



# **Panoche Valley Solar San Joaquin Antelope Squirrel Relocation Plan**

Panoche Valley Solar Project  
San Benito County, California  
April 26, 2014





San Joaquin Antelope Squirrel Relocation Plan  
Panoche Valley Solar Project

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Date:  
April 27, 2014



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## DEFINITIONS

Biological Monitor	Observers that work onsite to perform biological surveys and provide oversight of ground disturbing activities as needed; receive instruction from and reports to the Designated Biologist(s). Minimum education level of four-year degree in biological sciences, environmental sciences, or equivalent combination of education and experience.
Conservation Lands	Three large parcels of land to offset potential impacts as part of a conservation package consisting of the permanent preservation and management of those parcels (Valley Floor Conservation Lands, Valadeao Ranch Conservation Lands, and Silver Creek Ranch Conservation Lands).
Designated Biologist	Biologist knowledgeable and experienced in the biology, and natural history of the special-status species on the Project and shall be responsible for monitoring construction activities to help minimize and fully mitigate or avoid the incidental take of individual species and to minimize disturbance of special-status species' habitat. This biologist may appoint biological monitors to perform biological surveys or provide oversight of ground disturbing activities as needed in their place.
Project Footprint	The portion of the project that includes the solar arrays and associated roads and equipment, totaling 2,492 acres.
PVS	Panoche Valley Solar Facility; name of the proposed project.
Study Area	Project Footprint and Conservation Lands are collectively referred to for this relocation plan.



## ACRONYMS

BNLL	Blunt-nosed Leopard Lizard
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
FEIR	Final Environmental Impact Report
GPS	Global Positioning System
GKR	Giant Kangaroo Rat
MW	megawatt
PV	photovoltaic
PVC	Polyvinyl chloride
SCRCL	Silver Creek Ranch Conservation Lands
SJAS	San Joaquin Antelope Squirrel
USFWS	U.S. Fish and Wildlife Service
VFCL	Valley Floor Conservation Lands
VRCL	Valadeao Ranch Conservation Lands



## 1.0 Introduction

Panoche Valley Solar, LLC proposes to construct and operate a solar photovoltaic (PV) energy generating facility located in San Benito County, California that will generate approximately 399-megawatt (MW) (Figure 1). This project is called the Panoche Valley Solar Facility (PVS) Project (Proposed Project). The Proposed Project will include some unavoidable impacts on San Joaquin antelope squirrels (*Ammospermophilus nelsoni*; SJAS); located within the boundaries of the Proposed Project Footprint. This relocation plan has been developed to minimize the unavoidable impacts due to the construction of the Proposed Project on recommendations from the California Department of Fish and Wildlife (CDFW).

The proposed solar site construction footprint (Project Footprint) contains approximately 2,492 acres of presently grazed (cattle and sheep) land in the Panoche Valley of eastern San Benito County, California (Figure 2). The Proposed Project would also include approximately 24,185 acres of high quality Conservation Lands that are contiguous with the approximately 2,492-acre Project Footprint (Figure 3). These high quality lands are the Valley Floor Conservation Lands (VFCL), Valadeao Ranch Conservation Lands (VRCL), and Silver Creek Ranch Conservation Lands (SCRCL). The Project Footprint and Conservation Lands are collectively referred to for this relocation plan as the "Study Area".



## 2.0 Species Description

The SJAS is currently listed as threatened by the California Endangered Species Act (CESA [Fish and Game Code §§ 2050 et seq]). The species does not have its own recovery plan, but is included in the Recovery Plan for Upland Species of the San Joaquin Valley, California (USFWS 1998).

### 2.1 Historical Distribution of SJAS

The historic distribution of the SJAS included the San Joaquin Valley and the contiguous areas to the west in the upper Cuyama Valley and on the Carrizo and Elkhorn Plains (USFWS 1998). SJAS range in elevation from about 50 meters (165 feet) in the San Joaquin Valley to about 1,100 meters (3,600 feet) in the Temblor Mountains (USFWS 1998). The CNDDDB has historic records of the SJAS occurring in the following USGS quadrangle maps: Cerro Colorado (1940), Hammonds Ranch (1958), Idria (1936), Mercey Hot Springs (1994), Panoche Pass (1929), Panoche (1994), and Tumey Hills (2006).

### 2.2 Characteristics of SJAS

The SJAS is one of five species of antelope squirrels. The SJAS retains a typical ground-squirrel shape with small, rounded ears and a streamlined body with relatively short legs. Average individuals range in size from about 218 to 240 mm in length and weigh 130 to 170 grams. The tail has fringes of hair that project laterally, giving it a flat appearance. It is usually held cocked or curled over the back exposing a light colored underside. Coloration is generally described as tan with a light stripe along the sides. Relatively smaller size, appearance of the tail and light stripe along the side distinguish this species from the co-occurring California ground squirrel (USFWS 1998).

SJAS live in burrows that vary in complexity and length, but generally have two to six openings and are between roughly 30 and 50 centimeters (12 to 20 inches) deep. They may live in burrows of their own construction or take over and enlarge those dug by kangaroo rats.

The SJAS live in relatively arid annual grassland and shrubland communities (i.e., *Atriplex* and *Ephedra*) in areas receiving less than 23 centimeters (10 inches) of mean annual precipitation. This species is found in higher numbers in sparse to moderate cover of shrubs. In the project area they are associated with plants such as red brome, red-stemmed filaree and California ephedra. SJAS construct burrows in predominantly loam and sandy loam soils such as those that are found in the project area (i.e., Panoche loam soil series), typically in areas that do not flood. In areas of low shrub cover, the SJAS are closely associated with GKR, including living in the burrow systems constructed by GKR (USFWS 1998).

SJAS are predominantly diurnal, with activity peaking early or late in the day. Less activity is observed when ambient temperatures drop below approximately 10 degrees Celsius (50 degrees Fahrenheit) and when higher ambient temperatures are reached, though the critical temperatures at which activity is reduced are unclear. At some locations, such as the Elkhorn Plain Ecological Reserve, observations of SJAS have been recorded during the entire day, even when ambient temperatures exceeded 42 degrees Celsius (108 degrees Fahrenheit) during July and August. Daytime activity above ground extends to most of the day during spring when temperatures are between approximately 20 to 30 degrees Celsius (68 to 86 degrees Fahrenheit).



According to the Recovery Plan for Upland Species of the San Joaquin Valley, California (USFWS, 1998) there is one breeding period for the SJAS during late winter lasting through early spring. SJAS do not breed until their second year. The gestation period is around 26 days with embryos present in late January. The number of embryos ranges from 6 to 11, averaging 8.9. After birth between March and April, young may be seen above ground roughly 30 days after birth. Young are weaned from late April to mid- or late-May (USFWS 1998).

SJAS are omnivorous, taking advantage of food and forage that is available. Green vegetation, fungi, and insects are preferred while seeds are less important in the diet. Vegetation and seeds from plants such as filaree and red brome and seeds of ephedra and saltbush are important food sources. The primary insect consumed is grasshoppers when available. In the absence of seeds and grasshoppers, SJAS will eat harvester ants. During spring SJAS will eat large quantities of ephedra seeds, particularly during severe drought (USFWS 1998).

Predators of the SJAS include hawks, falcons, eagles, snakes, kit foxes, coyotes, badgers, as well as others (USFWS 1998).

### 2.3 Site Survey Background - SJAS

Multiple biological surveys performed in the Study Area between 2009 and 2012 (total of over 20,000 survey hours) that documented the presence of SJAS in multiple locations. These surveys included: protocol-level rare plant surveys, abridged 2009 protocol-level blunt-nosed leopard lizard (*Gambelia sila*; BNLL) surveys, distance sampling, occupancy sampling, and surveys specific to GKR. Many of these surveys were conducted under conditions suitable for observation of SJAS.

A 100 % coverage survey of the Study Area was conducted and a systematic stratified sampling effort was completed on the Conservation Lands in February and March 2013 primarily targeting GKR. Field surveyors used a grid sampling system whereby 30m x 30m grid squares were evaluated for the presence of GKR sign. Grid squares were arranged along north-south running parallel transects. Surveyors visually inspected each grid square for evidence of GKR precincts. Evidence of other special status species, including SJAS, was recorded if observed.

Within the Project Footprint, the survey grid accounted for 100% coverage, plus a 500 foot buffer (in areas where landowner access was granted). The VFCL are interlaced within the Project Footprint. For this reason, the VFCL was surveyed using the same grid system as the Project Footprint and was subject to 100 percent coverage.

The SCRCL and VRCL were surveyed using the same methodology described above but with wider transects. No buffers were surveyed for the Conservation Lands since surveyors did not have landowner access outside these areas. Transects were systematically distributed across the Project Footprint and included areas previously identified as high and low suitability habitats in past studies. The SCRCL and VRCL surveys were designed to cover approximately 20-30 % of the Conservation Lands, therefore, transect spacing was approximately 148 meters.



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BNLL protocol surveys were conducted during 2013 over the entire project footprint, the VFCL and a portion of the VRCL lands (approximately 500-foot buffer in suitable BNLL habitat along boundary with project footprint). Conditions were suitable for observation of SJAS during all BNLL surveys and many of the other surveys conducted for Requested Take Species associated with the PVS and Conservation Lands.



### 3.0 SJAS Occurrence Results

#### 3.1 SJAS Results within Project Area

SJAS were regularly observed in the more diverse habitats on the VRCL and SCRCL during surveys conducted in 2009, 2010, and 2012 by Live Oak Associates, Inc. The entire acreage of the Conservation Lands is considered suitable mitigation for this species. Based on these results, SJAS are expected to occur on the Project Footprint in relatively numbers. Three individuals were observed within the Project Footprint during various surveys conducted in 2009, two individuals were detected on the VFCL, and seven on the VRCL during 2010 surveys. The overall population levels of this species on the VFCL and the VRCL is considered low; however, on the SCRCL, SJAS populations are considered high, with hundreds observed throughout most of the SCRCL during 2010 reconnaissance surveys, in addition, 119 were observed incidentally in a two-week period in September of 2012 (Table 1).

During the BNLL protocol surveys between June and September 2013, SJAS observations were recorded as follows: Project Footprint (30); VFCL (5) and VRCL (14) (Figure 4; Table 1). Many of these observations that were likely the same individual observed multiple times over the survey period.

Table 1: SJAS Observations on Panoche Valley Solar Project

<b>SURVEY PERIOD</b>	<b>PROJECT FOOTPRINT</b>	<b>VFCL</b>	<b>SCRCL</b>	<b>VRCL</b>
2009	3			
2010		2	>100	7
2012			119	
2013*	30	5		14

\*Based on 17 site visits during BNLL surveys; therefore, observations may not represent individuals. SCRCL was not visited during BNLL surveys



## 4.0 Discussion of Results

SJAS observations were the highest on SCRCL followed by the Project Footprint, VRCL and VFCL. Observations on the Project Footprint were only made east of Little Panoche Road. Within this portion of the Project Footprint, many of the observations were made along interior site roads. The Project Footprint contains very little typical habitat for this species as it is nearly devoid of shrubs. Potential candidate relocation sites could include areas where similarly suitable habitat is present in the adjacent VFCL and VRCL lands that have not been found to be occupied. In addition, the variable topography in potential candidate relocation sites would provide cover initially after relocation.

## 5.0 SJAS Relocation

The following SJAS conservation measures are pertinent to this plan and are consistent with those required in the Final Environmental Impact report (FEIR) (San Benito County 2010) for the project:

- No more than 30 days prior to the commencement of ground disturbance activities the Applicant shall retain a County-approved, Designated Biologist to supervise completion of pre-construction surveys for each phase of the project with assistance from Biological Monitors. If present, active SJAS burrows shall be flagged and ground-disturbing activities shall be avoided within a minimum of 50 feet surrounding each active burrow. If avoidance is not possible, the Applicant shall take the following sequential steps when working in such areas:
  1. Allow for one night without disturbance to the burrow and surrounding area to allow the SJAS to vacate the burrow;
  2. Antelope squirrels shall be live trapped and relocated out of impacted areas in the same manner as described under for GKR.
  3. Methods shall be taken to prevent reentry to the burrow by SJAS (and other small mammal species) until construction is complete in these areas.
  4. Once construction activities are complete access to the burrows shall be restored. If construction-related impacts would result in the crushing or destruction of a burrow then the burrow shall be excavated (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than 4 inches at a time.
  5. SJAS burrows shall not be disturbed from January to May (recognized breeding/mating season) unless a qualified biologist, utilizing video technology, verifies that no young are present in the burrow or following methods provided in Section II.C below.
- Regarding step #5 above, procedures have been included below in consideration of issuance of a CESA ITP to address activities between January and May.

Relocation procedures to implement these measures are described in Section 5.1. All individuals detected will be relocated to suitable nearby habitat as described below. This SJAS Relocation Plan will implement methodology consistent with successful kangaroo rat relocations, with appropriate adjustments given the different requirements of this antelope squirrel species (Bender et al. 2010; Germano 2001, 2010; Germano and Saslaw 2007; Germano et al. 2009; Tennant et.al. 2013). Procedure adjustments were also developed based on experience from trapping and relocation projects in the southern portion of the species' range. The relocation methodology includes trapping to remove SJAS from the Project Footprint that will be impacted by construction activities; verification that all individuals have been detected; and hand or mechanical excavation (as appropriate) of burrows that will be unavoidably destroyed by construction activities. The SJAS will be relocated to suitable areas adjacent to the Project Footprint including unoccupied areas within the VFCL and potentially in the



VRCL. It is not anticipated that the SCRCL will be used given the relatively high numbers of individuals observed on the SCRCL. Specific relocation site criteria are detailed herein.

The ultimate goal and objective of relocating SJAS is to preserve and minimize harm, injury, or death of individual SJAS during Project build-out and to possibly recolonize nearby locations where SJAS are no longer found but suitable habitat is present.

The release of SJAS into nearby suitable habitat that is not occupied will create opportunities to increase the distribution of the species beyond its current locations and occupancy levels. The relocated SJAS individuals and/or populations will be monitored after the end of the construction on the Project to determine success of the relocation. Post-release trapping will be used to assess and report success of the relocation efforts.

Conducting successful relocations requires careful consideration for each animal's well-being during capture, transport, release, and successive monitoring. Risk to the animal should be minimized and acclimation and survival at the release site will be maximized by implementing accepted practices. At a minimum, the following procedures will be implemented:

## 5.1 Relocation Procedures

Relocation Procedures will be implemented subsequent to preconstruction surveys and will be based on survey results and any incidental observations during Project site preparation.

### I. Project Site Preparation

- A. PVS or their contractor will mark work area limits with stakes and flagging;
- B. All potential SJAS burrows within the Project Footprint and a 50-foot buffer will be documented (size, location and aspect) and staked and/or flagged;
- C. Prior to any excavation, trenching, or digging associated with this Relocation Plan, the party or parties responsible for such activities will contact the Project safety personnel to ensure all safety requirements are followed (e.g. location of underground utilities);
- D. A Biological Monitor who is under the direct supervision of a Designated Biologist and that has been trained, will be present for the installation of buried wildlife exclusion fencing along the marked work area boundary intended to exclude SJAS from the Project Footprint. Fence installation will be overseen by the Designated Biologist who does not need to be present during all installation activities but should inspect fence locations prior to trenching. At the discretion of the Designated Biologist, temporary exclusion fencing that is not buried may be used to enclose areas targeted for trapping that are in the direct path of construction phase exclusion fence installation (e.g., from trenching);
- E. Exclusion fencing will consist of smooth material (such as aluminum flashing or polyvinyl chloride [PVC] jacket material) or of a design that deters SJAS from climbing over the fence. Construction-phase exclusion fence will be buried at least 24 inches deep with at least 36 inches above ground level. The buried wildlife



exclusion fence will avoid all remaining covered species burrow entrances by a buffer of at least 50 feet;

- F. If determined to be necessary to minimize impacts to SJAS outside of the project perimeter, wildlife exclusion fencing will be installed along the Project boundary adjacent to SJAS occupied areas and for a distance extending for approximately 500 feet from the nearest active burrow (additional exclusion fencing may be required beyond necessary SJAS fencing to exclude other covered species);
- G. If burrows potentially occupied by SJAS or other covered species cannot be avoided by at least 50 feet, the following measures to remove SJAS from such burrows prior to installation of wildlife exclusion fencing requiring trenching will be implemented.;
  - 1. For SJAS occupied areas, trapping following SJAS trapping methods (below in Section II) will be conducted prior to fence installation requiring trenching. Subsequent to trapping, burrows potentially occupied by SJAS will be excavated following excavation procedures.
  - 2. For other covered species, avoidance and minimization measures specific to that species will be implemented prior to fence installation requiring trenching.
- H. Release locations will be identified subsequent to preconstruction surveys and prior to trapping and removal activities subject to the following criteria:
  - 1. Captured SJAS will be relocated in neighbor groups. A SJAS will be considered within a "neighbor group" if they are within 20 meters of the nearest neighbor. Neighbor release configuration will be determined based on relative locations of captured individuals (see II.B, below).
  - 2. Release locations must be able to accommodate all SJAS potentially captured that are within each neighbor group.
  - 3. Release locations will be chosen based on the following, in order:
    - a. The nearest high quality habitat in the VFCL that is unoccupied and with microtopographic features that will provide cover such that the relocated group will be at least 100 feet (approximately 30 meters) from the nearest suspected active burrow, if any are present. Former agricultural land will be targeted;
    - b. If there are no candidate release locations on the VFCL within one mile of the capture location, unoccupied high quality habitat in within VRCL will be utilized. No relocations of SJAS will be completed in the SCRCL unless approved by CDFW.
    - c. Subject to approval by CDFW, captured SJAS may be used to further recovery efforts for this species at locations in the greater Panoche-Ciervo area. If individual SJAS are relocated outside of PVS Conservation Lands, monitoring of relocation success would be the responsibility of the wildlife agencies.

## II. SJAS Detection and Removal

The following methods are intended to result in as close to 100% depletion rates as possible with the goal of avoiding mortality of SJAS.

- A. The Designated Biologist, a Biological Monitor under the direction of the Designated Biologist, or a supervised trapping crew will conduct six consecutive days of trapping with live traps (e.g. Sherman live traps or similar live traps) to capture SJAS at burrows identified during preconstruction surveys using 20% more traps than the number of identified burrows in the trapping area.
- B. Data to be collected on all SJAS captured will include: (1) the locations (Global Positioning System [GPS] coordinates and maps) and the time of capture and/or observation as well as release; (2) sex; (3) approximate age (adult/juvenile); (4) weight; (5) general condition and health, noting all visible conditions including gait and behavior, diarrhea, emaciation, salivation, hair loss, ectoparasites, and injuries; and (6) ambient temperature when handled and released. Any non-listed small mammals that are captured will be documented and released outside of the Project Footprint boundary.
- C. If a lactating female SJAS is captured (potentially January – May), one of two procedures below will be implemented:
  1. The female will be released immediately with follow-up trapping conducted within approximately 30 days (or less at the discretion of the Designated Biologist and depending on the condition of the female). The purpose of follow-up trapping will be to capture the female and any of her young that are venturing aboveground. If she still appears to be lactating and young are not captured, it may be necessary to release her with additional follow-up trapping conducted.
  2. As an alternative, excavation of SJAS burrows within 100 feet of the capture location will be commenced immediately and trapping in that location will continue until completion of the six-night session. If dependent young are encountered during burrow excavation, they will be placed with the female and held until the Designated Biologist determines that the young are capable of surviving either with or independent of the adult female.
- D. Project minimization and avoidance measures will be implemented during all SJAS trapping and relocation activities.
- E. Captured SJAS will be released into pre-identified release locations identified in Section I.H.3 above, following the procedures in Section IV, below. If new evidence of SJAS (individuals/burrows) is found in an active construction area, construction will be halted within a 50-foot avoidance area or greater if deemed necessary. Procedures A through D (above) will then be implemented.

## III. Burrow excavation

Upon completion of six consecutive nights of live trapping, the following will be implemented:

- A. Small mammal burrows suitable for SJAS that are present within the trapping grid will be excavated using hand tools if possible. If soil conditions or burrow depths make manual excavation impractical or unsafe, hand-held power tools may be used to assist in direct excavation of burrows. At no time will the hand-held power tool be used without a protective barrier (such as PVC tube, or similar) to prevent injury/mortality to small mammals that may attempt to escape burrows during excavation procedures. With the Designated Biologist and/or Biological Monitor present, additional mechanized equipment (e.g., backhoe) may be used to expand, slope, and/or terrace excavations for safety; however, this type of equipment will not be used for direct burrow excavation.
- B. If any SJAS are detected during burrow excavation, they will be captured (either through additional trapping or by hand) and release procedures (see below in Section IV) shall be followed; unless the individuals move into burrows that are greater than 50 feet from the construction boundary.
- C. No SJAS burrow excavation will occur within any BNLL buffer avoidance area.

#### IV. SJAS Release

- A. Subject to the direction of a Designated Biologist or Biological Monitor, captured SJAS will be released into the designated release location.
- B. Relocation sites with both high quality habitat and the presence of shrubs, suitable topography or other cover in the vicinity will be given high priority.
- C. The high quality habitat for the relocation sites will typically lack dense, non-native grass cover, or will be managed to reduce dense, non-native grass cover that occurs during years when herbaceous growth is high.
- D. If necessary due to weather, time, or site preparation at release locations, captured SJAS will be held in captivity by a properly permitted small mammal trapping specialist. Captive SJAS would be subject to holding for no more than 30 days.
- E. SJAS in captivity would be held in separate plastic, glass, or other rigid non-toxic container measuring at least five gallons in size in an onsite climate controlled room (between 60°F and 85°F). Individuals SJAS will be provided with non-tinted, unbleached paper towels and enough suitable substrate (soil, sand, or similar) to cover the bottom of the container. Each SJAS will be provided with approximately one cup of bird seed mix (mixture of approximately 75% proso white millet and 25% oats groats) initially that will be maintained until release.
- F. Individuals will be released into existing suitable small mammal burrows or artificial burrows constructed within the designated release location based on relative location of individuals using the capture map of neighbors (Section II B).
- G. If artificial burrows are created, no SJAS will be relocated within 50 feet of small mammal burrows that may be occupied by BNLL in BNLL buffer avoidance areas in the VFCL. Artificially created SJAS burrows in areas of the VRCL will be located at least 50 feet from small mammal burrows that may be occupied by BNLL unless protocol BNLL surveys have been conducted with no detections of BNLL.



- H. Artificial burrows will consist of a suitably sized tube made of cardboard or other biodegradable material with one end buried or excavated with an approximately three-inch diameter soil auger. Regardless of method, a hole at least three feet in length extending at least two feet in depth shall be created.
  - I. Each artificial burrow relocation site in which a SJAS is released will be provisioned with four cups of seed (mixture of approximately 75% proso white millet and 25% oats groats) upon release. The area in the vicinity of each individual released will be provisioned with four cups of seed once per week continuing until green-up of vegetation or until provisioning is deemed to be unnecessary by the designated biologist.
- V. Post-Release Monitoring
- A. Released individuals will be temporarily marked using a permanent marker or other form at the discretion of a Designated Biologist. A Designated Biologist or Biological Monitor will monitor release locations by conducting trapping between 60 and 90 days following release and after completion of all SJAS relocation for each construction phase (two phases anticipated).
  - B. Data to be collected on all SJAS recaptured will include: (1) the locations (Global Positioning System [GPS] coordinates and maps) and the time of capture and/or observation as well as release; (2) sex; (3) approximate age (adult/juvenile); (4) weight; (5) general condition and health, noting all visible conditions including gait and behavior, diarrhea, emaciation, salivation, hair loss, ectoparasites, and injuries; and (6) ambient temperature when handled and released.
  - C. The results of the trapping session will be included in the following year's CESA ITP annual report submitted to CDFW.



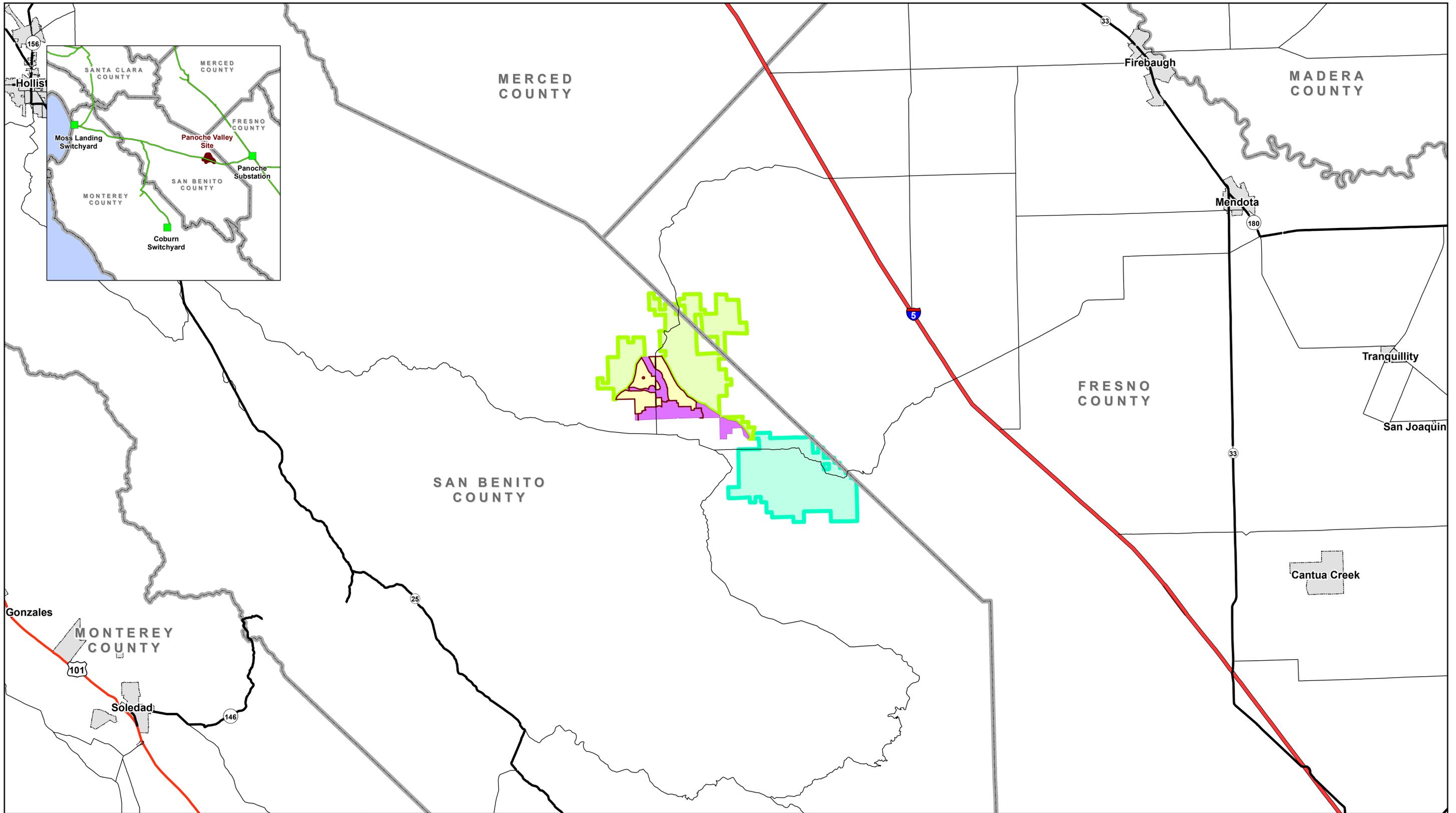
## 6.0 References

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Giant Kangaroo Rat Relocation Plan  
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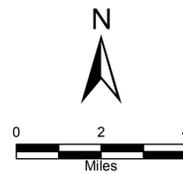
**FIGURES**



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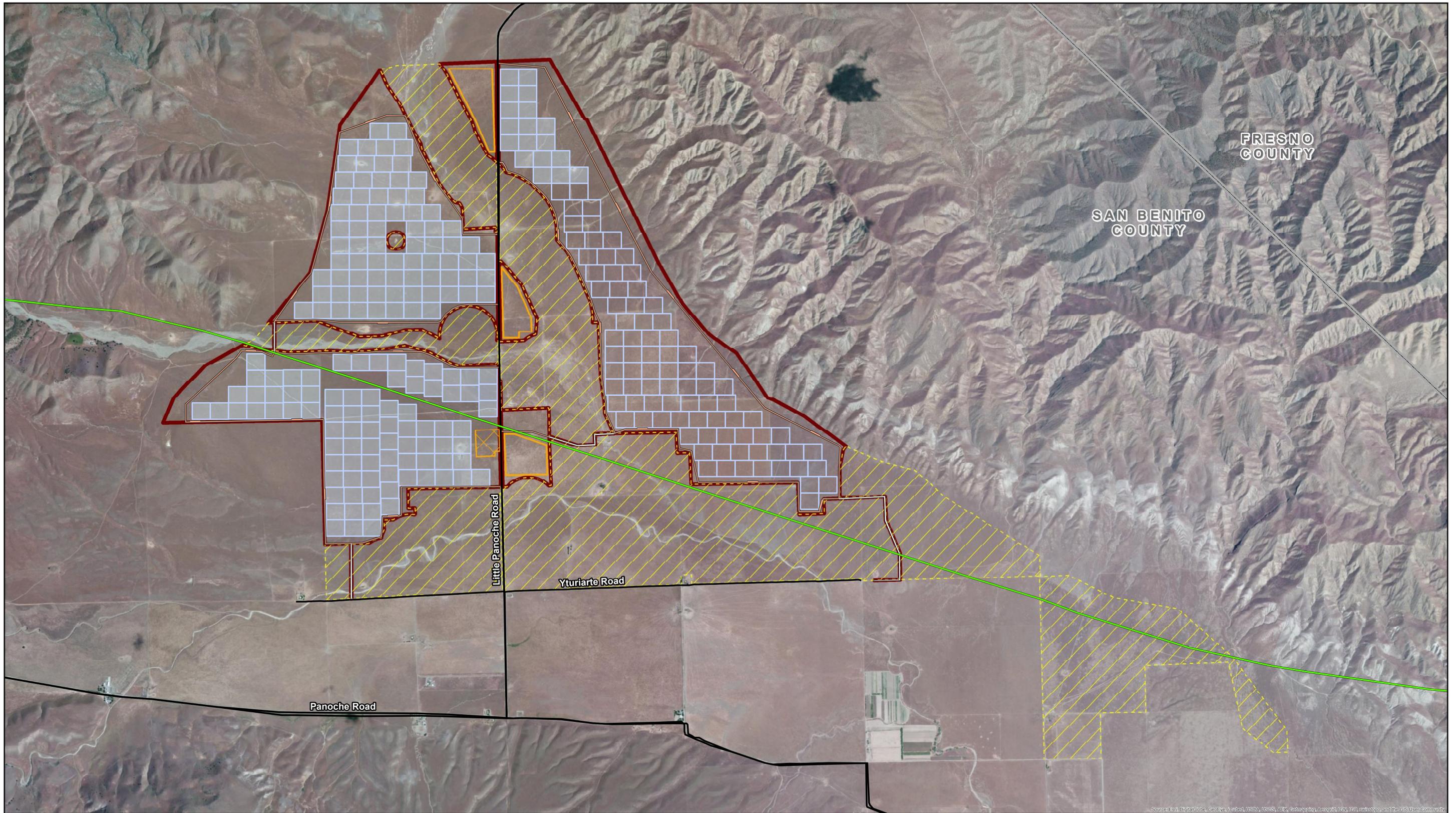
**Legend**

- County Line
- Project Footprint
- Valadeao Ranch Conservation Lands
- City Limit
- Valley Floor Conservation Lands
- Silver Creek Ranch Conservation Lands



**Panoche Valley Solar Project**  
Project Location

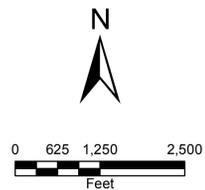
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**1**



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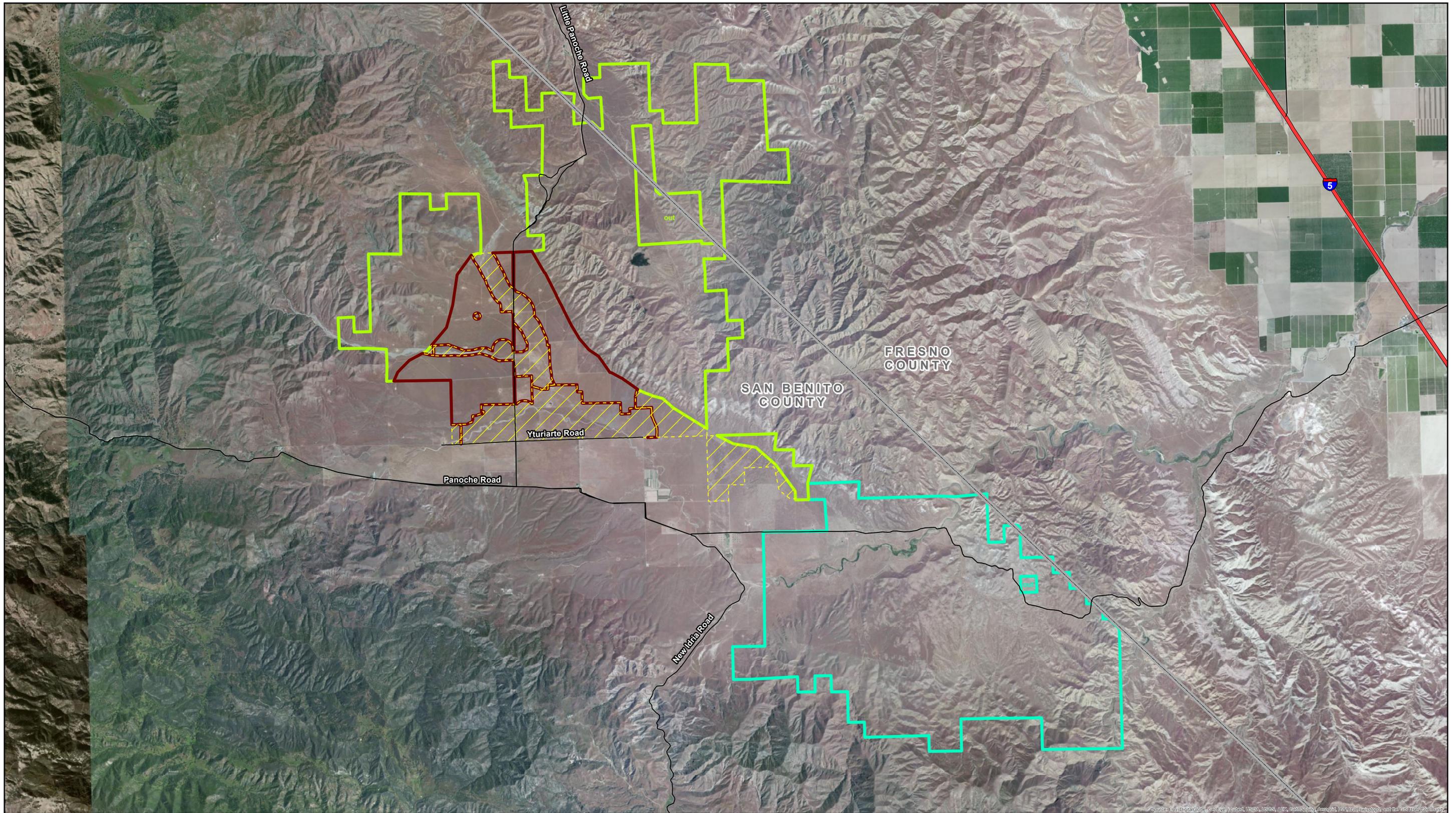
**Legend**

- |   |                                       |   |                                  |
|---|---------------------------------------|---|----------------------------------|
|  | Project Footprint                     |  | Project Substation               |
|  | Valley Floor Conservation Lands       |  | Laydown Yard                     |
|  | Proposed Panel Block (Phase I Shaded) |  | Project Road (O&M/Emergency Use) |
|  | Existing Transmission Line            |  | Project Road (Emergency Use)     |



**Panoche Valley Solar Project**  
Proposed Layout

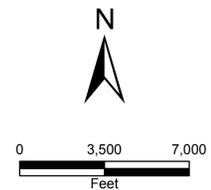
Figure  
2



BR  
10/15/2013

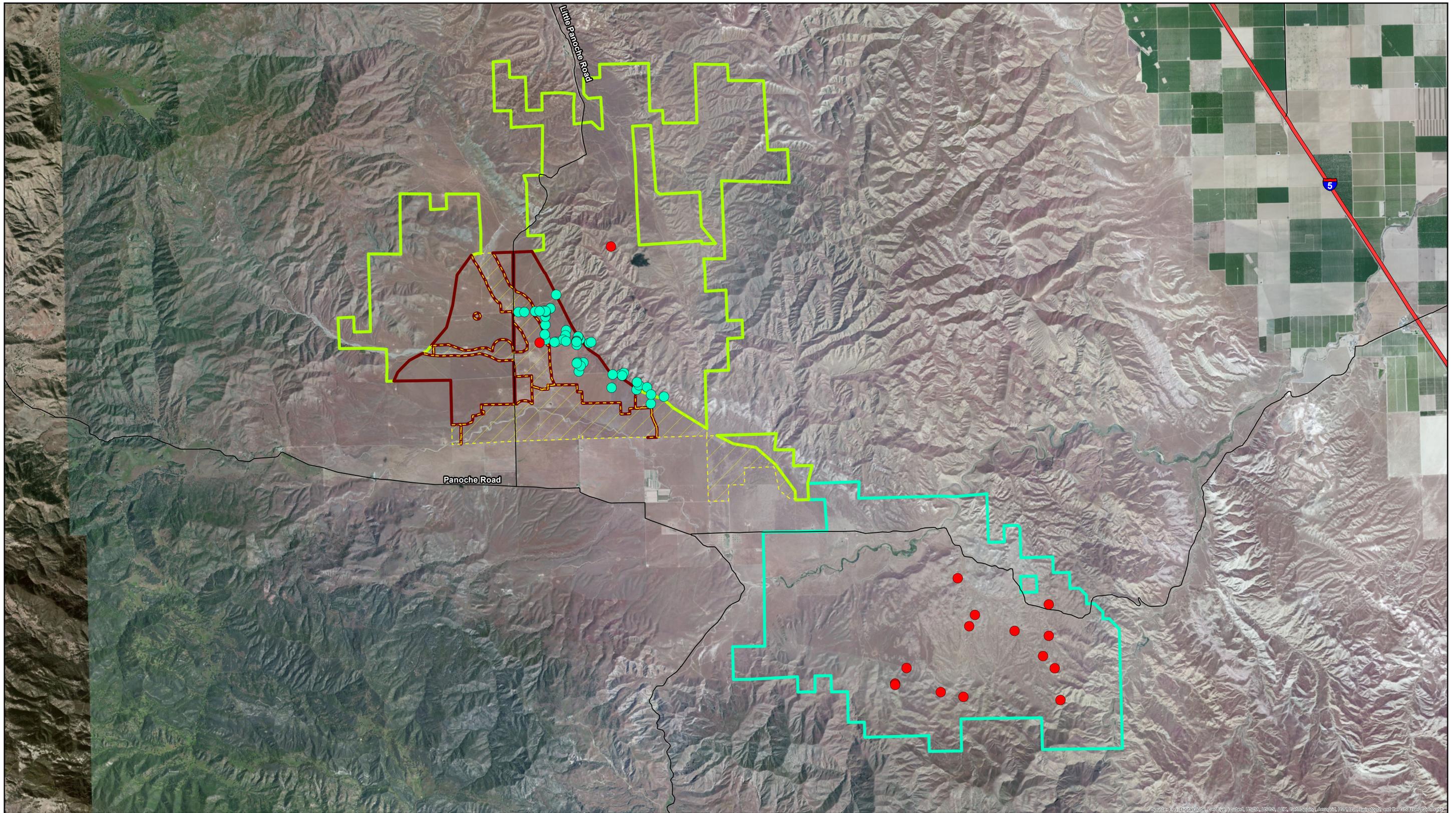
**Legend**

- Project Footprint
- Valadeao Ranch Conservation Lands
- Valley Floor Conservation Lands
- Silver Creek Ranch Conservation Lands



**Panoche Valley Solar Project**  
Project Footprint and Conservation Lands

**Figure**  
**3**



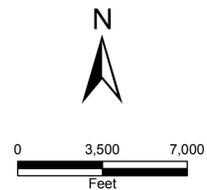
BR  
4/10/2014

**Legend**

- Project Footprint
- Valley Floor Conservation Lands
- Valadeao Ranch Conservation Lands
- Silver Creek Ranch Conservation Lands

**Status**

- Observation Location Feb - April
- Observation Location Jun - Sep



**Panoche Valley Solar Project**  
2013 San Joaquin Antelope Squirrel Observations

**Figure**  
**4**