harris et al., 2002) to determine whether areas are nearing or falling below recommended biomass levels (between the 7% and 13% value, as adjusted to allow for continued consumption of forage by livestock if livestock are present) to meet fall RDM goals.

References

- Bartolome, J., W. Frost, and N. McDougald. 2006. Guidelines for residual dry matter on coastal and foothill rangelands in California. Rangeland monitoring series, publication 8092. University of California, Division of Agriculture and Natural Resources.
- Despair, D.W., PR Ogden, and E.L. Smith. 1991. Plant frequency sampling for monitoring rangelands. In: G.B. Ruyle, ed. Some Methods for Monitoring Rangelands and other Natural Area Vegetation. Extension Report 9043, University of Arizona, College of Agriculture, Tucson, AZ.
- Frost, W.E., N.K. McDougald, and W.J. Clawson. 1988. Residue mapping and management unit use records for monitoring California annual rangelands. UC Davis Range Science Report 17.
- Guenther, K. and C. Cristian. 2005. Rangeland Easement and Monitoring Workshop. Draft document.
- Guenther, K. 2008. Monitoring Annual Grassland Residual Dry Matter (RDM) Field Guide. Wildland Solutions. Brewster, WA 20pp.
- Harris, Norman R., William E. Frost, Neil K. McDougald, Melvin R. George, and Donald L. Nielsen. 2002. Long-term Residual Dry Matter Mapping for Monitoring California Hardwood Rangelands. USDA Forest Service Gen. Tech. Rep. PSW-STR-184. 2002.

Appendix 1. Summary of grazing management objectives and remedial activities by management unit.

Table 1. Summary of Grazing Objectives By Management Unit

Management Unit Focus	Management Units (See Figure _3_)	Target Species	Management Objectives	Monitoring Events	Remedial Actions
Short Grass	Unit 31 Unit 32 Scale Garcia Strip Garcia Farming	Burrowing Owl San Joaquin kit fox Pallid bat Horned lark	<p>Primary Objective: At least 75% of all management units with under 3 inches of standing annual vegetation by May 1.</p> <p>Secondary Objective: No more than 25% of such management units may have an RDM of less than 300 lbs/acre.</p>	<p>Spring grass height measurements are the primary monitoring event for these management units.</p> <p>RDM monitoring will also be required to ensure that management units are not overutilized.</p>	<ol style="list-style-type: none"> 1. If more than 25% of the management unit exceeds 3 inches in grass height during the owl nesting season (May-September), adjustments in the number of animals and/or distribution shall be made with the objective being to reduce vegetation height. 2. If the year prior to measuring fall RDM is an average production year, and >25% of the management unit is over 750 lbs/ac, distribution will be adjusted to more fully utilize the areas which are mapped in those classes. 3. However, if the year prior to measuring fall RDM is an above-average production year, adjustments in stocking rate shall be made with caution, increasing the number of stockers and/or replacement heifers (rather than increases to base cow herd) to increase utilization. 4. If more than 25% of management unit falls below 300 lbs/acre at any time, then animals will be taken off the management unit and not turned out until <ol style="list-style-type: none"> a. At least 90% of the management unit meets or exceeds 500 lbs/acre RDM, And b. No more than 10% of the management units falls below 300 lbs/acre, including green up.
Upland Game	White Rock Feed Lot (potentially)	Doves Quail	<p>Primary Objective: Between 25% and 75% of the management unit will be less than 750 lbs RDM per acre by September 1.</p>	<p>Monitoring biomass on or about September 1 will be the primary monitoring event; RDM monitoring will also be done.</p> <p>Spring/summer biomass measurements will be consistent with meeting September 1 biomass requirements and Fall RDM requirements.</p> <p>Spring sampling and mapping would be a remedial monitoring event if Fall RDM</p>	<ol style="list-style-type: none"> 1. If more than 25% of the management unit falls below 500 lbs/acre at any time then animals will be taken off the management unit and not turned out until: <ol style="list-style-type: none"> a. At least 50% of the management unit meets or exceeds 500 lbs/acre and, b. No more than 10% of the management unit falls below 300 lbs/acre, including green up. 2. If more than 25% of the management unit exceeds 750 lbs/acre during summer, adjustments in the number and/or distribution of animals shall be made to meet RDM requirements; 3. Spring biomass monitoring will performed in the following year. 4. If the year prior to measuring fall RDM is an average year, and >25% of the management unit is over 750 lbs/ac, distribution will be adjusted to more fully utilize the areas which are mapped in

Table 1. Summary of Grazing Objectives By Management Unit

Management Unit Focus	Management Units (See Figure _3_)	Target Species	Management Objectives	Monitoring Events	Remedial Actions
				objectives are not met.	those classes. However, if the year prior to measuring fall RDM is an above-average production year, adjustments in stocking rate should be made with caution, increasing the number of stockers and/or replacement heifers (rather than increases to base cow herd) to increase utilization.
Woodland	Garcia Little Garcia Red Tank Airplane Horse Headquarters, Thousand Acre Barrett	Blue oak and juniper woodlands	<p>Primary Objective: At least 75% of the management units with RDM of more than 1,000 lbs/acre.</p> <p>Secondary Objective: No more than 10% of the management unit with RDM less than 300 lbs/acre RDM</p>	<p>Fall RDM mapping is the primary monitoring event for these management units.</p> <p>Spring biomass monitoring may be necessary if the primary objective is not met.</p>	<ol style="list-style-type: none"> 1. If either the Primary or Secondary management objectives are not satisfied: <ol style="list-style-type: none"> a. Animals will be taken off the management unit and not turned out until: <ol style="list-style-type: none"> i. At least 90% of the management unit meets or exceeds 1,000 lbs/acre RDM, And ii. No more than 10% of the management unit falls below 300 lbs/acre, including green up. b. Spring biomass monitoring will be performed in the following year. 2. If more than 10% of the management unit is below 500 lbs/ac RDM at any time, adjustments in distribution shall be made to meet the RDM requirements. 3. If more than 25% of the management unit falls below 1,000 lbs/ac RDM for two years in a row, the management unit will be rested the following year.

Figure 1: Premises Included in Lease Agreement

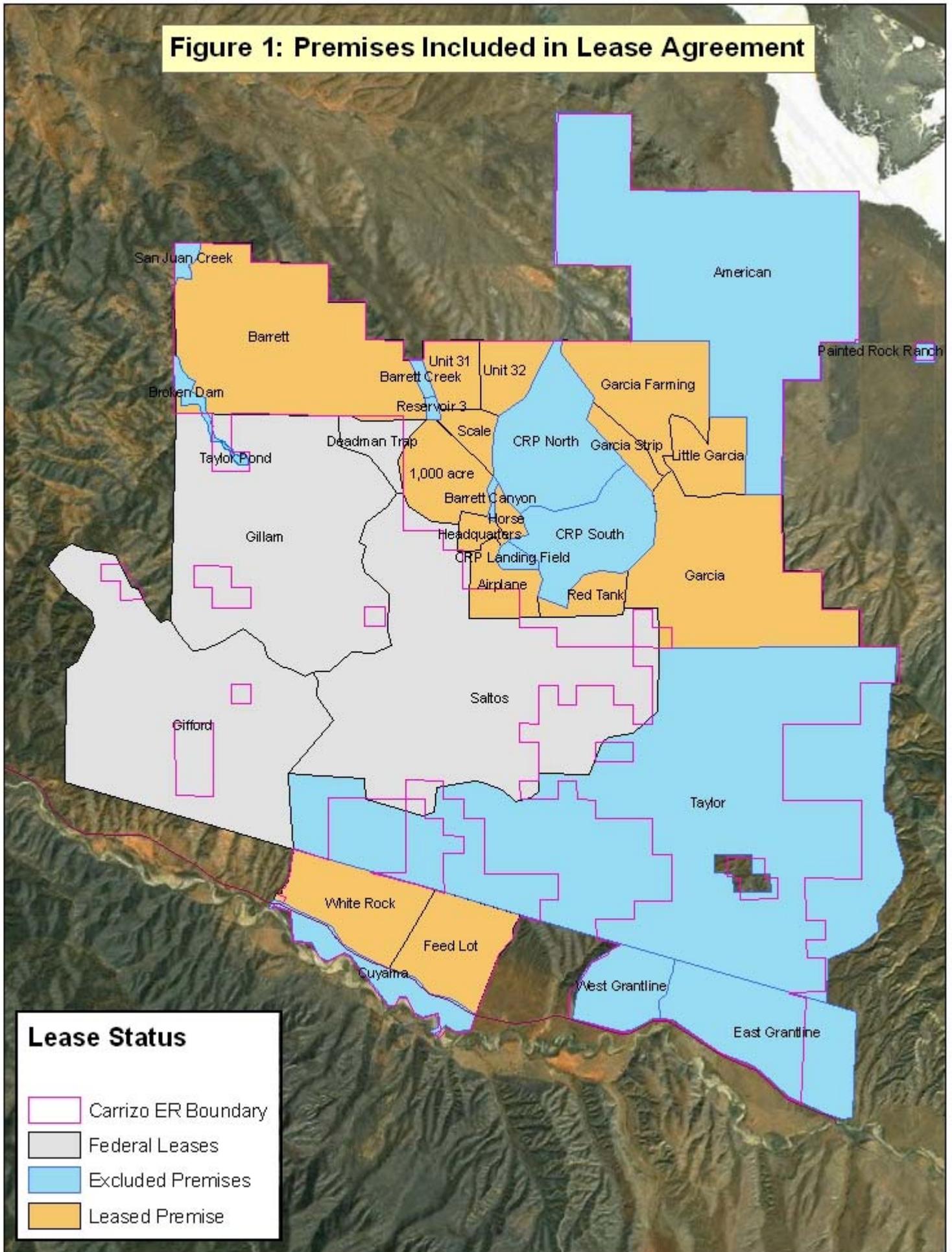


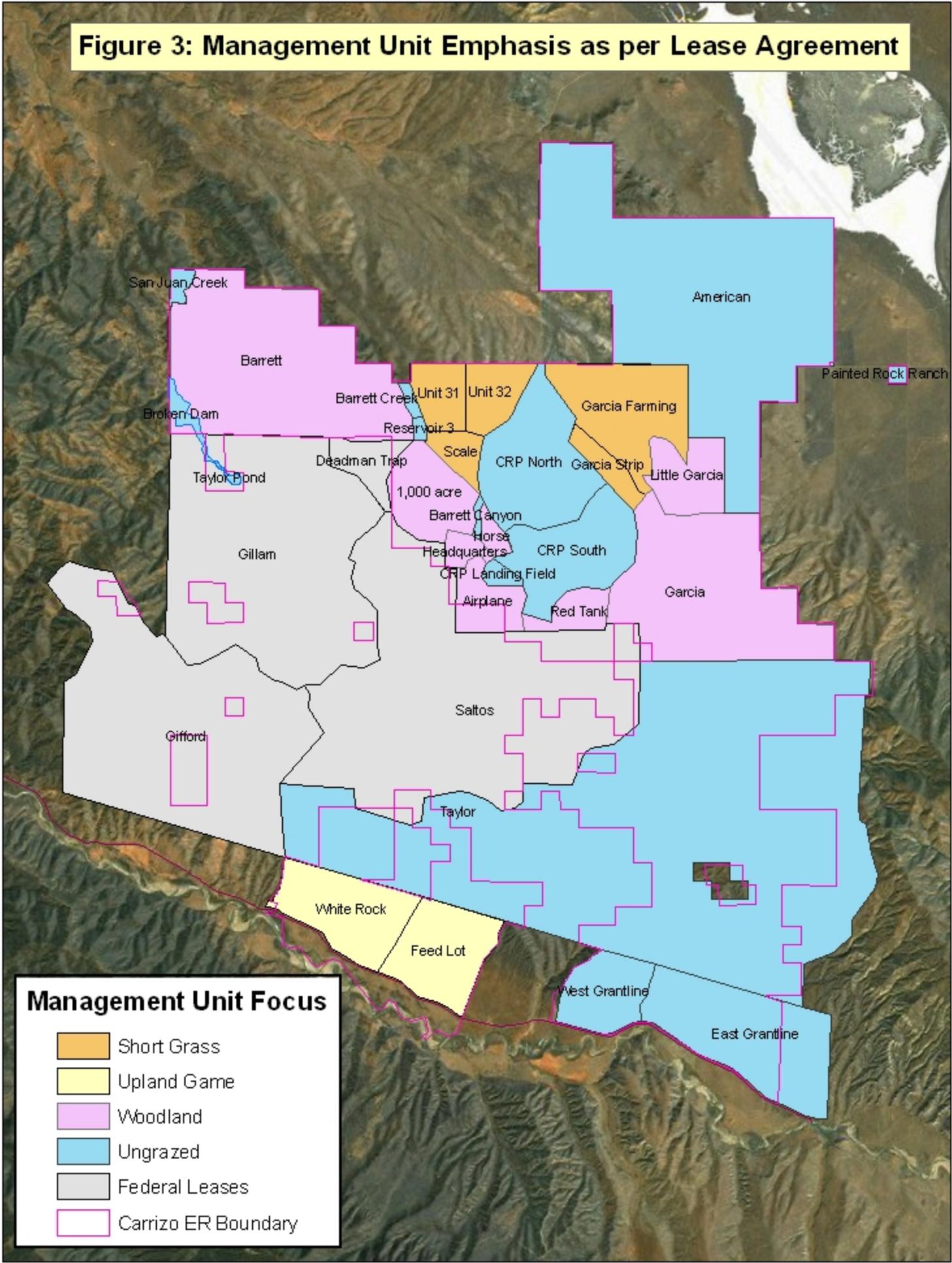
Figure 2: Main Ranch Complex - Excluded Premises



Lease Status

 HQ Excluded Premises

Figure 3: Management Unit Emphasis as per Lease Agreement



Management Unit Focus

- Short Grass
- Upland Game
- Woodland
- Ungrazed
- Federal Leases
- Carrizo ER Boundary

Urbemis 2007 Version 9.2.4

Detail Report for Summer Operational Unmitigated Emissions (Pounds/Day)

File Name: C:\Work Stuff\Carrizo Plain Reserve\Grazing Lease\Second Draft Lease\Draft ND\Final Draft ND\ChimineasRanch-1RoundTripOn13mileLengthOfUnpavedRoad.urb924

Project Name: Chimineas Ranch - 1 Round Trip on a 13 mile length of unpaved road

Project Location: San Luis Obispo County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Ranch	0.03	0.03	0.27	0.00	52.00	11.03	23.35
TOTALS (lbs/day, unmitigated)	0.03	0.03	0.27	0.00	52.00	11.03	23.35

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2013 Temperature (F): 75 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Ranch		2.00	acres	1.00	2.00	26.00
					2.00	26.00

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	41.6	0.7	99.1	0.2

Page: 2

5/27/2011 1:36:21 PM

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Truck < 3750 lbs	18.8	1.6	92.0	6.4
Light Truck 3751-5750 lbs	19.9	0.5	99.0	0.5
Med Truck 5751-8500 lbs	8.0	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	1.2	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	5.2	53.8	46.2	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.7	0.0	88.2	11.8

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	0.0	0.0	0.0	0.0	0.0	0.0
Rural Trip Length (miles)	0.0	0.0	0.0	13.0	0.0	0.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	100.0	0.0	0.0			

% of Trips - Commercial (by land use)

Page: 3

5/27/2011 1:36:21 PM

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Ranch				100.0	0.0	0.0

Operational Changes to Defaults

- The percentage of paved roads changed from 100% to 0%
- The percentage of unpaved roads changed from 0% to 100%
- Home-based work urban trip length changed from 13 miles to 0 miles
- Home-based work rural trip length changed from 13 miles to 0 miles
- Home-based shop urban trip length changed from 5 miles to 0 miles
- Home-based shop rural trip length changed from 5 miles to 0 miles
- Home-based other urban trip length changed from 5 miles to 0 miles
- Home-based other rural trip length changed from 5 miles to 0 miles
- Commercial-based commute urban trip length changed from 13 miles to 0 miles
- Commercial-based non-work urban trip length changed from 5 miles to 0 miles
- Commercial-based non-work rural trip length changed from 5 miles to 0 miles
- Commercial-based customer urban trip length changed from 5 miles to 0 miles
- Commercial-based customer rural trip length changed from 5 miles to 0 miles