Topaz Solar Farm Conservation Lands Habitat Mitigation and Monitoring Plan

2013 Annual Report

Topaz Preserve
California Department of Fish and Wildlife
Region 4
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Table of Contents

Table of Figures

Table of Tables

Introduction

The Topaz Solar Farm Project (Project) is a solar energy development project involving installation of photovoltaic (PV) modules and related facilities over an area approximately 3,510 acres in size. The Project was evaluated under the California Environmental Quality Act (CEQA) in an Environmental Impact Report (EIR) entitled "*Topaz Solar Farm Project Conditional Use Permit DRC2008‐00009 (State Clearinghouse No. 2008091026)*" certified by the County of San Luis Obispo (County) on July 12, 2011. Because of Project related impacts to San Joaquin kit fox (*Vulpes macrotis mutica*), a species listed as threatened under the California Endangered Species Act (CESA), the Project also secured incidental take coverage from the California Department of Fish and Wildlife (CDFW) in the form of a State Incidental Take Permit (2081-2011-04-04), executed on September 2, 2011. The Incidental Take Permit (ITP) required, in part, the permanent protection and management of 12,147 acres of Habitat Management (HM) lands, also known as "mitigation lands" or "compensation lands" in associated documents, including this report. The Permittee (FirstSolar initially, then MidAmerican after the project was sold to the latter entity) had several options in the ITP for "permanent protection" of the compensation lands. They elected to transfer the lands in fee to CDFW after first recording a Conservation Easement with non-merger language in favor of CDFW. The balance of the HM lands was transferred to CDFW in 2013. The total 12,168 acres will collectively be referred to as the Topaz Preserve for the purposes of this report. CDFW will formally designate these lands as an Ecological Reserve at some time in the future and the name will be changed. The County and U.S. Fish and Wildlife Service (Biological Opinion 81420-2011-F-0625 issued to the Army Corps of Engineers) also required habitat compensation lands to comply with CEQA, the Clean Water Act, and the Federal Endangered Species Act, respectively. The permanent protection of the 12,168 acres also satisfies a portion of the mitigation obligations set forth by these agencies with permitting authority over the Project.

The ITP allowed the HM lands to be transferred in phases. Specifically, for each of the six construction phases of the Project, prior to initiating ground or vegetation disturbing activities or other Covered Activities for that phase, the Permittee was required to acquire and permanently preserve at least 3.45 acres of HM lands for each acre of Covered Species habitat expected to be permanently impacted during the next construction phase, plus a 15% buffer. As of December 31, 2013, all phases (Phases 1-6) had transferred to CDFW (Figure 1). Table 1 below shows the timing of each land transaction. For most of 2013, approximately 4,977 acres, or 41% of the total mitigation lands were owned and managed by CDFW.

Table 1. Timing of HM Lands Transfer to CDFW during 2013.

Phase	**Date Recorded**	**Mitigation Acres**
Phase 5A	May 16, 2013	606.59
Phase 5B	July 23, 2013	1,361.22
Phase 6A	July 23, 2013	1,505.65
Phase 6B	July 23, 2013	76.09
Total		3,549.55

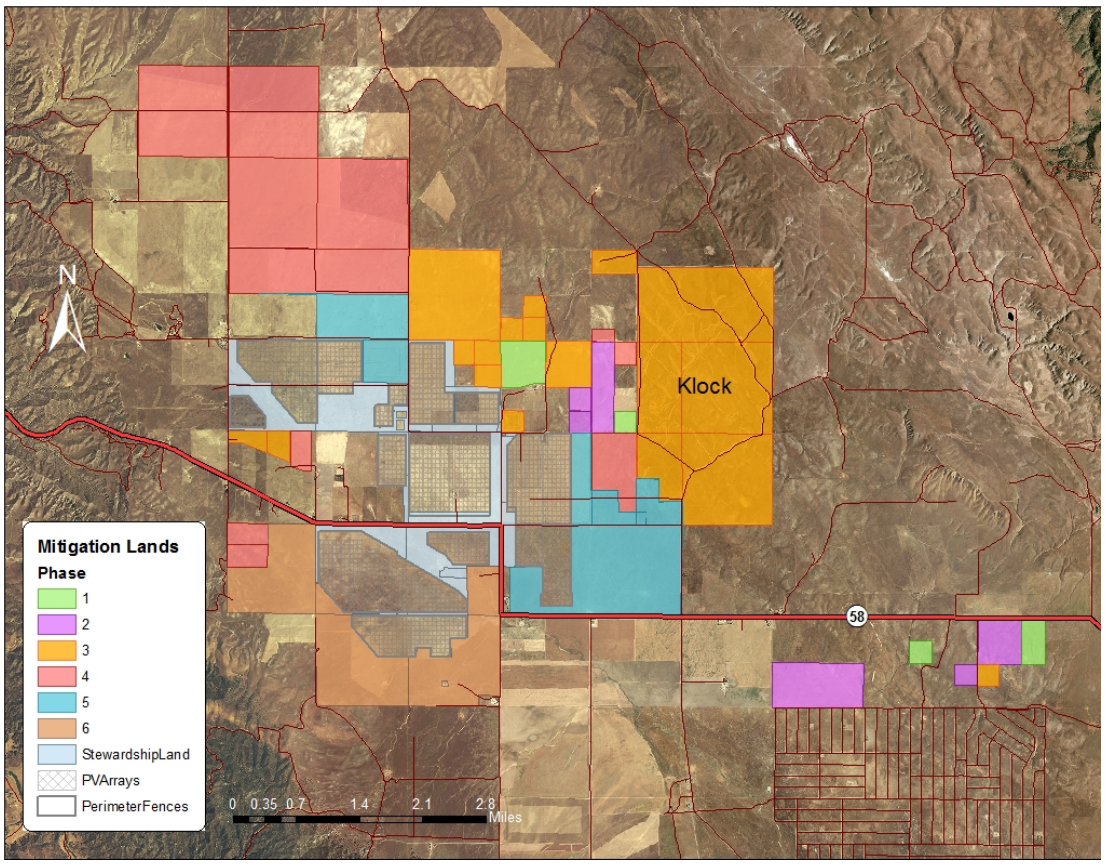

Figure 1. Topaz mitigation lands and phasing map. As of December 2013, all phases had transferred to CDFW.

It was anticipated that all lands would transfer to CDFW by the end of the 2012 calendar year but this did not occur. The balance of lands was transferred in 2013 with the final phases recording on July 23, 2013. As a result, not all of the annual goals in the Topaz Habitat Mitigation and Monitoring Plan (HMMP) were accomplished. This Annual Report provides information of annual activities and habitat conditions for lands owned and administered by CDFW in 2013.

Drought conditions in the northern Carrizo Plain delayed several management activities including rare plant surveys, weed surveys and shrub restoration plantings. The rainfall totals for the 2012 and 2013 rain year (July1 –June 30) were 2.88 inches on the Carrizo Plain National Monument and 4.16 at the La Panza weather stations, respectively. These values are well below the rainfall averages for these areas.

As of January 1, 2013, the California Department of Fish and Game (DFG or CDFG) became the California Department of Fish and Wildlife (CDFW). Please note that references to CDFG or DFG in previously referenced documents (including but not limited to the HMMP) are references to CDFW.

Surveys

Biologists from CDFW visited the Preserve lands frequently in 2013 to conduct surveys for bats, birds and other wildlife and to assess range condition. CDFW biologists conducted biological surveys throughout the year. In July and October, spotlighting surveys for San Joaquin kit fox were conducted on the property, as well as bird and wildlife surveys.

Task Reporting Requirement

The Topaz Solar Farms Mitigation and Monitoring Plan prescribes management goals and tasks for the Preserve lands. One of these tasks is production of this HMMP annual report, as stated in Section 6.1. GM Task2a, which also prescribes the content of this report:

> **General Monitoring Task 2a**: The Annual Report for the Topaz Solar Farms Preserve land shall be written by the Preserve Land Manager and presented to CDFG, USFWS, and the Conservation Groups. All monitoring results from Tasks specified in this HMP shall be supplied to the Preserve Land Manager to be incorporated into the Annual Report. The report shall be prepared to professional standards and sent as a printed document or electronic documents to CDFG, USFWS, and the Conservation Groups by February 1st of the year following reporting period. Information in the report shall include a discussion of Preserve land condition, status of special status species, a residue pattern map showing range condition, results from tasks that require reporting, and a checklist showing completion or status of Task Checklist.

Task Status

Tasks are defined in the Management Plan as follows: "Tasks are the individual projects or work elements which implement the goal and are useful in planning operation and maintenance budgets." (Section 6.2 (7)).

This annual report includes information regarding management tasks. The following task checklist (Table 2) presents each task and whether it was addressed during the reporting period. Following the task checklist, the management plan sections that outline the tasks are provided, abbreviated for convenience. This outline includes results, information, and notes regarding the status of each task. The results, information, and notes are in ***boldface italics*** within the outline.

Task Check List

Table 2. HMMP TASK CHECK LIST. A summary of tasks required by the HMMP is provided; including whether it was conducted in 2013, the persons that conducted each task, and the persons responsible to make sure the task was completed.

Task	Plan reference	Source element	Task conducted by	Responsible Party	Frequency	Conducted in 2013
Biological Elements						
SJKF Task 1a Maintain kit fox habitat	6.3.1	San Joaquin kit fox	Manager Grazing operator	Preserve Manager	Ongoing	Yes
SJKF Task 2a Coordinate depredation	6.3.1	San Joaquin kit fox	Preserve Manager	Preserve Manager	As needed	N/A
SJKF Task 3a Inspect escape dens	6.3.1	San Joaquin kit fox	Qualified biologist	Preserve Manager	Three years	N/A
SJKF Task 3b Repair escape dens	6.3.1	San Joaquin kit fox	Qualified biologist	Preserve Manager	Three years	N/A
SJKF Task 4a Monitor kit fox	6.3.1	San Joaquin kit fox	Qualified biologist	Preserve Manager	Annual	Yes
SKJF Task 5a Evaluate kit fox status	6.3.1	San Joaquin kit fox	Qualified biologist	Preserve Manager	Annual	Yes
BNLL Task 1a Reptile survey	6.3.2	Blunt-nosed leopard lizard	Qualified biologist	Preserve Manager	Five years	N/A
GKR Task 1a Look for GKR	6.3.3	Giant kangaroo rat	Qualified biologist	Preserve Manager	Annual	Yes
GKR Task 1b Map GKR	6.3.3	Giant kangaroo rat	Qualified biologist	Preserve Manager	Annual	Yes

Task	Plan reference	Source element	Task conducted by	Responsible Party	Frequency	Conducted in 2013
GKR Task 2a Discuss in annual report	6.3.3	Giant kangaroo rat	Qualified biologist	Preserve Manager	Annual	Yes
GKR Task 3a Manage grassland	6.3.3	Giant kangaroo rat	Grazing operator	Preserve Manager	Annual	Yes
FS Task 1a Protect fairy shrimp pools	6.3.4	Fairy shrimp	Grazing operator	Preserve Manager	Annual	N/A
AS Task 1a Look for antelope squirrel	6.3.5	Antelope squirrel	Qualified biologist	Preserve Manager	Five years	N/A
MP Task 1a Look for mountain plover	6.3.6	Mountain plover	Qualified biologist	Preserve Manager	Five years	Yes
BUOW Task 1a Maintain burrowing owl habitat	6.3.7	Burrowing owl	Grazing operator	Preserve Manager	Annual	Yes
BUOW Task 2a Look for burrowing owls	6.3.7	Burrowing owl	Qualified biologist	Preserve Manager	Five years	Yes
SSB Task 1a Look for and report special status birds	6.3.8	Special status birds	Qualified biologist	Preserve Manager	Five years	Yes
SSA Task 1a Protect toad pools	6.3.9	Special status amphibian	Preserve Manger/ grazing operator	Preserve Manager	Ongoing	N/A
SSA Task 2a Look for amphibians	6.3.9	Special status amphibian	Qualified biologist	Preserve Manager	Five years	N/A
Pronghorn and Tule Elk Task 1a Fence enhancement and removal	6.3.10	Pronghorn and Tule Elk	Fence contractor	Preserve Manager	Complete in three years	Yes

Task	Plan reference	Source element	Task conducted by	Responsible Party	Frequency	Conducted in 2013
Pronghorn and Tule Elk Task 1b Seed salt bush	6.3.10	Pronghorn and Tule Elk	Seeding contractor	Preserve Manager	Once	No
Pronghorn and Tule Elk Task 1c Maintain shrub cover	6.3.10	Pronghorn and Tule Elk	Grazing operator	Preserve Manager	Ongoing	No
Pronghorn and Tule Elk Task 1d Allow supplemental feed	6.3.10	Pronghorn and Tule Elk	Pronghorn advocates	Preserve manager	As needed	Yes
Rare Plants Task 1a Identify rare plant populations	6.3.11	Rare plants	Qualified biologist	Preserve Manager	Five years	No
Grassland Task 1a Graze grassland per standards	6.3.12	Annual grassland	Grazing operator	Preserve Manager	Annual	Yes
Grassland Task 2a Protect rare plants	6.3.12	Annual grassland	Preserve Manager	Preserve Manager	Ongoing	N/A
Grassland Task 3a Control noxious weeds	6.3.12	Annual grassland	Herbicide applicator	Preserve Manager	Ongoing	N/A
Grassland Task 5a Monitor grassland habitat	6.3.12	Annual grassland	Preserve Manager	Preserve Manager	Annual	No
Buckwheat Scrub Task 1a Manage grazing to maintain buckwheat scrub habitat	6.3.12	Buckwheat scrub	Grazing operator	Preserve Manager	Annual	N/A
Buckwheat Scrub Task 2a Adjust grazing duration and intensity	6.3.12	Buckwheat scrub	Grazing operator	Preserve Manager	Annual	N/A
Vernal Pool Task 1a Time grazing to protect pools	6.3.12	Vernal pool	Grazing operator	Preserve Manager	Annual	N/A

Task	Plan reference	Source element	Task conducted by	Responsible Party	Frequency	Conducted in 2013
Vernal Pool Task 1b. Remove exotic aquatic animals	6.3.12	Vernal pool	Qualified biologist	Preserve Manager	Ongoing	N/A
Vernal Pool Task 1c Avoid pesticides	6.3.12	Vernal pool	Preserve Manager	Preserve Manager	Ongoing	N/A
Bunchgrass Task 1a Manage vegetation	6.3.12	Bunchgrass grassland	Grazing operator	Preserve Manager	Annual	No
Management Elements						
Grazing Task 1a. Meet RDM targets	6.4.1	Grazing	Grazing operator	Preserve Manager	Annual	Yes
Grazing Task 1b Predict range condition, adjust stocking rate	6.4.1	Grazing	Grazing operator	Preserve Manager	Annual	Yes
Grazing Task 2a Move salt licks	6.4.1	Grazing	Grazing operator	Preserve manager	Annual	N/A
Grazing Task 3a Fire management	6.4.1	Grazing	Grazing operator	Preserve Manager	Ongoing	Yes
Grazing Task 4a Prevent erosion	6.4.1	Grazing	Grazing operator	Preserve Manager	Annual	Yes
Grazing Task 5a Promote soil stability	6.4.1	Grazing	Grazing operator	Preserve Manager	Annual	Yes
Grazing Task 6a Manage restoration areas	6.4.1	Grazing	Grazing operator	Preserve Manager	Annual	Yes
Grazing Task 7a Fence construction	6.4.1	Grazing	Contractor	Preserve Manager	As needed	Yes

Task	Plan reference	Source element	Task conducted by	Responsible Party	Frequency	Conducted in 2013
Grazing Task 8a Corral construction	6.4.1	Grazing	Contractor	Preserve Manager	As needed	N/A
Habitat Restoration Task 1a End farming	6.4.2	Habitat restoration	Preserve Manager	Preserve Manager	Ongoing	Yes
Habitat Restoration Task 1b Increase native species	6.4.2	Habitat restoration	Grazing operator	Preserve Manager	Annual	N/A
Habitat Restoration Task 2a Seed salt bush	6.4.2	Habitat restoration	Seeding contractor	Preserve Manager	Once	No
Habitat Restoration Task 2b Maintain shrub cover	6.4.2	Habitat restoration	Grazing operator	Preserve Manager	Annual	Yes
Habitat Restoration Task 2c Measure salt bush density, remediate if necessary	6.4.2	Habitat restoration	Qualified biologist	Preserve Manager	Five years	No
Habitat Restoration Task 3a Conduct vegetation sampling in restoration areas	6.4.2	Habitat restoration	Rangeland manager	Preserve Manager	Annual	No
Habitat Restoration Task 4a Remove fences	6.4.2	Habitat restoration	Contractor	Preserve Manager	Complete within three years	Yes
Habitat Restoration Task 5a Enhance fences	6.4.2	Habitat restoration	Contractor	Preserve Manager	Complete within three years	Yes
Habitat Restoration Task 6a Allow appropriate research	6.4.2	Habitat restoration	Biologist	Preserve Manager	Ongoing	Yes
Habitat Restoration Task 7a Remove abandoned compounds	6.4.2	Habitat restoration	Contractor	Preserve Manager	Once	Yes

Task	Plan reference	Source element	Task conducted by	Responsible Party	Frequency	Conducted in 2013
Habitat Restoration Task 8a No trespassing signs	6.4.2	Habitat restoration	Preserve Manager or contractor	Preserve Manager	Ten years	Yes
Habitat Restoration Task 8b Interpretative sign	6.4.2	Habitat restoration	Contractor	Preserve Manager	Fifteen years	No
Weed Task 1a Weed surveys	6.4.3	Weeds	Qualified biologist	Preserve Manager	Two years	No
Weed Task 1b Control infestations	6.4.3	Weeds	Herbicide applicator	Preserve Manager	As needed	No
Weed Task 1c Prevent introductions	6.4.3	Weeds	Preserve Manager	Preserve Manager	Ongoing	N/A
Fire Task 1a Graze to manage fuels	6.4.4	Fire Management	Preserve Manager	Preserve Manager	Annual	N/A
Fire Task 1b Mow firebreaks	6.4.4	Fire Management	Preserve Manager	Preserve Manager	Annual	N/A
Feral animal control Task 1a Consult with CDFW	6.4.5	Feral animal control	DFG/ Federal trapper	Preserve Manager	As needed	N/A
Predatory Animal Task 1a Consult with CDFW	6.4.5	Predatory animal control	Preserve Manager	Preserve Manager	As needed	N/A
Maintenance Elements						
Ranch Roads Task 1a Maintain roads	6.5.1	Ranch roads	Contractor	Preserve Manager	As needed	N/A
Ranch Roads Task 2a Survey for special status animals	6.5.1	Ranch roads	Qualified biologist	Preserve Manager	As needed	N/A

Task	Plan reference	Source element	Task conducted by	Responsible Party	Frequency	Conducted in 2013
Ranch Roads Task 2b Protect special status animals	6.5.1	Ranch roads	Contractor	Preserve Manager	As needed	N/A
Ranch roads Task 3a Ranch Road Plan	6.5.5	Ranch roads	Preserve Manager	Preserve Manager	Once	Yes
Water Facilities Task 1a Regular maintenance	6.5.2	Watering facilities	Contractor	Preserve Manager	As needed	Yes
Water Facilities Task 2a Install watering sites	6.5.2	Watering facilities	Contractor	Preserve Manager	As feasible	Yes
Water Facilities Task 3a Pronghorn waterers	6.5.2	Watering facilities	Contractor	Preserve Manager	At least one per year for ten years	Yes
Fence Task 1a Maintain fences	6.5.3	Fences	Contractor	Preserve Manager	Annual	Yes
Monitoring Plan						
General Monitoring Task 1a Complete annual checklist	7.1	General monitoring	Preserve Manager	Preserve Manager	Annual	Yes
General Monitoring Task 2a Annual Report	7.1	General monitoring	Preserve Manager	Preserve Manager	Annual	Yes
General Monitoring Task 2b Annual meeting	7.1	General monitoring	Preserve Manager	Preserve Manager	Annual	No
Rangeland Monitoring Task 1a Rangeland inspection	7.4	Rangeland monitoring	Certified Range Manager	Conservation Easement Holder	Annual	Yes
Rangeland Monitoring Task 1b Assess rangeland condition	7.4	Rangeland monitoring	Certified Range Manager	Preserve Manager	Annual	Yes

Task	Plan reference	Source element	Task conducted by	Responsible Party	Frequency	Conducted in 2013
Adaptive Management						
Adaptive Management Task 1a Assimilate and report	8.1.1	Adaptive management	Qualified biologist/ Preserve Manager	Preserve Manager/ Conservation Easement Holder	Annual	Yes
Adaptive Management Task 1b Implement approved changes	8.1.1	Adaptive management	Preserve Manager	Preserve Manager	Annual	Yes
Adaptive Management Task 1c	8.1.1	Adaptive management	Preserve Manager	Preserve Manager	Annual	Yes

Management Plan Task Outline with Results (Section 6 of HMMP)

6.3 Biological Elements: Goals

6.3.1 Biological Element: San Joaquin Kit Fox

SJKF Goal 1: Maintain and enhance habitat.

SJKF Task 1a: Implement grazing and vegetation management

Grazing of annual grasses by cattle did not occur on the Topaz Preserve. Residual dry matter (RDM) levels were within the specified parameters, therefore grazing was not needed to maintain or enhance kit fox habitat on the Preserve lands.

SJKF Goal 2: Manage the Preserve land to reduce the impact of predators on San Joaquin kit fox.

SJKF Task 2a: Coordinate appropriate depredation activities when predation of SJKF is shown to need intervention.

No depredation activities were necessary.

SJKF Goal 3: Maintain artificial escape dens installed as part of the Topaz Solar Farm applicant proposed measures on Preserve lands.

SJKF Task 3a: Inspect condition of each escape den pipe, soil cover, and entrance once every three years

This goal does not apply to CDFW as no artificial escape dens were installed on the Topaz Preserve. Escape dens were installed on the Topaz project and stewardship land in 2013.

Task 3b: If escape dens are not functioning to allow kit fox entrance and exclude larger canids, repair escape den.

This goal does not apply to CDFW as no artificial escape dens were installed on the Topaz Preserve. Escape dens were installed on Topaz project and stewardship land in 2013.

SJKF Goal 4: Monitor the population of San Joaquin kit fox on the Preserve land.

SJKF Task 4a: Conduct annual monitoring surveys on the Preserve land to examine presence, population trends, and behavior of San Joaquin kit fox.

Spotlighting surveys were conducted in May and October 2013 on the Topaz Preserve. Two San Joaquin kit foxes were detected during spotlighting surveys. A standardized spotlighting route was established in August 2013, following the completion of land transfer.

January 3-15, 2013 CDFW and Endangered Species Recovery Program (ESRP) staff live-trapped and fitted GPS collars on 10 kit foxes on the former Klock parcel as part of a joint project investigating the use of grazed and ungrazed grassland habitat by kit foxes. Specific objectives of the project are to (1) collect

information on kit fox survival, mortality sources, reproduction, den use, home range use, habitat selection, movements, and diet in the area, (2) use this information to develop or refine management strategies for these lands and surrounding conservation areas, and (3) use this information to develop or refine regional conservation efforts, particularly the targeting of additional habitat for protection and the establishment of linkages to other protected lands.

SJKF Goal 5: Evaluate data collected and discuss in relation to SJKF and the management of its habitat.

SJKF Task 5a**:** Annual Report to include San Joaquin kit fox data collected and discussion.

Although only 2 San Joaquin kit foxes were sighted during spotlighting surveys, it was noted that the sightings occurred on the former Klock property in areas previously enrolled in the Conservation Reserve program (CRP) where grass height was taller than on surrounding lands. A San Joaquin kit fox habitat use and movement study was conducted in 2013 and further research is planned for the Preserve lands in 2014. Ten foxes were fitted with GPS collars on the former Klock property. So far the number of foxes detected during spotlighting has not been a good indication of the number of foxes using the property. Standardized camera trapping may be initiated in 2014 to supplement spotlighting data.

Day and night telemetry by CDFW and ESRP staff from January through June 2013 yielded location data on all of the collared foxes (Fig. 2). Two individuals were found dead, both likely bobcat predations. The kit fox GPS data have provided an abundance of information about kit fox movements on the Preserve lands. Additional information on foxes using Topaz project and stewardship lands as well as the CVSR lands would be very beneficial in understanding kit fox use of the California Valley area on a population-level scale.

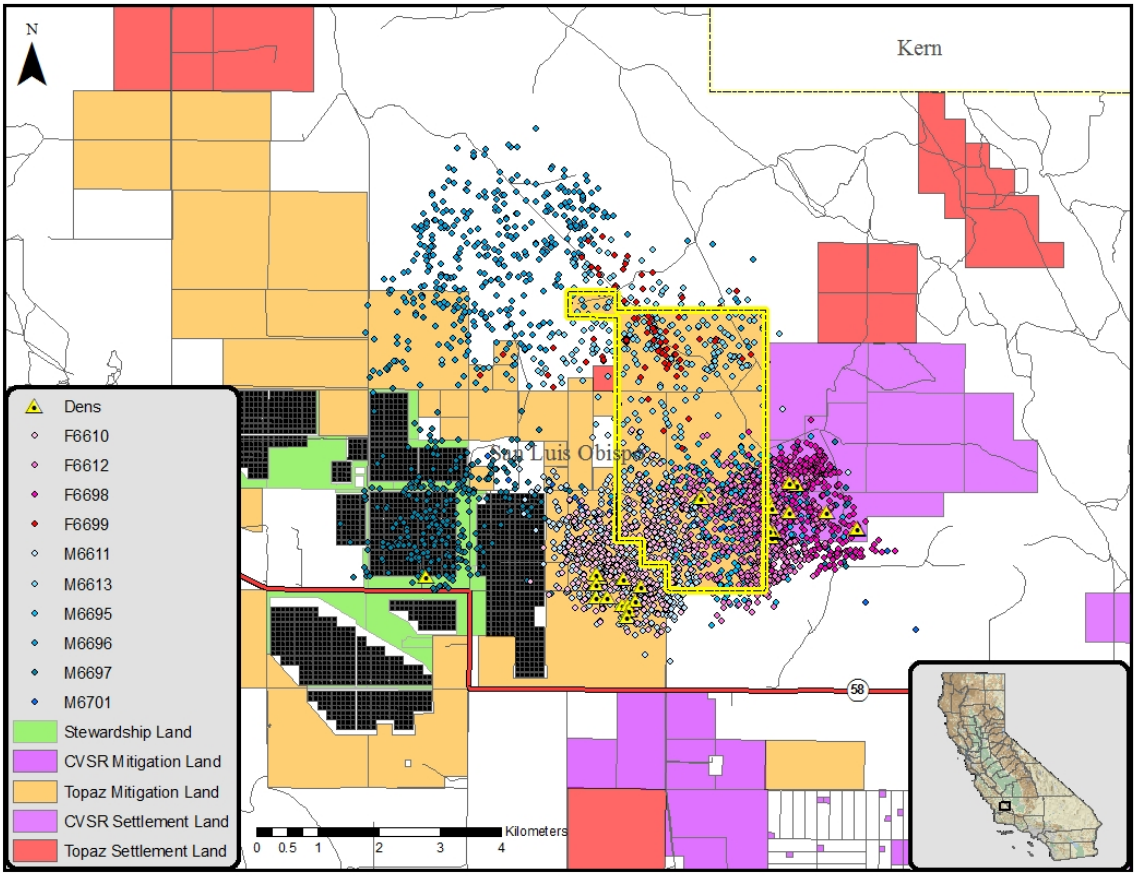

Figure 2. Locations for GPS collared San Joaquin kit foxes in relation to the Topaz Preserve lands.

6.3.2 Biological Element: Blunt-nosed Leopard Lizard

BNLL Goal 1: Survey for reptiles on Preserve land once every five years to inform management decisions.

BNLL Task 1a: Conduct visual inspections on the Preserve land for reptiles once every five years.

BNLL surveys were not required to be conducted in 2013. Standardized BNLL surveys will be conducted Preserve wide in 2014.

6.3.3 Biological Element: Giant Kangaroo Rat

GKR Goal 1: Preserve and protect giant kangaroo rat populations on the Preserve land.

GKR Task 1a: Monitor distribution and density of precincts of GKR populations on the Preserve land annually.

Giant kangaroo rat precincts were observed on Preserve lands in 2013. GKR sign was not extensive and was not individually mapped. The area surveyed is circled in yellow in Figure 2 below. Standardized surveys will be conducted in

2014 for GKR precincts. Active precincts will be marked and recorded using a GPS. Additionally, trapping may be used to confirm GKR activity.

GKR Task 1b: Prepare a map of all known localities of listed GKR on the Preserve land.

A general map of known GKR localities was prepared in 2013 (Fig. 3).

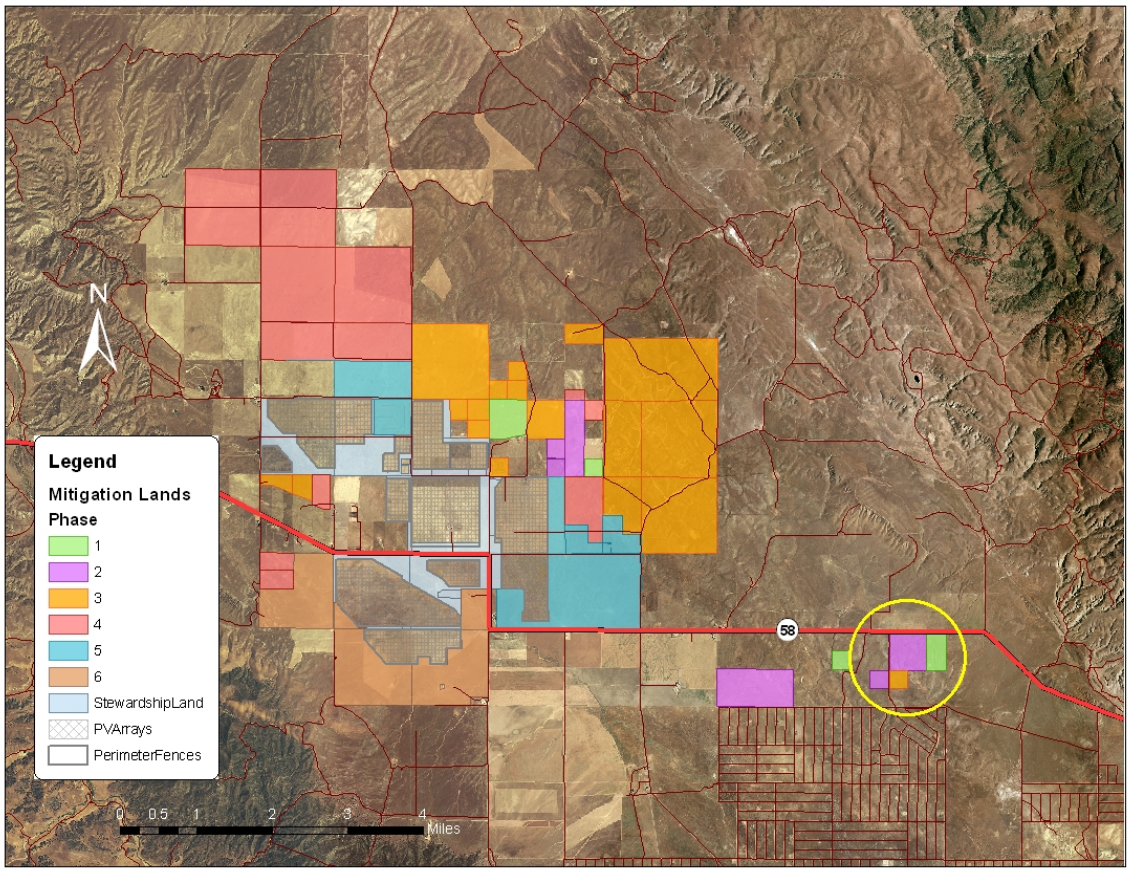

Figure 3. CDFW Preserve lands that were surveyed for GKR precincts in 2013.

GKR Goal 2: Evaluate data collected and discuss in relation to GKR and the management of its habitat.

GKR Task 2a: Annual Report.

Several of the precincts observed appeared to be active. Further surveys and exploratory small mammal trapping will be conducted in 2014 in order to resolve current GKR distribution on these parcels.

GKR Goal 3: Maintain habitat on the Preserve land in condition appropriate for use by GKR.

GKR Task 3a: Manage vegetation to promote habitat conditions preferred by GKR and other rare grassland species.

No grazing of annual grasses by cattle occurred on the Preserve lands. The range conditions were within target parameters for GKR on the Preserve lands owned and administered by CDFW.

6.3.4 Biological Element: Listed Fairy Shrimp

Fairy Shrimp Goal 1: Preserve and protect fairy shrimp habitat on the Preserve land.

FS Task 1a: Control access by livestock to fairy shrimp habitat during wet conditions when standing water is present or soil is saturated.

The vernal pool fairy shrimp (Branchinecta lynchi) is known from numerous vernal pools occurring in the Phase 6 parcels of the Preserve lands (See Figure 1). However, rainfall totals were too low in 2013 to create the favorable ponding conditions needed by these branchiopods.

6.3.5 Biological Element: Nelson's Antelope Squirrel

Antelope Squirrel Goal 1: Monitor Preserve land once every five years for the presence of Nelson's antelope squirrel (*Ammospermophilus nelsoni*) colonies.

AS Task 1a: Conduct visual inspections throughout the Preserve land for Nelson's antelope squirrel colonies.

Standardized Nelson's antelope squirrel surveys were not required to be conducted on parcels owned by CDFW in 2013. Opportunistic surveys were conducted on most of the property but no antelope squirrels were detected. Standardized antelope squirrel surveys will be conducted on the Preserve lands in 2015.

6.3.6 Biological Element: Mountain Plover

Mountain Plover Goal 1: Monitor the mountain plover wintering population on the Preserve land.

Mountain Plover Task 1a: Conduct monitoring surveys on the Preserve land once every five years for mountain plover presence.

Staff from Althouse and Meade, Inc. biological consultants surveyed areas of Preserve lands on December 8, 2013 and observed 12 birds (Fig. 4).

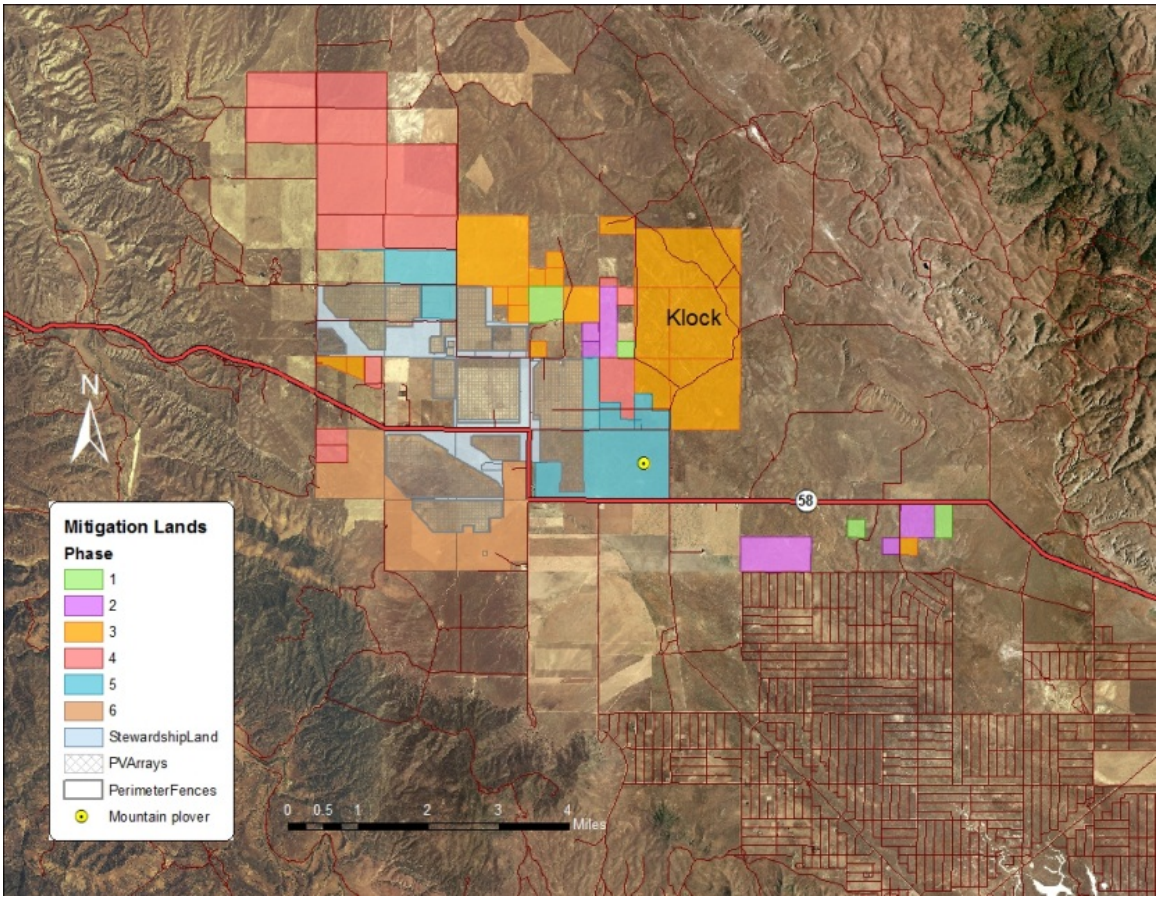

Figure 4. A flock of 12 mountain plovers was observed on Preserve lands on December 8, 2013.

6.3.7 Biological Element: Burrowing Owl

Burrowing Owl Goal 1: Maintain upland grassland habitat in appropriate condition for use by burrowing owl.

BUOW Task 1a: Manage vegetation to promote habitat conditions preferred by burrowing owl and other rare species.

Grazing of annual grasses by cattle did not occur on the Topaz Preserve. Grazing occurred prior to fee title transfer to CDFW. Low precipitation in 2013 resulted in low primary production making vegetation management by cattle grazing unnecessary to maintain appropriate burrowing owl habitat conditions over most of the property.

Burrowing Owl Goal 2: Monitor the burrowing owl population on the Preserve land.

BUOW Task 2a: Conduct surveys of the Preserve land at five year intervals to determine burrowing owl nesting locations.

Opportunistic burrowing owl surveys were conducted in 2013. Burrowing owl locations were recorded with GPS by both CDFW and Althouse and Meade, Inc. staff. The locations were subsequently plotted on a map of the area (Fig. 5). Though nesting activity was documented in 2013, no successful reproduction was documented on Preserve lands.

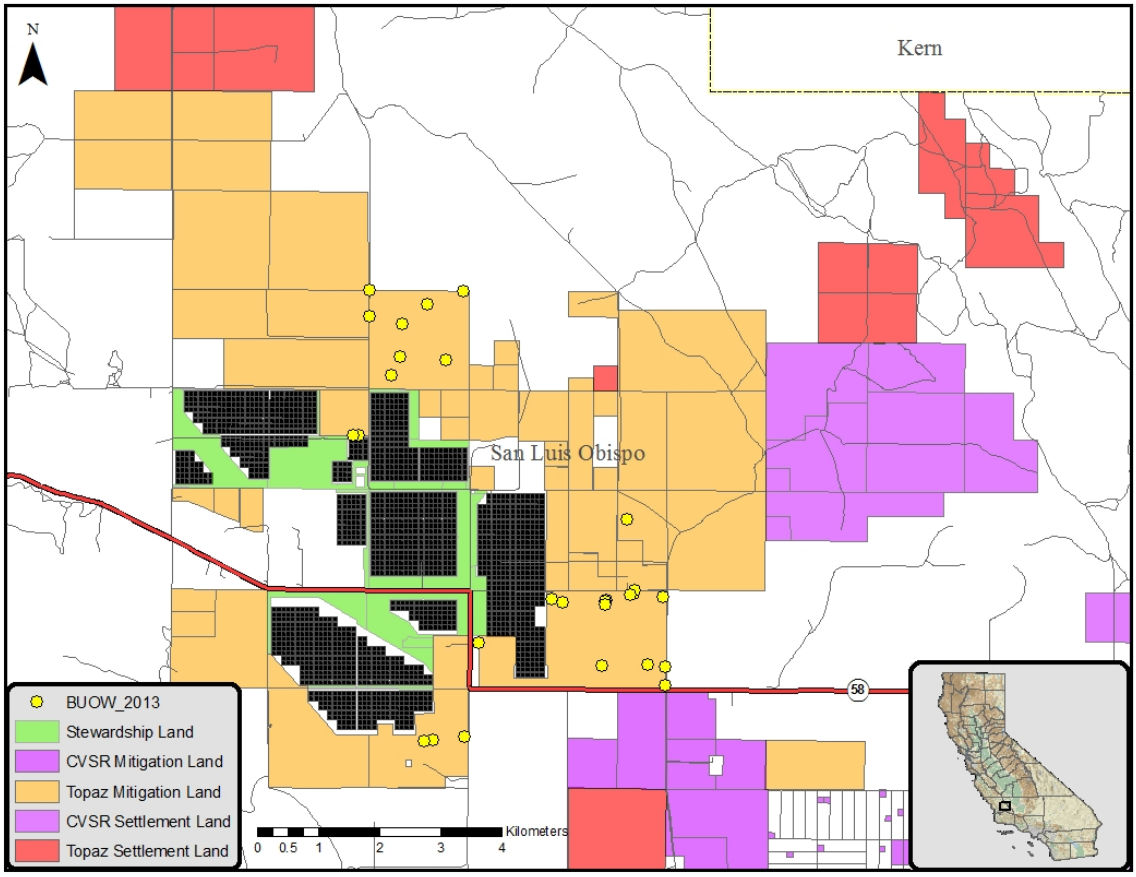

Figure 5. Burrowing owl locations on CDFW Preserve lands in 2013.

6.3.8 Biological Element: Other Special Status Birds

Special Status Birds Goal 1: Monitor use of the Preserve land by special status birds.

SSB Task 1a: Conduct bird surveys once every five years on the Preserve land in a manner suitable to detect special status bird species.

Opportunistic special status bird surveys were conducted in 2012. Standardized bird surveys will be initiated in 2015.

6.3.9 Biological Element: Special Status Amphibians

Special Status Amphibians Goal 1: Maintain breeding ponds and upland grassland habitat.

SSA Task 1a: Control access by livestock to amphibian breeding ponds during wet conditions when standing water is present or soil is saturated.

Rainfall totals were too low to create the favorable ponding conditions needed by special status amphibians.

Special Status Amphibians Goal 2: Monitor special status amphibian populations on the Preserve land.

SSA Task 2a: Survey suitable ephemeral aquatic habitat for presence of Western spadefoot toad or other special status amphibians once every five years, or during years with average or above-average rainfall.

Visual and dip-net surveys for special status amphibians were not conducted in 2013 because rainfall totals were too low to create the favorable ponding conditions needed by special status amphibians.

6.3.10 Biological Element: Pronghorn and Tule Elk

Pronghorn and Tule Elk Goal 1: Maintain and enhance habitat for pronghorn and elk on the Preserve lands.

PT Task 1a: Implement fence enhancement and/or removal on Preserve lands to increase permeability across the landscape.

Approximately 19 miles of fence has been removed from the Preserve lands and approximately 23 miles of fence has been enhanced or installed since the fence work was initiated in 2012. Removed fence included old fence materials and hogwire. Much of the fence removed was cross fence from the interior portions of the Preserve lands. Enhanced fence included fence that was salvageable and needed maintenance but did not need full replacement. The majority of this occurred along Bitterwater Road, State Route 58, and in Sections 23 and 26 to the east of Topaz Solar Farms (Fig. 6). A 4-strand, wildlife friendly fence specification was chosen for all new and enhanced fence construction (Fig. 7). All fence work was monitored by Althouse and Meade, Inc. biologists.

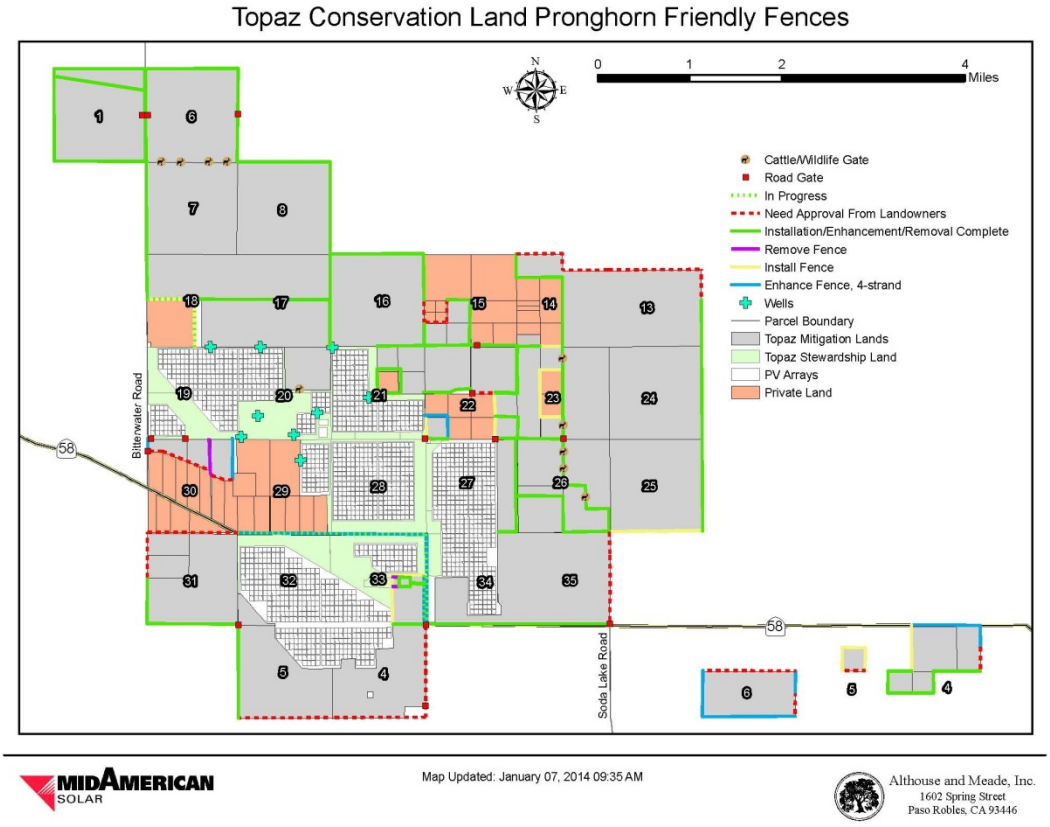

Figure 6. Proposed fence construction and retrofitting on Topaz Preserve lands. Green lines indicate fences that were completed by the end of 2013. Diagram courtesy of MidAmerican Solar.

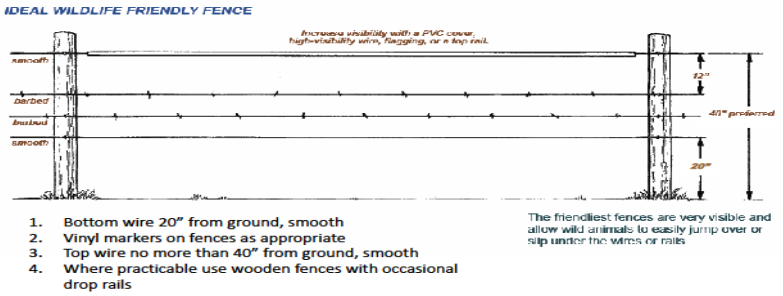

Figure 7. Wildlife friendly 4-strand fence specifications. From the handbook "A Landowner's Guide to Wildlife Friendly Fences" by the Montana Department of Fish, Wildlife and Parks (2012).

PT Task 1b: Seed as per producer's recommendation in patches to produce approximate cover of 5-30 percent within patches.

No seeding activities were performed by CDFW. In 2013, CDFW staff identified priority shrub restoration sites on the property. Shrub seeds were purchased in 2013 but conditions were so dry on the property that any seeding activities will be postponed until more favorable conditions exist.

PT Task 1c: Maintain shrub cover in perpetuity at approximately 5 to 30% within patches utilizing grazing management, and restoration activities including reseeding if necessary due to fire, drought or other circumstance.

Existing shrub cover was maintained at current levels. No new shrub areas have been established yet on the Topaz preserve.

PT Task 1d: If pronghorn on the Preserve are at risk of starvation due to drought or other natural cause, allow supplementary feed to be placed on Preserve.

Supplemental feeding of pronghorn (Antilocapra americana) was performed on a limited basis in Spring/Summer 2013. Extreme drought conditions during 2013 coupled with large scale retirement of dryland agricultural lands in the area resulted in low amounts of forb availability for pronghorn. Alfalfa was placed in feeding troughs for pronghorn in areas of the Preserve that were close to water sources. Pronghorn did not seem to utilize the provided feed. The pronghorn seemed to sustain themselves on low quantities of late season forbs in 2013.

6.3.11 Biological Element: Rare Plants

Rare Plant Goal 1: Investigate the distribution and abundance of rare plants on the Preserve land.

RP Task 1a: A qualified botanist shall conduct seasonally appropriate surveys for rare plants on the Preserve land once every five years, or during years with average or above-average rainfall.

Botanical surveys were conducted on the Topaz Preserve by the CDFW Vegetation Community Mapping Program (VegCAMP) crew in 2013. Precipitation levels were very low in 2013 and plant germination was correspondingly low. A more extensive botanical survey will be performed during a year of average or better rainfall in order to maximize the chances of detecting rare plant species.

6.3.12 Biological Element: Habitat Types

A. California Annual Grassland

Grassland Goal 1: Maintain and enhance grassland habitat in condition appropriate for use by San Joaquin kit fox and other arid grassland species.

Grassland Task 1a: Manage vegetation to promote habitat conditions preferred by San Joaquin kit fox and other arid grassland species.

Due to low precipitation and a corresponding lack of vegetative growth, the standards were met and no active vegetation management was needed this year.

Grassland Goal 2: Protect rare plant populations on the Preserve land.

Grassland Task 2a: Install protective fencing, or adjust vegetation management regime as guided by routine monitoring surveys.

Protective fencing and vegetation management adjustments were not necessary because precipitation levels were very low in 2013 and plant germination was correspondingly low. A rare plant survey will be performed during a year of average or better rainfall in order to maximize the chances of detecting rare plant species and protective fencing will be installed around sensitive populations as needed.

Grassland Goal 3: Minimize presence of noxious weeds on the Preserve land.

Grassland Task 3a: Implement management strategies to minimize or eliminate populations of noxious weeds on the Preserve land.

Weed management activities were not necessary in 2013. Precipitation levels were very low in 2013 and plant germination was correspondingly low. An invasive weed survey will be performed during a year of average or better rainfall in order to maximize the chances of accurately detecting and mapping weed populations on the Preserve lands.

Grassland Goal 4: Monitor grassland habitat annually throughout the Preserve during fall months to ensure RDM targets are met (see Section 7.4).

Grassland habitat was monitored during fall 2013. Due to extremely low rainfall totals for rain year 2012/2013 (and correspondingly low primary production), RDM targets were visually assessed and determined to be well within target values. Quantitative RDM measurements are planned for fall 2014.

Grassland Goal 5: Monitor grassland habitat throughout the Preserve land.

Grassland Task 5a: Conduct vegetation sampling once every five years in grassland areas throughout the Preserve land.

During the spring of 2013, vegetation sampling and mapping were not performed. These activities are planned for 2014 but may be postponed until a year of average or better rainfall in order to accurately map the vegetation communities.

B. Buckwheat Scrub

Buckwheat Scrub Goal 1: Maintain buckwheat scrub in locations where it is naturally occurring.

Buckwheat Scrub Task 1a: Manage grazing to maintain buckwheat scrub habitat.

Some of the Preserve parcels acquired by CDFW in 2013 contained buckwheat scrub habitat. However, low precipitation in 2013 resulted in low primary production making vegetation management by cattle grazing unnecessary in areas with buckwheat habitat.

Buckwheat Scrub Task 1b: Adjust grazing duration and intensity to allow recovery of buckwheat scrub. Use residue pattern map in Annual Report to compare aerial extent.

No grazing occurred on Preserve lands in 2013, including lands that contained buckwheat scrub habitat.

C. Vernal Pools

Vernal Pool Goal 1: Protect and enhance vernal pool and sag pond habitat for use by rare species and wildlife.

Vernal Pool Task 1a: Restrict grazing impacts on vernal pools during winter and spring breeding seasons for aquatic organisms.

Rainfall totals were too low in 2013 to create the favorable grazing conditions. No grazing occurred on Preserve lands in 2013.

Vernal Pool Task 1b: Coordinate exotic aquatic species eradication.

Rainfall totals were too low in 2013 to create vernal pools. Therefore, there was no need for aquatic species eradication.

Vernal Pool Task 1c: Protect aquatic habitats by avoiding the use of pesticides on the Preserve land.

Rainfall totals were too low in 2013 to create vernal pools. Pesticides were not used on Preserve lands in 2013.

D. Bunchgrass Grassland

Bunchgrass Goal 1: Increase the distribution and abundance of perennial native bunchgrass.

Bunchgrass Task 1a: Use vegetation management practices that consider the timing of flower and seed production of bunch grasses to avoid damage to the adult plants, maximize reproductive output, and facilitate germination and establishment of new plants.

Perennial native bunchgrass management and restoration was not performed on the Topaz Preserve in 2013. Precipitation levels were very low in 2013 and plant germination was correspondingly low. Therefore, conditions for native plant growth and restoration were inappropriate. Completion of plant surveys and vegetation mapping will help identify populations of bunchgrasses which will be the focus of management and restoration efforts in future years. The VegCAMP crew conducted vegetation surveys for all of the Preserve lands in

the spring of 2013 and will return in the next year with average or better rainfall totals.

6.4 Management Elements: Goals

6.4.1 Management Element: Grazing Program

Grazing Goal 1: Enhance habitat for endangered, rare, and common species, including pronghorn and tule elk.

Grazing Task 1a: The Preserve land manager shall direct the rangeland program to meet RDM targets of 3-8 inch high grassland vegetation for San Joaquin kit fox, and shorter vegetation for giant kangaroo rat and blunt-nosed leopard lizard.

Grazing was not necessary on the Topaz Preserve in 2013. RDM levels were within the specified parameters.

Grazing Task 1b: Assess grassland condition based on rainfall amounts in the winter and spring.

RDM was visually estimated using methods from the Wildlands Solutions handbook (2008). RDM targets were estimated to be between the target values of 500 and 1600 pounds per acre.

Grazing Goal 2: Prevent overgrazing at salt licks

Grazing Task 2a: If grazing is occurring, routinely randomize placement of nutrient supplements (salt licks).

Grazing did not occur on the Topaz Preserve in 2013.

Grazing Goal 3: Manage fuel load to minimize risk of fire.

Grazing Task 3a: The Preserve land manager shall direct the Grazing Management program to meet fire management goals.

Low precipitation for 2011, 2012, and 2013, as well as prior livestock grazing, resulted in low fire fuel levels on the Preserve lands. Therefore, fire management goals were met.

Grazing Goal 4: Provide adequate ground cover to prevent wind and water erosion of soils.

Grazing Task 4a: If RDM monitoring data collected annually in the fall determines any area is less than the RDM target, the Preserve manager shall direct the grazing program such that adequate ground cover is maintained to prevent wind and water erosion of soils.

Grazing did not occur on the Topaz Preserve in 2013. However, RDM levels were estimated to between the target values of 500 and 1600 pounds per acre. Therefore, it was determined that adequate ground cover was present on the Topaz Preserve to prevent wind and water erosion of soils.

Grazing Goal 5: Promote improved soil aggregate stability through increased soil organic matter, roots, and fungal associations.

Grazing Task 5a: This goal is met if minimum RDM targets are met annually. No specific monitoring shall be required for this goal.

The minimum RDM targets were met.

Grazing Goal 6: Provide adequate cover to stabilize former croplands.

Grazing Task 6a: Restoration of croplands will require managed grazing that may include no grazing for the first one or two years after cessation of plowing. The Preserve manager shall ensure appropriate grazing intensity is provided on restoration lands

Grazing did not occur on the Topaz Preserve or on retired croplands, therefore, adequate cover was provided to stabilize former croplands.

Grazing Goal 7: Fence to protect Preserve lands and manage grazing.

Grazing Task 7a: If necessary, fence with wildlife friendly fence, only those areas where fence control is necessary to protect Preserve lands or manage vegetation.

Though grazing did not occur in 2013, wildlife friendly fence installation was initiated on the Topaz Preserve in 2012 and continued through 2013. See Section 6.3.10.

Grazing Goal 8: Corralling structures as needed to manage Preserve land livestock.

Grazing Task 8a: To facilitate gathering and transportation of livestock, construct the minimum number of corralling structures in appropriate locations near main roads and not near sensitive habitat areas.

Grazing did not occur on the Topaz Preserve in 2013. Therefore, corrals were not needed.

6.4.2 Management Element: Habitat Restoration

Habitat Restoration Goal 1: Implement habitat restoration measures designed to convert existing croplands to annual grassland habitat suitable for rare, endangered, and common wildlife and plants of the Carrizo region.

Habitat Restoration Task 1a: End farming on all Preserve Lands. Allow natural recovery of grassland habitat.

Farming ceased on the Topaz Preserve in 2012. No subsequent grazing on those lands occurred following the cessation of farming.

Habitat Restoration Task 1b: Utilize managed grazing in concert with fencing as needed to promote native plant species growth and inhibit introduced plant species. Conduct grazing as needed to reach RDM targets for restored croplands.

Grazing did not occur on the Topaz Preserve in 2013. Low precipitation in 2012, and 2013 resulted in little plant production of any kind on the retired croplands and little to no recruitment of introduced plant species. In 2013, RDM values were estimated to be within target levels on retired croplands. Grazing will be utilized in the future, if needed, to maintain appropriate RDM levels on restored croplands.

Habitat Restoration Goal 2: Create natural vegetation communities that include shrubs suitable as browse and cover for pronghorn.

Habitat Restoration Task 2a: Apply *Atriplex polycarpa, A. spinosa, A. spinifera, A. canescens, Baccharis pilularis, Ericameria linearifolia, and Isocoma menziesii* seed in patches covering 15 to 20 percent of 50 percent of the Preserve Lands as per producer's recommendation.

Shrub seeding did not occur on the Topaz Preserve. Below average precipitation levels from 2012-2013 contributed to adverse conditions for shrub seeding.

Habitat Restoration Task 2b: Maintain shrub cover at approximately 5 to 30 percent of total cover within shrub patches utilizing grazing management.

Visual estimates indicate that there is currently very little shrub cover on the Topaz Preserve (perhaps less than 5%). Shrub cover was maintained at those levels in 2013. Though shrub cover was not quantified in 2013, no grazing occurred on the Topaz Preserve and no net loss of shrub cover was documented. VegCAMP began mapping all vegetation types on the Preserve lands in 2013, including shrubs. From that survey, a determination of shrub cover density will be made.

Habitat Restoration Task 2c: Every five years, conduct a survey of shrub habitat to determine density of shrub cover.

A survey of shrub habitat did not occur in 2013. VegCAMP began mapping all vegetation types on the Preserve lands in 2013, including shrubs. From that survey, a determination of shrub cover density will be made.

Habitat Restoration Goal 3: Monitor grassland habitat throughout the Preserve land

Habitat Restoration Task 3a: Conduct vegetation sampling annually in restoration areas throughout the Preserve land.

No restoration areas were established in 2013. Below average precipitation from 2012-2013 created inadequate conditions for restoration efforts. Therefore, vegetation sampling was not conducted on Preserve land in 2013.

Habitat Restoration Goal 4: Remove fences that are not necessary for grazing management.

Habitat Restoration Task 4a: Identify all internal fences on the Preserve land and determine which fences are essential for vegetation management. Remove non-essential fences within 3 years of the establishment of each Phase.

All internal fences were identified and evaluated to be retained, removed or enhanced. In total, approximately 12 miles of fence was removed. See Section 6.3.10.

Habitat Restoration Goal 5: Enhance fences for wildlife movement at perimeter and any remaining internal fences on the Preserve land.

Habitat Restoration Task 5a: Enhance Preserve land fences within three years.

In total, approximately 5 miles of fence was enhanced or installed. Fence enhancement involved removal of old material and hogwire fencing and construction of new wildlife friendly fence. See Section 6.3.10 and Figure 6 of this report.

Habitat Restoration Goal 6: Research Opportunities

Habitat Restoration Task 6a: Allow appropriate research authorized by CDFW and the USFWS to be conducted on the natural community present on the Preserve land.

Research on San Joaquin kit fox by CDFW and ESRP and pronghorn antelope by the United States Geological Survey (USGS) was conducted in 2013.

Habitat Restoration Goal 7: Removal of abandoned structures

Habitat Restoration Task 7a: Remove and dispose of abandoned structures, compounds, and debris consistent with County demolition permits and standards.

Removal of abandoned structures began on the Topaz Preserve in 2012 and was completed in 2013.

Habitat Restoration Goal 8: Signage

Habitat Restoration Task 8a: Place signage on perimeter fencing at noticing frequency required to designate Preserve land as restricted property (as applicable) with no trespassing allowed.

Signage was ordered and placed on the Topaz Preserve in 2013.

Habitat Restoration Task 8b: If determined appropriate by Preserve land Property Owner, and with approval of the County of San Luis Obispo, CDFG and the USFWS, place an interpretative sign on the Preserve land.

An interpretive sign was not placed on the Topaz Preserve in 2013.

6.4.3 Management Element: Noxious Weed Control

Weed Goal 1: Monitor and control weeds on CDFG List A, CDFG List B, CDFA List C, and Cal-IPC Moderate and Limited rated species from the Preserve land.

Weed Task 1a: Conduct weed surveys over the entire Preserve once every two years, when possible concurrent with botanical surveys conducted per Rare Plant Task 1a.

No standardized weed surveys or management activities occurred on the Topaz Preserve. However, one infestation of Russian knapweed was detected during routine activities. Precipitation levels were very low in 2013 and plant germination was correspondingly low. An invasive weed survey will be performed during a year of average or better rainfall in order to maximize the chances of detecting and mapping weed populations on the Preserve lands.

Weed Task 1b: The Preserve Land Manager shall implement approved management techniques to control infestations of noxious weeds identified in the Annual Report or otherwise observed on the Preserve land.

One infestation of Russian knapweed was identified in 2013. Control of this weed population will be implemented in 2014.

Weed Task 1c: Prevent introduction of new weedy species as practicable

Due to very low precipitation levels in 2013 as well as the recent cessation of dryland farming activities, the introduction of new weedy species was prevented/minimized in 2013.

6.4.4 Management Element: Fire Management

Fire Goal 1: Use grazing to manage fuels and reduce fire hazard potential.

Fire Task 1a: Manage vegetation to promote habitat conditions preferred by San Joaquin kit fox and other arid grassland species, and to reduce fuel load.

Grazing was not necessary on the Topaz Preserve. RDM targets were estimated to be between the target values of 500 and 1600 pounds per acre, which does not pose an extreme fire hazard.

Fire Goal 2: Mow firebreaks to prevent wildfires on Preserve land.

Fire Task 2a: As determined necessary by the Preserve Land Manager, mow firebreaks along public roads or other areas of potential wildfire ignition to prevent wildfires on the Preserve.

Grass height was so low it was not necessary to mow firebreaks on the Topaz Preserve.

6.4.5 Management Element: Feral Animal Control

Feral Animal Control Goal 1: Minimize populations of feral animals, such as wild pigs or cats that could result in adverse effects on native wildlife species and habitat.

Feral Animal Control Task 1: If feral animal populations are deemed problematic to proper Preserve land function, the Preserve Land Manager shall work with CDFG to design and implement a feral animal control program.

Feral animal control was not needed on the Topaz Preserve.

6.4.6 Management Element: Predatory Animal Control

Predatory Animal Control Goal 1: Minimize populations of predatory animals on the Preserve land that are deemed a threat to the continued existence of rare and endangered species such as the SJKF.

Predatory Animal Control Task 1a: If predation of rare and endangered species is determined to be a threat to their continued existence and recovery, the Preserve land manager shall work with CDFG to design and implement a predatory animal control program.

Predatory animal control was not needed on the Topaz Preserve.

6.5 Maintenance Elements: Goals

6.5.1 Maintenance Element: Ranch Roads

Ranch Roads Goal 1: Maintain roads as necessary for management access.

Ranch Roads Task 1a: Use a road grader or other implement to maintain existing ranch roads in good working condition.

Road maintenance actions did not occur on the Topaz Preserve. Lack of substantial rainfall combined with low usage made road maintenance unnecessary.

Ranch Roads Goal 2: Protect special status animal species from road maintenance operations.

Ranch Roads Task 2a: If road grading operations will consistently disturb more than six inches of ranch road bed depth, a qualified biologist familiar with all of the special status animal species in the Preserve land shall survey the roadway work area immediately prior to maintenance using heavy equipment.

Surveys were not necessary as the lack of substantial rainfall combined with low usage made road maintenance unnecessary.

Ranch Roads Task 2b**:** If special status animal species are found in or near the work area, or are suspected to have the potential to enter the work area and be at risk, work will be postponed or suspended until such time as the work will have no potential to affect rare species.

No work suspension was necessary as the lack of substantial rainfall combined with low usage made road maintenance unnecessary.

Ranch Roads Goal 3: Develop ranch road plan

Ranch Roads Task 3a: Review ranch road conditions and locations and develop a ranch road plan.

CDFW staff used GPS receivers to accurately map all the roads. A ranch road plan for the Topaz Preserve is currently under development and will be finalized in 2014.

6.5.2 Maintenance Element: Watering Facilities

Watering Facilities Goal 1: Maintain watering facilities by regular inspections of equipment, pipes, and troughs, and repair as needed.

Watering Facilities Task 1a: Preserve land manager will conduct regular inspections and repairs to watering facilities, as needed, as part of the on-going managed grazing operation.

Watering facilities on the Topaz Preserve were inspected regularly in 2013. The expansion of watering infrastructure is expected to occur prior to the commencement of livestock grazing on the Preserve lands.

Watering Facilities Goal 2: Installation of watering sites.

Watering Facilities Task 2a: Where allowed and appropriate develop new wells and water sources and install watering facilities usable by livestock, elk, and antelope. Proposed density is one per square mile.

A total of 10 watering sites were installed across the Topaz Preserve in 2013 primarily to provide water for pronghorn. All of the troughs were built as shallow, ground water troughs which make water available to all wildlife species.

Watering Facilities Goal 3: Improve watering sites for pronghorn antelope.

Watering Facilities Task 3a: Where practical, and on flat ground, install ground level water troughs near existing troughs using piping that provides water to ground level troughs when livestock troughs are turned off.

A total of 10 watering sites were installed across the Topaz Preserve in 2013 primarily to provide water for pronghorn. All of the troughs were built as shallow, ground water troughs which make water available to all wildlife species. Water for the tanks which supplied the troughs was provided by Mid-American. Species seen or known to have used the troughs include tule elk, pronghorn, black-tailed jackrabbit, and numerous bird species.

Figure 8. One of 10 pronghorn watering troughs installed on the Topaz Preserve in 2013.

6.5.3 Maintenance Element: Fences

Fence Goal 1: Maintain perimeter fencing of the Preserve.

Fence Task 1a: Inspect and repair annually to maintain fences on the Preserve land identified as essential for conservation management.

See Section 6.3.10 of this report.

Monitoring Plan Task Outline with Results (Section 7 of HMMP)

7.1 General Implementation Monitoring

General Monitoring Goal 1: Conduct annual monitoring of Preserve.

General Monitoring Task 1: Utilize the Management Plan Task List for annual inspections to determine if required tasks have been completed. Review task list and note status of all tasks for the year. Include completed checklist in Annual Report.

Inspection of the Management Plan Task List occurred in 2013. The updated task list is included in this report as Table 1.

General Monitoring Goal 2: Produce an Annual Report for the Preserve land.

General Monitoring Task 2a: Write Annual Report for the Topaz Solar Farms Preserve lands.

This report is the annual reporting of all activities conducted through December 2013 on the Topaz Preserve. This report will be provided to the Permittee, Army Corps of Engineers, U.S. Fish and Wildlife Service, and San Luis Obispo County as well as any other interested parties. The Annual Report will also be available to the public on the CDFW website.

General Monitoring Task 2b: Conduct an annual meeting at the Preserve that includes representatives from CDFG and USFWS to review Annual Report and status of the Preserve land.

This is the second Annual Report for this project. A meeting will be scheduled with the appropriate parties for 2014.

7.2 Biological Monitoring

Biological resource monitoring tasks are described above in the Biological Elements section of this report. Biological monitoring tasks shall be accomplished as described in each Task, and results shall be included in the Annual Report.

7.3 Management Activities Monitoring

Monitoring will be conducted as specified in those tasks: ranch roads, watering facilities, and fences. No additional tasks are required.

7.4 Rangeland Condition Monitoring

Rangeland Monitoring Goal 1: Provide rangeland condition information for evaluation of grazing activity.

Rangeland Monitoring Task 1a: A qualified biologist shall conduct annual site inspections over the entire Preserve to assess Preserve lands habitat condition.

Rangeland condition was assessed qualitatively using visual estimation of RDM as described in the Wildlands Solutions handbook (2008). In 2014, RDM will be assessed both quantitatively and qualitatively.

Rangeland Monitoring Task 1b: Assess Preserve land habitat condition based on rainfall amounts in the winter and spring, and Preserve land habitat biomass in the spring. Adjust stocking rates as appropriate to meet fall RDM goals.

Habitat condition was assessed in 2013. Rainfall amounts were extremely low leading to low levels of biomass on the Preserve lands. The vegetation is within the RDM targets therefore grazing will not be needed in Spring 2014.

Adaptive Management (Section 8 of HMMP)

8.1 Preserve Land Management Element: Adaptive Management

8.1.1 Adaptive management program

The purpose of an adaptive management program is to integrate management and monitoring to facilitate progress toward the biological goals and objectives of the Preserve land. Adaptive management provides flexibility to managers so that unforeseen or unusual events, conditions, or circumstances can be quickly addressed and the goals of protecting and promoting species that are the reason for the Preserve are fulfilled.

8.1.2 Performance plan

Adaptive Management Goal 1: Utilize information generated on the Preserve land and the best scientific information to adjust Preserve land management to the benefit of rare native species.

Adaptive Management Task 1a: Preserve Manager and the Conservation Easement Holder shall review available information from monitoring tasks and studies conducted on the Preserve and in the Carrizo Plain, along with pertinent scientific information regarding species and habitats on the Preserve. Make recommendations in the Annual Plan for review by CDFG, the USFWS, and the County of San Luis Obispo, if modifications to Management Plan would improve management for rare species on the Preserve. Conservation Easement Holder to provide information from monitoring tasks, and to review adaptive management recommendations.

One component of adaptive management for the Topaz Preserve will be the San Joaquin kit fox GPS study. The goal of the kit fox GPS study started in 2013 will be to collect information on kit fox movement and habitat use on the fringes of a core population of endangered San Joaquin kit foxes, and to use this information to develop effective site-specific as well as regional conservation strategies. The kit fox habitat use data obtained from this study will provide a feedback loop that will ideally allow CDFW biologists to fine tune the grazing of Preserve lands to suit listed species such as kit fox and burrowing owl. Another component of adaptive management that will be invaluable will be the thorough mapping of vegetation communities on Preserve lands by VegCAMP in 2014.

Adaptive Management Task 1b: If concurrence from all reviewing agencies is obtained for recommended changes in management on the Preserve, implement changes.

Analyses of data collected from GPS collars on tule elk from 2005 to 2007 indicated that the elk preferentially used the former Klock property CRP lands. CRP lands are generally rangelands that are left ungrazed for a prescribed length of time. The results of the above studies were used to inform the decision to honor the existing CRP contract with the USDA on the former Klock property for the remaining 7 years of the contract.

Adaptive Management Task 1c: If new information or conditions arise that require additional tasks, or changes in tasks, or if additional goals are developed through the adaptive management process, revise the Management Plan, and submit to County of San Luis Obispo, USFWS, and CDFG for review and approval of changes.

While kit fox are the primary focus for management actions, the County's EIR prepared for this project also identified the need to mitigate impacts for several other species, including tule elk and pronghorn, both of which prefer taller vegetative structure. As per the approved HMMP, longer term mitigation for these species includes revegetating the Preserve lands with native shrubs, which will not become established for several years. For these reasons, CDFW requested the amendment of the HMMP to allow the Klock CRP contract to be honored for its specified duration which ends on September 30, 2017. During that time, CDFW will continue to monitor kit fox use of the parcel.