



February 19, 2010

Mr. Christopher Meyer
CEC Project Manager
Attn: Docket No. 08-AFC-13
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Mr. Jim Stobaugh
BLM Project Manager
Attn: Docket No. 08-AFC-13
Bureau of Land Management
P.O. Box 12000
Reno, NV 89520

DOCKET	
08-AFC-13	
DATE	FEB 19 2010
RECD.	FEB 22 2010

RE: Calico Solar (Formerly Solar One) Project
Applicant's Submittal of Burrowing Owl Survey Report

Dear Mr. Meyer and Mr. Stobaugh,

Tessera Solar hereby submits the Calico Solar Burrowing Owl Survey Report. I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Sincerely,

Felicia L. Bellows
Vice President of Development



February 19, 2010

Chris Huntley
Senior Associate/Biologist
Aspen Environmental Group
30423 Canwood Street, Suite 215
Agoura Hills, CA 91301-4316

Subject: Results of the 2010 Burrowing Owl Surveys for the Calico Solar Project
San Bernardino County, California
URS Project No. 27658189.70003

Dear Mr. Huntley:

The purpose of this letter report is to describe the results of focused western burrowing owl (*Athene unicularia*, BUOW) surveys conducted in 2010 on the Calico Solar Project (Project) near Barstow, California.

BACKGROUND

The BUOW is a small, ground dwelling bird that inhabits open habitats such as grasslands, agricultural fields, and disturbed areas in the western half of the United States down to Baja California and central Mexico (Johnsgard 1988). BUOW use burrows throughout the year for shelter from weather and predators, and for nesting during the breeding season (February 1 to August 31). In Southern California, the most commonly used rodent burrow is that of the California ground squirrel (*Spermophilus beecheyi*), therefore, BUOW nesting distribution is strongly correlated to local ground squirrel burrow distribution (Collins 1979). BUOW form short-term pair bonds with male territoriality peaking during pair formation and declining after egg-laying. Not all individuals capable of breeding do so every year. BUOW populations have declined through much of their range because of habitat loss resulting from urbanization, agricultural conversion, and destruction of ground squirrel colonies (Remsen 1978).

The BUOW is protected by the Migratory Bird Treaty Act (1918), is a United States Fish and Wildlife Service (USFWS) bird of conservation concern, a California Department of Fish and Game (CDFG) species of special concern, and is considered sensitive by the Bureau of Land Management (BLM). Protocol BUOW surveys were not conducted onsite initially because it was determined that conducting BUOW surveys during tortoise clearance surveys would be the most efficient use of time and resources. However, protocol BUOW surveys were conducted in January and February of 2010 at the request of the CEC, BLM, USFWS and CDFG. Survey protocols were accepted by all four agencies prior to the start of surveys.

SITE LOCATION

The proposed Project would result in the development of a solar-powered electric generating facility situated approximately 37 miles east of Barstow in San Bernardino County in southern California (Figure 1). The Project is located on land managed by the BLM. The total area of the Project is approximately 8,230 acres. A 1000-foot radius buffer around the Project boundary was also surveyed. The Project area is surrounded by the Cady Mountains to the north, Newberry Mountains to the west, an existing Southern California Edison (SCE) transmission line to the east, and Interstate 40 to the south. There are also portions of the Project site that are within the Project Area, but are not a part (NAP) of the Project development footprint. These locations are displayed on the attached figure as NAP.

SITE DESCRIPTION

Vegetation across the Project site is dominated by Mojave creosote bush scrub through the rolling terrain, with less common and site-specific conditions allowing for saltbush scrub in the southwestern portion of the Project Area. Developments in this area include the Burlington Northern Santa Fe (BNSF) railroad, which bisects the Project site, a maintained north-south dirt access road for the existing transmission line on the eastern border of the assessment area connecting to the existing Pisgah substation south of the site, and several east-west dirt roads that cross the site. The past land uses within the assessment area include a history of cattle grazing and limited mining. Currently there is evidence of disturbance from off-highway vehicle (OHV) activities.

METHODS

Survey methodology followed a modified version of the California Burrowing Owl Consortium Burrowing Owl Survey Protocol (1993). Modifications were made to the protocol and approved by the BLM, CEC, CDFG, and USFWS to account for the large area of the project, and because URS conducted previous biological surveys throughout the site. Surveys were conducted in January and February, 2010, from one hour before sunrise to two hours after sunrise, and from two hours before sunset to one hour after sunset. To facilitate the survey, the entire project site was divided into 19 sections ranging from 128 to 700 acres each. Each section was surveyed once during either the dusk or dawn survey window by several qualified biologists walking transects spaced 30 meters (100 feet) apart. The survey rate of coverage averaged approximately 50 acres per person per survey session (<17 acres per survey hour). All BUOW, BUOW burrows and other BUOW sign were documented. BUOW sign includes scat (whitewash), pellets, molt from young (down feathers), and fossorial mammal bones.

Potential BUOW burrows were scoped using a Milwaukee Tools M-Spector AV M12 cordless multimedia inspection camera (17mm) and a Peeper 2000 video probe after completion of the dawn transects to determine burrow occupancy. Sensitive species observations were documented with hand-held GPS units and digital cameras. Other species data collected during BUOW surveys included badger (*Taxidea taxus*) dens, raptor nests, desert tortoise (*Gopherus agassizii*, USFWS: threatened; CDFG: threatened) individuals and burrows, catclaw acacia (*Acacia greggii*), desert willow (*Chilopsis linearis*), mesquite (*Prosopis glandulosa*), crucifixion thorn (*Castela emoryi*, CNPS list 2.3), and *Coryphantha* cactus. A list of survey dates, personnel, and conditions can be found in Table 1.

Table 1. Dates and Survey Conditions for 2010 Burrowing Owl Surveys

Date	Time	Personnel	Temp (°F)	Sky (% cover)	Wind (MPH)
01/25/10	1510 – 1810	BL, CS, CT, DC, DM, JJ, JL, RB, RC, TM	62.3 – 55.0	30 – 95	0 – 3
01/26/10	0550 – 0850 1511 – 1811	BL, BLo, CS, CT, DC, DM, JJ, JL, LR, RB, RC, SA, TM	37.5 – 42 59 – 53	0 100	0 – 2 4 – 5
01/27/10	0550 – 0850 1512 – 1812	BL, BLo, CS, CSn, CT, DC, DM, DP, JJ, JL, LR, RB, RC, SA, TM	47.5 – 52.8 60.5 – 56.0	100 60 – 20	0 – 1 1 – 2
01/28/10	0549 – 0849 1513 – 1813	BL, BLo, CS, CSn, CT, DC, DM, DP, JJ, JL, LR, RB, RC, SA, TM	46 – 52 65 – 53	0 – 10 0	0 – 2 0 – 5
01/29/10	0548 – 0848	BL, BLo, CS, CSn, CT, DC, DM, DP, JJ, JL, LR, RB, RC, SA, TM	39 – 43	10 - 70	0 – 3
02/01/10	1517 – 1817	AB, BL, CR, CS, CSn, CT, DM, DP, JJ, JL, RB, RC, RM, SA	58 - 54	50 – 70	0 – 3

Table 1. Dates and Survey Conditions for 2010 Burrowing Owl Surveys

Date	Time	Personnel	Temp (°F)	Sky (% cover)	Wind (MPH)
02/02/10	0545 – 0845 1518 – 1818	AB, BL, CR, CS, CSn, CT, DM, DP, JJ, JL, RB, RC, RM, SA	36 – 47 63 – 56	5 – 10 90 - 40	0 – 2 0 – 6
02/03/10	0545 – 0845 1519 – 1819	AB, BL, CR, CS, CSn, CT, DM, DP, JJ, JL, RB, RC, RM, SA, TM	37 – 46 66 – 61	0 0	0 – 4 1 – 4
02/04/10	0544 – 0844 1520 – 1820	AB, BL, CS, CSn, CT, DM, DP, JJ, JL, RB, RC, RM, SA, TM	45 – 47 70 – 56	2 – 60 5 - 90	0 – 2 2 – 5
02/05/10	0543 – 0843	AB, BL, CS, CSn, CT, DM, DP, JJ, JL, RB, RC, RM, SA, TM	47 – 46	90 – 100	2 – 4
02/08/10	1520 – 1820	CS, CSn, DC, DM, DP, JJ, RB, RC, SA, TM	68 – 51	20 – 0	1 – 3
02/09/10	0605 – 0640	CS, CSn, DC, DM, DP, JJ, JL, RB, RC, SA, TM	40 – 44	20 – 90	1 – 3

List of personnel: AB – Alyssa Berry, BC – Brian Compton, BL – Brian Latta, BLo – Brian Lohstroh, CR – Cheryl Rustin, CS – Crissy Slaughter, CSn – Cara Snellen, CT – Carol Thompson, DM – Dennis Miler, DP – Dallas Pugh, JJ – Jeff Jarvis, JL – Julie Love, LR – Lee Ripma, RB – Rick Bailey, RC – Ron Cummings, RM – Robin Murray, SA – Sundeep Amin, TM – Theresa Miller

RESULTS

No BUOW were detected onsite during 2007 surveys of the Project site. There were three separate observations made of BUOW during the 2008 field effort. Two of the observations in 2008 were located in the north-central portion of the Project site (cells 11 and 15), while the third was in the BLM Area of Critical Environmental Concern (ACEC) to the southeast (Figure 2).

During 2010 surveys, two BUOW were observed, one in the east central portion of the site (cell 12), and one in the south central portion of the site (cell 6). These sightings appear to be separate from those made in 2008. Twelve potential BUOW burrows with sign were observed throughout the site, and a BUOW pellet was observed along the northeast boundary, within the

1000 foot buffer area. Locations of BUOW and potential burrows observed in the study area in 2010 are shown on Figure 2.

Other sensitive species observed in the study area during 2010 surveys include crucifixion thorn, desert tortoise, Le Conte's thrasher (*Toxostoma lecontei*, BLM: Sensitive, USFWS: Bird of Conservation Concern; CDFG: Species of Special Concern), and loggerhead shrike (*Lanius ludovicianus*, USFWS: Birds of Conservation Concern; CDFG: Species of Special Concern [nesting]). A complete list of species observed in the study area can be found in the Solar One Application For Certification (08-AFC-13).

DISCUSSION

BUOW may use the Project site for breeding, wintering, foraging, and/or migration stopovers. The occupancy of suitable BUOW habitat can be verified at a site by an observation of at least one BUOW, or the presence of BUOW sign at or near a burrow entrance. BUOW will reuse burrows year after year; therefore, a site should be assumed occupied if at least one BUOW has been observed occupying a burrow there within the last three years (California Burrowing Owl Consortium 1993). Based on survey results, it is presumed that there are at least three separate BUOW territories occur onsite and a fourth territory occurs within 2000 feet of the eastern project boundary with the ACEC (Figure 2).

AVOIDANCE AND MINIMIZATION MEASURES

The following BUOW avoidance and minimization measures will be implemented for this Project:

- Pre-construction surveys for occupied owl burrows will be conducted within 30 days prior to initial site disturbance.
- BUOW pairs within 500 feet of any activities that exceed ambient noise and/or vibration levels will be monitored during ground disturbance activities.
- A 500-foot setback and additional noise/visual barriers and signage will be established from any active burrows within the Project area.
- All owls occupying burrows that will be temporarily or permanently impacted by the Project will be actively relocated, and the following CDFG take avoidance measures will be implemented:
 - a. Occupied burrows shall not be disturbed during nesting season (February 1 – August 31) unless a qualified biologist can verify through non-invasive methods that egg

Chris Huntley
Senior Associate/Biologist
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February 15, 2009
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laying/incubation has not begun or juveniles are foraging independently and are able to fly.

- b. A qualified biologist must relocate owls, confirm that owls have left burrows prior to ground-disturbing activities, and monitor the burrows. Once evacuation is confirmed, the biologist should hand evacuate and fill burrows to prevent occupation.
 - c. Relocation of BUOW shall be approved by and conducted in consultation with CDFG.
- A replacement burrow(s) would be installed within the ACEC east of the Project if an occupied burrow is removed from the Project site.
 - Compensatory mitigation for tortoise habitat will also mitigate for BUOW habitat loss.

Thank you for the opportunity to be of assistance. Please call me or Dr. Patrick Mock if you have any questions.

Sincerely,

URS CORPORATION



Cheryl Rustin
Biologist

CR/PM:ml



Patrick Mock, Ph.D. CSE, CWB®
Principal Scientist

Attachments:

Figure 1 – Vicinity Map

Figure 2 – BUOW Survey Area and Results Map

cc:

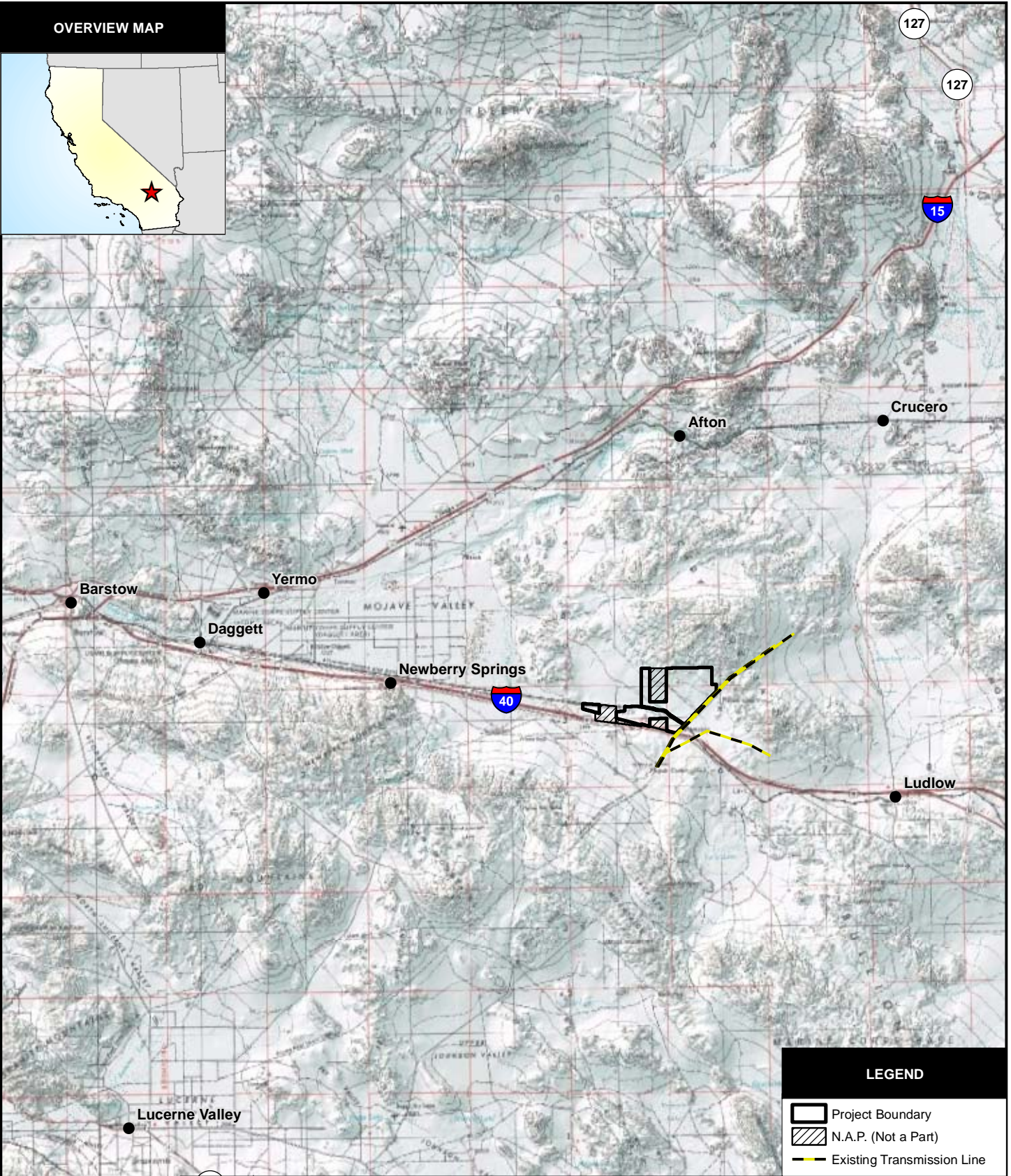
Chris Meyer, CEC
Jim Stobaugh, BLM
Chris Otahal, BLM
Larry LaPre, BLM
Becky Jones, CDFG
Ashleigh Blackford, USFWS
Felicia Bellows, Tessera Solar
Angela Leiba, URS
Calico Solar Proof of Service List

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February 15, 2009
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LITERATURE CITED

- The California Burrowing Owl Consortium. 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. April, 2003
- Collins, C.T. 1979. The ecology and conservation of burrowing owls. Pages 6-17 Proceedings of the National Audubon Society symposium of owls of the west, their ecology and conservation, Scheaffer, P.P. and S.M. Ehlers (editors). National Audubon Society Western Education Center, Tiburon, CA.
- Johnsgard, P. 1988. North American Owls: Biology and Natural History. Smithsonian Inst. Press. Washington D.C. 295pp.
- Remsen, J.V., 1978. Bird species of special concern in California. California Department of Fish and Game, Sacramento. Wildlife. Management Administration. Report No. 78-1. 54 pp.
- URS Corporation (URS). 2009. Biological Resources Technical Report for the Solar One Solar Power Generating Facility, San Bernardino, California. San Diego, CA. December 21, 2009.

OVERVIEW MAP



LEGEND

-  Project Boundary
-  N.A.P. (Not a Part)
-  Existing Transmission Line



SOURCES: ESRI;
Huit-Zollars, Inc (site plan Aug. 2009);
USGS (7.5' quads various dates).

GENERAL VICINITY MAP
CALICO SOLAR



4 0 4 8 Miles

SCALE: 1" = 8 Miles(1:506,880)

SCALE CORRECT WHEN PRINTED AT 8.5X11

CREATED BY: LG

DATE: 02-16-10

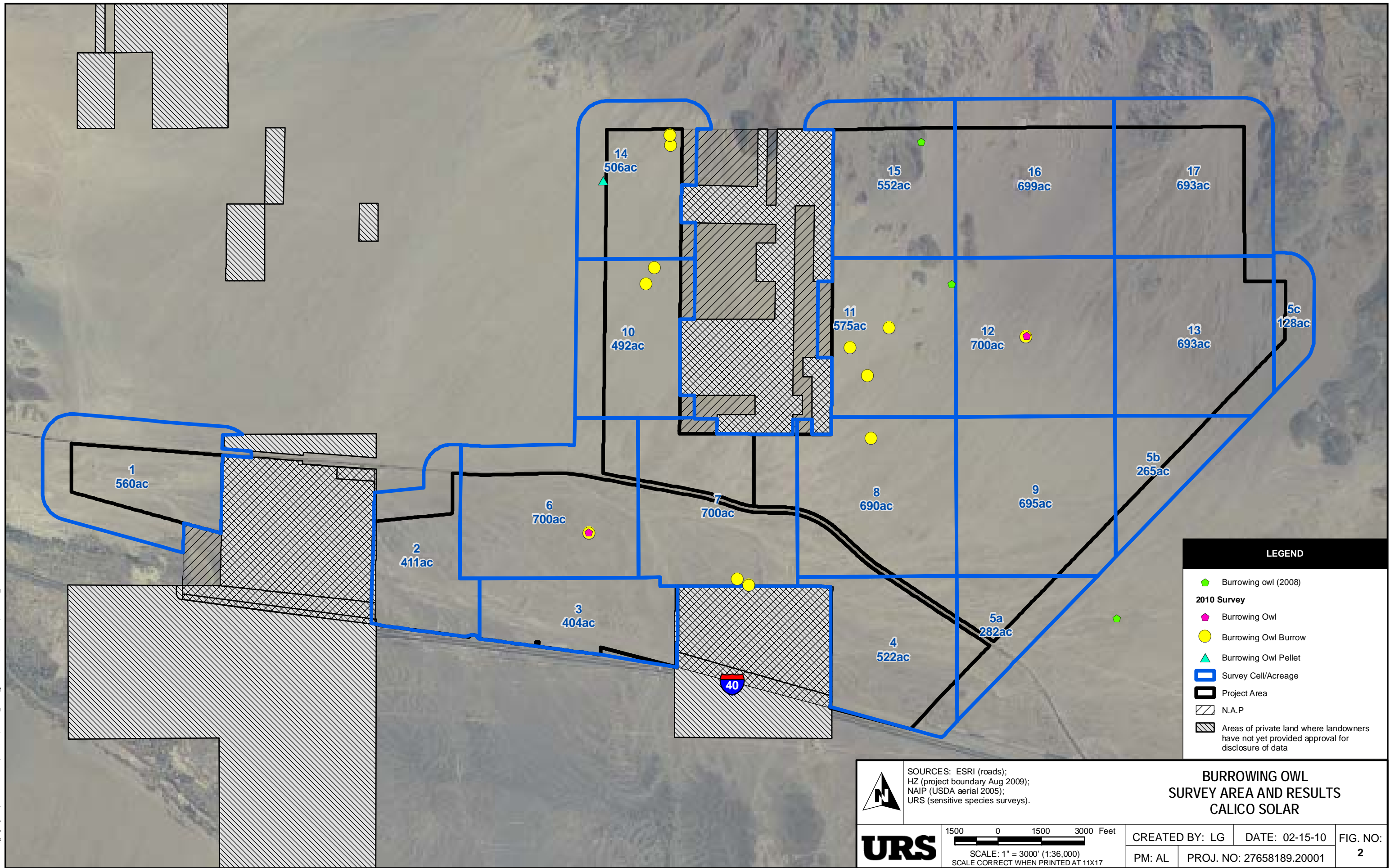
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**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV**

**APPLICATION FOR CERTIFICATION
For the SES SOLAR ONE PROJECT**

Docket No. 08-AFC-13

PROOF OF SERVICE

(Revised 12/2/09)

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DECLARATION OF SERVICE

I Corinne Lytle, declare that on February 19, 2010, I served and filed copies of the attached Applicant's Submittal of the Calico Solar Burrowing Owl Survey Report. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:

[www.energy.ca.gov/sitingcases/solarone].

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

**_____
FOR SERVICE TO ALL OTHER PARTIES:**

sent electronically to all email addresses on the Proof of Service list;

by personal delivery or by depositing in the United States mail at _____ with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (**preferred method**);

OR _____

depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 08-AFC-13
1516 Ninth Street, MS-4
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I declare under penalty of perjury that the foregoing is true and correct.

Original signed by _____

Corinne Lytle