

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE  
STATE OF CALIFORNIA**

In the Matter of the Application of SOUTHERN )  
CALIFORNIA EDISON COMPANY (U 338-E) ) A.13-10-XXX  
for a Certificate of Public Convenience and )  
Necessity for the West of Devers Upgrade Project )  
and for an Interim Decision Approving the )  
Proposed Transaction between Southern )  
California Edison and Morongo Transmission )  
LLC )

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**PROPONENT'S ENVIRONMENTAL ASSESSMENT (PEA)  
IN THE WEST OF DEVERS UPGRADE PROJECT**

**VOLUME 6 OF 7**

<p>This PEA is being filed separately from the Application and is being submitted as an Archival DVD and CD-ROM</p>
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**APPENDIX G**  
**BURROWING OWL SURVEY REPORT**  
**(Report for 2012 and 2013)**

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**BURROWING OWL SURVEY REPORT  
2012 AND 2013**



**SOUTHERN CALIFORNIA EDISON  
WEST OF DEVERS UPGRADE PROJECT**

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## EXECUTIVE SUMMARY

Burrowing owl (*Athene cunicularia*) burrow searches and/or breeding season burrowing owl surveys for the Southern California Edison (SCE) West of Devers Upgrade Project (Proposed Project) were conducted during the 2012 and 2013 breeding seasons. In 2012, burrowing owl burrow and owl surveys were conducted by field personnel from LSA Associates, Inc. (LSA), BioGin Consulting (BioGin), and Dudek, with lead staff from Kidd Biological, Inc. (Kidd) along the SCE right-of-way (ROW; called the West of Devers corridor [WOD corridor]), and in 2013, LSA field personnel surveyed proposed and existing access road areas, telecommunication lines, subtransmission lines, staging yards, and the Alternative Project route on the Morongo Band of Mission Indians Reservation (Reservation), which are outside of the existing WOD corridor (Figure 1; all figures in Appendix A).

The Proposed Project would upgrade the existing WOD system by replacing existing 220 kilovolt (kV) transmission lines and associated structures with new, higher-capacity 220 kV transmission lines and structures; modifying existing substation facilities; removing and relocating existing subtransmission (66 kV) lines; removing and relocating existing distribution (12 kV) lines; and making various telecommunication improvements.

The approximately 50-mile-long Proposed Project is located primarily within the existing WOD corridor in incorporated and unincorporated areas of Riverside and San Bernardino Counties including the Reservation, and the Cities of Banning, Beaumont, Calimesa, Colton, Grand Terrace, Loma Linda, and Redlands.

Field personnel from LSA, Dudek, BioGin, and Kidd performed all field work. The 2012 surveys for burrows and nesting burrowing owls were conducted within the SCE ROW and a 500-foot buffer; while the 2013 surveys were conducted along proposed access roads, telecommunications lines, and within staging yards, and included a 500-foot buffer, access permitting, around all survey areas (Project Study Area). Survey methods generally followed the guidelines and recommendations from the California Department of Fish and Wildlife (CDFW) (CDFW guidelines) as presented in the Staff Report on Burrowing Owl Mitigation (CDFG<sup>1</sup> 2012) and the *Burrowing Owl Survey Protocol and Mitigation Guidelines* prepared in April 1993 by The California Burrowing Owl Consortium (Consortium) (CDFG 1993; now called the CDFW).

During the 2012 focused surveys, hundreds of suitable burrows were identified throughout the ROW survey area, but the only occupied burrows recorded were located from the City of Beaumont east to the Devers Substation. A total of 19 nesting pairs of burrowing owls were documented during 2012 surveys. Based on the final 2012 distribution records, it is assumed that this eastern half of the survey area also supported several migrant individuals. Except for one probable migrant/dispersing burrowing owl on March 22, 2012, no burrowing owls were recorded west of State Route 79 (SR-79), or from along the Interstate 10 (I-10) corridor from the City of Banning west to the City of Grand Terrace and north to the City of San Bernardino.

During the March 6 to May 16, 2013, burrow survey, 21 suitable burrows, including many with owl sign, were identified. This included one occupied burrow with at least one adult burrowing owl and another owl in proximity to burrows with owl sign. Two additional potential burrowing owl burrows,

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<sup>1</sup> The California Department of Fish and Game (CDFG) changed its name as of January 1, 2013, to the California Department of Fish and Wildlife (CDFW).

one with owl sign and one without owl sign were observed just outside of the survey boundary. During the May 20 to June 12, 2013, focused breeding season surveys of the underground telecommunication routes, no active burrows or owls were detected.

## INTRODUCTION

LSA and Kidd oversaw performance and assisted with burrowing owl (*Athene cunicularia*) surveys for the Proposed Project (Figure 1; all figures in Appendix A). This report summarizes results for both the 2012 and 2013 burrow search and focused surveys. All surveys were conducted within the WOD corridor and Proposed Project disturbance areas and a 500 foot buffer (Project Study Area). The 2012 surveys included three types of survey assessments (i.e., habitat, burrow, and breeding), while the 2013 surveys included two types of survey assessments (i.e., habitat and burrow) with the third assessment type (i.e., breeding) conducted only for underground telecommunication routes. Surveys, with some modification due to Proposed Project scope and scheduling constraints, followed the field methods guidelines recommended by the CDFW (CDFW guidelines) as presented in the Staff Report on Burrowing Owl Mitigation (CDFG<sup>2</sup> 2012) and the *Burrowing Owl Survey Protocol and Mitigation Guidelines* prepared in April 1993 by the Consortium (CDFG 1993; now called the CDFW).

Surveys consisted of a habitat assessment, general burrow searches, and focused surveys for the burrowing owl in the Project Study Area during the 2012 breeding season. In 2013, a habitat assessment and general burrowing owl burrow search were conducted during the first part of the 2013 breeding season to assess burrowing owl occurrence and document any incidentally observed breeding pairs located within the Project Study Area. Four breeding season surveys per the CDFG 1993 guidelines were conducted for the underground telecommunication routes. This report discusses methods and survey results.

## Project Description

The Proposed Project would upgrade an existing transmission line system by replacing 220 kV transmission lines and associated structures with new, higher-capacity 220 kV transmission lines and structures; modifying existing substation facilities; removing and relocating existing subtransmission (66 kV) lines; removing and relocating existing distribution (12 kV) lines; and making various telecommunication improvements (Figure 1).

## Project Location

The approximately 48-mile-long Proposed Project is located in incorporated and unincorporated areas of Riverside and San Bernardino Counties and crosses private, public, and tribal lands in the Cities of Banning, Beaumont, Calimesa, Colton, Grand Terrace, Loma Linda, and Redlands, unincorporated communities such as Cabazon and Whitewater, and the Reservation. The Proposed Project connects the western Vista Substation in the City of Grand Terrace, in San Bernardino County, with the eastern

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<sup>2</sup> The California Department of Fish and Game (CDFG) changed its name as of January 1, 2013, to the California Department of Fish and Wildlife (CDFW).

Devers Substation near North Palm Springs, Riverside County, and the northern San Bernardino Substation in the City of San Bernardino, San Bernardino County (Figure 1).

## Study Area

The Project Study Area (Figure 1) encompasses the entire Proposed Project footprint, SCE right-of-way (ROW), and a 500-foot buffer surrounding the Proposed Project WOD corridor, access permitting. In addition, the Proposed Project footprint includes all necessary access roads, telecommunication lines, subtransmission lines, and staging yards that may be used to complete the Proposed Project with a 500-foot buffer also around these areas. While the access roads are ubiquitous throughout the Project Study Area, the specific locations of the 10 staging yards are as follows:

- Mountain View No. 1 Material and Equipment Staging Area - West of Mountain View Avenue and north of San Bernardino Avenue; 2.8 acres
- Lugonia Material and Equipment Staging Area - South of Lugonia Avenue and west of Segment 1 corridor; 3.7 acres
- Grand Terrace Material and Equipment Staging Area - Northeast corner of Mount Vernon Avenue and Canal Street; 4.4 acres
- Poultry Material and Equipment Staging Area - Located directly in front of MCM Poultry located on San Timoteo Canyon Road; 13.0 acres
- San Timoteo Creek Material and Equipment Staging Area - 30595 San Timoteo Canyon Road, Redlands; 17.0 acres
- Beaumont No. 1 Material and Equipment Staging Area - Northeast corner of South California Avenue and East Third Street; 3.9 acres
- Beaumont No. 2 Material and Equipment Staging Area - Maple Avenue and East Third Street (853 E. Third Street, Beaumont); 4.7 acres
- Hathaway No. 1 Material and Equipment Staging Area - 600 N. Hathaway Street, Banning; 30.0 acres
- Hathaway No. 2 Material and Equipment Staging Area - Northeast side of East Williams Street and North Hathaway; 14.0 acres
- Devers Material and Equipment Staging Area - East of SCE's Devers Substation; 9.5 acres

Topography, land use, and vegetation communities are variable within the Project Study Area. The dominant land cover types identified within the Project Study Area are (1) developed and/or disturbed; (2) desert scrub; (3) forbland/grassland; and (4) coastal sage scrub; with much smaller amounts of chaparral, agriculture, alluvial scrub, and woodland habitats. Habitat suitable for burrowing owl foraging and nesting occurs throughout most of the Project Study Area (Figure 1).

## LITERATURE REVIEW

The California Natural Diversity Data Base (CNDDDB) was used to help identify known burrowing owl localities in the Proposed Project vicinity. Previous site-specific reports and assessments conducted for the Proposed Project were reviewed, and other burrowing owl experts were consulted (CNDDDB; GANDA 2011; Kidd et al. 2007). All relevant information on vegetation communities, land use, topography, and other biological resources within the Project Study Area was evaluated prior to beginning field surveys.

### Burrowing Owl Distribution, Ecology, and Trends

The burrowing owl is a small, easily-recognized, ground-dwelling owl found in grassland and arid regions of western North America. It has become uncommon and localized in southern California, and is a California Species of Special Concern (SSC). It is active both night and day (Poulin et al. 2011; Sibley 2003). The breeding range of the burrowing owl extends from Canada to Central America. In the United States, it ranges from the Pacific coast east to North Dakota, and south to northwest Texas. Populations from the Great Plains and the Great Basin are generally migratory, while populations in southern California are primarily resident, and elsewhere throughout its southern range only partially migratory (Poulin et al. 2011, Kidd and Bloom unpublished). Some of the small populations in portions of the northern range will winter in their nesting locations. Starting in October, winter migrants begin arriving at scattered locations in southern California, which temporarily augment resident populations (Poulin et al. 2011; Gervais et al. 2008).

Burrowing owls occur in a variety of lowland habitat types such as grassland, open shrubland, prairie, and desert scrub. They can also occupy agricultural areas, golf courses, and vacant lots. Burrowing owls feed primarily on insects such as grasshoppers, crickets, moths, beetles, and small mammals such as California voles (*Microtus californicus*) and mice (*Peromyscus* spp.), but will take any prey they can handle including birds, amphibians, and reptiles. Burrowing owls typically hunt insects by walking and hopping on the ground or by scanning from a perch. Larger prey is usually taken by flight from a perch or when hovering above the ground. They will also opportunistically feed on insects or other small animals that enter their burrows. Like many raptors, burrowing owls often cache prey during the breeding season (Poulin et al. 2011; Gervais et al. 2008). Burrowing owls typically forage close to their burrows, usually within 2,000 feet (610 meters); however, they have been documented hunting up to 1.6 miles (2.7 kilometers) away from their burrows (Gervais et al. 2008).

Predators of burrowing owls include other raptors, American badger (*Taxidea taxus*) or other mesopredators, and domestic cats (*Felis catus*) and dogs (*Canis lupus familiaris*). Other sources of mortality include wind turbines, barbed wire fences, shooting, vehicle collisions, poisoning, and road maintenance or agricultural activities that collapse burrows (Poulin et al. 2011). Based on banding data, the oldest-known wild burrowing owls survived for 8 years (Poulin et al. 2011, United States Geological Survey [USGS] Bird Banding Lab Longevity Records).

Burrowing owls can begin breeding in Southern California as early as February and can continue until September, with a peak between mid-April and mid-July. Burrowing owl pairs are primarily monogamous, and throughout Southern California are primarily resident, maintaining year-round pair bonds. Burrowing owls often nest in semi-colonial groups in prime habitat; however, in highly

developed areas, single pairs are more common than colonies. Burrowing owls typically produce 1 to 11 eggs (usually 7 to 9) per clutch that are incubated by the female. A second clutch may occur if the first fails, or occasionally following fledging during years of peak prey abundance. Young hatch after 28 to 30 days of incubation, and fledge at 44 to 53 days of age. Juveniles undergo a rapid molt between 45 and 70 days of age, after which they become indistinguishable from adults in coloration (Haug et al. 1993; Pyle 1997). Natal dispersal distance can vary; one study recorded a distance of 90 miles (150 kilometers) (Poulin et al. 2011; Gervais et al. 2008). Banded juveniles have been recorded using natal burrows until late fall to early winter (Kidd unpublished data).

Nest sites are commonly located on sparsely-vegetated, gently-sloping hillsides, along the banks of irrigation canals and levees, or along washes and road banks (Poulin et al. 2011; Gervais et al. 2008). Burrowing owls usually nest in the abandoned burrows of rodents such as the California ground squirrel (*Spermophilus beecheyi*), but they may also use those of other animals such as badgers, coyotes (*Canis latrans*), gray foxes (*Urocyon cinereoargenteus*), and desert tortoises (*Gopherus agassizii*). Natural cavities, culverts, pipes, and manmade nest boxes are also utilized. Areas with friable, well-drained soils are preferred, as these conditions allow them to modify existing burrows or excavate their own, if necessary. A curious feature of some burrowing owls is their propensity to decorate their burrow entrances and nest chambers with debris (e.g., scat/dung and trash) from the local environment.

The current breeding range of the burrowing owl has contracted in North America and has declined significantly throughout its range, especially in coastal southern California. Once considered abundant in southwestern California, the burrowing owl has undergone dramatic reduction regionally, and is effectively extirpated from Santa Barbara and Ventura Counties, and Los Angeles County west of the San Gabriel Mountains (Kidd et al. 2007; Wilkerson and Siegel 2010; Gervais et al. 2008). The primary contributing factors to this decline include rapid urbanization and habitat conversion; exposure to pesticides and other agrichemicals; eradication of ground squirrels and other fossorial mammals upon which burrowing owls are dependent for breeding habitat; and increasing predation by exotic or domestic animals (Kidd et al. 2007; Wilkerson and Siegel 2010; Gervais et al. 2008).

One remaining breeding location in Orange County (Kidd et al. 2007) and the limited numbers of known pairs in San Diego and eastern Los Angeles Counties are indicative of the extreme fragmentation of burrowing owl habitat that has already occurred (Kidd, et al. 2007). Outside of the Imperial Valley, western Riverside and southwestern San Bernardino Counties currently contain the greatest number of breeding burrowing owls in Southern California. Most breeding burrowing owls exist on privately-owned land, and without effective conservation measures, continuing habitat loss can result in complete extirpation of breeding burrowing owls from coastal southern California (Kidd et al. 2007; Gervais et al. 2008). In contrast, the Imperial Valley in southeastern California continues to support one of the largest remaining concentrations of burrowing owls (Kidd et al. 2007; Gervais et al. 2008).

## METHODOLOGY

Burrowing owl surveys were conducted throughout the Project Study Area within suitable habitat, access permitting, including the WOD corridor, and disturbance areas outside of the ROW (e.g., transmission lines, staging yards, and access roads), and the Alternative Project on the Reservation.

Field personnel from LSA, BioGin, Dudek, and Kidd performed all field work in 2012 and/or 2013 (Appendix B).

The habitat assessments and burrow surveys conducted in 2012 and 2013 followed the field methods guidelines recommended by the CDFW (CDFW guidelines) and presented in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). These CDFW guidelines are also consistent with the *Burrowing Owl Survey Protocol and Mitigation Guidelines* prepared in April 1993 by the Consortium.

In 2012, methods were implemented for a modified survey approach, which focused the survey effort on determining the owl use areas and population distribution and evaluated all burrows (approximately 500) for burrowing owl use suitability. CDFW guidelines call for several biologists walking straight-line transects spaced up to 65 feet (20 meters) apart to search for burrows, sign, and owls, followed by four breeding season survey visits (one survey each in April, May, June, and after mid-June) to each burrowing owl location and/or potential burrow location. This was the general schedule, but with surveys ceasing after breeding season occupancy was determined. Based on the results of the burrow survey in March 2012, each occupied site and each site supporting sign was visited at least one or two times between the end of May and late June to determine where nesting birds were located versus sites that might have been occupied by migrants during the burrow survey in March. In this way, nest site locations were mapped in relation to the WOD corridor, and burrowing owl pairs were documented that may require avoidance measures during construction.

In 2013, burrow survey methods followed those implemented in 2012, but the follow-up focused burrowing owl surveys were not conducted to each potential burrow due to a limited survey schedule that precluded following the CDFW guidelines of the four breeding season survey visits (one survey each in April, May, June, and after mid-June) to each potential burrow. However, for the underground telecommunication lines, breeding season surveys following the Consortium 1993 methods were completed following the habitat and burrow assessment.

Methodologies are described more specifically in the following paragraphs for the burrowing owl habitat assessment, burrow survey, and focused breeding season surveys.

Since methods for the habitat assessment and burrow surveys followed the CDFG and Consortium methods, they also followed the Western Riverside and the Coachella Valley Multiple Species Habitat Conservation Plans (MSHCP) burrowing owl survey guidelines (Western Riverside County MSHCP 2003; Coachella Valley MSHCP 2007). Therefore, the methodology used for these surveys is also in compliance with both MSHCP guidelines; however, because the breeding season surveys were not conducted in accordance with Consortium guidelines, additional surveys may be required if compliance with these MSHCPs is pursued.

### **Habitat Assessment**

A habitat assessment was performed in 2012 and 2013 by reviewing maps and information regarding the Project Study Area and surrounding landscape such as biological resources, geological and hydrological characteristics, soils, management history, and vegetation types. In addition, a previous Proposed Project-related habitat assessment was conducted by Garcia and Associates (GANDA), which concluded suitable habitats were present throughout the Project Study Area and recommended

additional surveys for the entire Proposed Project (GANDA 2011). Pertinent information was reviewed and assessed from local raptor experts, scientific publications, and museum collections to ensure surveys were conducted in all appropriate locations within the Project Study Area (CNDDDB 2012; GANDA 2011; Kidd et al. 2007; MSCHP 2003; Kidd and Bloom unpublished data).

Based on the habitat assessment, it was determined that focused burrow searches during a burrow survey would be necessary throughout most of the Project Study Area except where ground cover was obscured by tall, dense grasses, the area was highly developed, or private property restricted pedestrian access. In such cases, peripheral surveys would be conducted with binoculars to view as much of the survey area as possible.

### **Burrow Surveys**

Burrow surveys consisted of several biologists walking straight-line transects spaced up to 65 feet (20 meters) apart to search for burrows, surrogate structures, sign, and owls. Burrow surveys were conducted from March 7 to April 1, 2012 (WOD corridor); from March 3 to April 4, 2013 (e.g., access roads and staging yards); and June 18 to 22, 2012, and May 14, 15, and 16, 2013 (Reservation), in areas with suitable burrowing owl habitat (Table A). Locations of suitable, inactive burrows, burrows with owls, or burrows with owl sign were identified and recorded with handheld global positioning system (GPS) units. Where access within the Proposed Study Area was prohibited or not possible (e.g., steep, unsafe terrain), burrow searches were performed with binoculars and spotting scopes from adjacent accessible areas. Burrow searches were conducted using 2–12 field personnel walking transects, depending on habitat type and vegetation height for 100 percent visual coverage of the ground. All burrow surveys were conducted in March and April, which is before or during the peak breeding season (April 15 through July 15; Consortium 1997). Surveyors recorded all suitable burrows and documented burrowing owls and their sign, such as pellets, prey remains, whitewash, feathers, or tracks.

Burrow surveys were concluded by revisiting each area supporting large groupings of potential burrows to reevaluate and take detailed notes on the condition of the burrows. Evaluations included consideration of vegetation height and type, topography, actual burrow size, distance to avian predator nest, and distance to nearest known owl(s). Therefore, based on the results of the burrow survey in March and April, each occupied site and each site supporting sign was visited one or two times between the end of May and late June to distinguish possible nesting bird locations from sites that might have been occupied by migrants during the burrow survey in March and April. In this way, some burrow locations could be reasonably eliminated from the breeding season surveys, nest site locations could be mapped, and burrowing owl pairs could be documented.

**Focused Burrowing Owl Breeding Season Surveys.** Focused burrowing owl breeding season surveys in 2012 were performed by burrowing owl experts from Kidd and selected supplemental staff under the direction of Kidd to standardize the burrow assessment and limit disturbance at potentially occupied burrows. With agreement from SCE (email dated May 18, 2012), Kidd used modified survey procedures. Due to the large size of the Project Study Area and preconstruction owl surveys of the Project Study Area, the methods were modified slightly so that focused breeding season surveys in a given area ceased when positive identification of breeding individuals were made, as opposed to continuing surveys for four visits. Therefore, rather than visiting hundreds of potentially suitable

**Table A: Habitat Assessment and Burrowing Owl Survey Information for 2012 and 2013**

<b>Project Location</b>	<b>Date</b>	<b>Surveyor</b>
<b>Habitat Assessment and Burrow Survey</b>		
<b>Right-of-Way (2012)</b>	3/7	AN, EM, KM, ST*
	3/8	AG, AN, EM, JK*, KM, MT, WP
	3/9	AG, CW, JaB, JoB, KM, MT, WP
	3/10	CW, DB, DM, JaB, JoB, ML
	3/11	DB, DM, JoB, ML
	3/12	CW, DP, EM, ML, ST*
	3/13	EM, DP, TD
	3/14	CB, DM, DP
	3/15	AG, CB, DM, DP
	3/16	AG, DP, NJ, MR
	3/17	NJ, MR
	3/21	AG, DR, EM, JMo
	3/22	AG, CK, DM, DR, EW, JMo, JoB, ML, WP
	3/23	AG, CK, DB, DM, DR, EW, JMo, JoB, ML, WP
	3/24	CK, DB, JoB, NJ, MR
	3/25	NJ, MR
	3/27	AG, DC, KM, MW
	3/28	AG, CB, CK, DC, EM, JK*, KM, MT
	3/29	AG, CB, CK, DC, DP, EM, EW, JoB, MT
	3/30	AG, CK, DB, DC, DP, EM, EW, JoB, MT
3/31	CK, DB, DC, JoB	
4/1	DB, JoB	
<b>Reservation (2012)</b>	6/18	BS, EM, EW, GI, HS, JaC, JK*, JMi, LF, NK*, RG, SD
	6/19	BS, EM, EW, GI, HS, JaC, JH, JK, JMi, LF, NJ, RG, SD
	6/20	BS, CB, EW, GI, JaC, JH, JK*, JMi, LF, MR, NK*, RG, SD
	6/21	BS, CB, EW, GI, JaC, JK*, JMi, LF, RG, SD
	6/22	BS, LF, RG, SD
<b>Focused Burrowing Owl Survey</b>		
<b>Right-of-Way (2012)</b>	4/21	JK*, NK*
	4/28	JK*, NK*
	5/26	JK*, NK*, MR
	5/27	JK*, NK*, MR
	5/28	JK*, NK*, MR
	6/3	JK*, MR
	6/10	JK*, MR
<b>Habitat Assessment and Burrow Survey</b>		
<b>Access Roads, Distribution Lines, and Telecommunication Lines (2013)</b>	3/6	AG, DR, JiC, JMo, SB
	3/7	AG, CB, DR, JiC, JMo
	3/8	DR, JiC, JMo
	3/12	GI, EH, LR, SB
	3/13	EH, LR, SB
	3/14	EH, LR, SB
	3/19	DR, EH, JMo, LR, SB
	3/20	DR, EH, JMo, LR
	3/21	DR, JMo
3/26	DR, JMo, LR	

**Table A: Habitat Assessment and Burrowing Owl Survey Information for 2012 and 2013**

Project Location	Date	Surveyor
	3/27	DR, JMo, LR, SB
	3/28	DR, JMo, LR
	4/2	JMo, LR
	4/3	DR, JiC, JMo, LR
	4/4	DR, JMo, LR
<b>Staging Yards (2013)</b>	3/6	SS, WD (Mountain View, Lugonia, Beaumont 1, Beaumont 2, Devers)
	4/25	ML, SS (Poultry, San Timoteo)
	5/15	SS (Hathaway 1)
	5/16	SS (Grand Terrace)
	5/20	SS (Hathaway 2)
<b>Reservation (2013)</b>	5/14	DR, JMo
	5/15	DR, JMo
	5/16	DR, JMo, LR
<b>Focused Burrowing Owl Survey</b>		
<b>Underground Telecommunication Line (2013)</b>	5/20	SdB
	5/22	JRB
	6/11	SdB
	6/12	SdB

\* Field lead conducted an assessment of the study area, accompanied surveyors during survey, and/or conducted focused training sessions and review of field conditions and findings.

**Weather:** Weather conditions were suitable during surveys. Skies were generally clear to partially overcast with wind speeds typically less than 20 mph (project area is in a high wind area) and temperatures less than 90 degrees Fahrenheit.

**Field Lead:** JK= Jeff Kidd, NK= Nina Jimerson-Kidd, ST= Scott Thomas

**Surveyor:**

AG = Anthony Greco	DR = Daniel Rosie	JMi = Jason Miller	MW = Matthew Willis
AN = Agnieszka Napiatek	EH = Elizabeth Hohertz	JMo = Jaime Morales	RG = Riordin Goodwin
BS = Brooks Smith	EM = Erin Martinelli	JoB = Joel Boggus	SB = Sarah Barrera
CB = Claudia Bauer	EW = Emily Wier	JRB = Jodi Ross-Borrego	SD = Sandy Duarte
CK = Christopher Kallstrand	GI = Gin Ingram	KM = Kyle McCann	SdB = Stefan de Barros
CW = Christopher Waterston	HS = Hillary Sweeney	LF = Logan Freeberg	SS = Stan Spencer
DB = Daniel Burnett	JaB = Jared Bond	LR = Lonnie Rodriguez	TD = Thomas Dixon
DC = Dave Compton	JaC = Jason Collins	ML = Maria Lum	WD = Wendy Davis
DM = Danielle Mullen	JH = Jacqueline Hall	MR = Milo Rivera	WP = Wendy Pearson
DP = Dale Powell	JiC = Jill Carpenter	MT = Matthew Teutimez	

burrows four times, each burrow was assessed by Kidd for inclusion in the breeding season surveys. Many burrows were excluded from breeding season surveys because they lacked favorable habitat characteristics, any sign of burrowing owl activity, or were located in proximity to other raptor nests or other burrowing owl pairs, both of which would discourage their occupation; however, some excluded burrows were still visited. For example, Kidd biologists visited some of the more suitable areas west of Interstate 10 (I-10) and the City of Calimesa that were initially eliminated from focused burrowing owl survey, and it was verified that all burrows suitable for these surveys in 2012 were located east of I-10 and the City of Calimesa.

Based on the results of the burrow survey, each occupied site and each site supporting sign was visited one or two times between late April and late June 2012 to distinguish where nesting owls were located from sites that might have been occupied by migrants during the burrow survey in March. In this way, nest site locations were mapped and burrowing owl pairs were documented. For 2012 surveys on the Reservation, access was granted in June; therefore, a modified survey method was necessary.

In 2013, the habitat assessment and burrow survey was followed by four focused burrowing owl breeding season surveys performed exclusively along areas within the proposed underground telecommunication lines in the Cities of Beaumont and Banning in Riverside County. These surveys followed the Consortium guidelines. These guidelines require four pedestrian survey visits, from 2 hours before sunset to 1 hour after, or from 1 hour before sunrise to 2 hours after during the peak breeding season (April 15 through July 15). Surveys were not conducted during inclement weather when wind speed was greater than 12 miles per hour (mph), if possible, but most of the Proposed Project is in a high wind area, or during periods of precipitation or dense fog. Surveys have greater detection probability if conducted when ambient temperatures are greater than 68 degrees Fahrenheit (°F), winds less than 8 mph, and cloud cover is less than 75 percent (Conway et al. 2008).

Any detection of burrowing owls was recorded. Data included describing the numbers of individuals or pairs present, sex and estimated ages, numbers of active burrows observed, any other identifying descriptors or conditions, and behaviors observed. Potential burrows were approached carefully to check for owl sign. If a burrowing owl was detected near a burrow, further observations were made from a safe distance using binoculars or spotting scopes to minimize disturbances that would alter natural owl behavior. Further observation was then conducted from the vehicle or a safe distance. If detectable disturbance of owls occurred, the site was vacated for a follow-up survey, if needed, to determine use or breeding status. Any evidence indicating owl mortality at a site was also recorded. All burrowing owls observed during surveys were assessed for identification bands. Any individuals with color bands were reported to the Bird Banding Laboratory.

## RESULTS

Survey results are shown on Figure 2. Representative photographs of burrowing owls and their habitat are shown in Figure 3.

### 2012 Results

In 2012, a total of 537 suitable burrows were identified during the burrow survey of the ROW and the surrounding 500-foot buffer. During the focused owl surveys, Kidd biologists eliminated 326 of these burrows from further consideration. All burrows west of I-10 and Beaumont were eliminated after the first round of focused owl surveys. Suitable burrows were defined as those generally located away from avian predator nests, supporting favorable habitat characteristics including, but not limited to, a complex of burrows and refuge sites, and/or within relatively flat terrain located in known or previously documented occupied sites. All suitable burrows for focused owl surveys were located east of Calimesa/Beaumont north and east of I-10. Of the 211 burrows not eliminated, all were visited at least two to three additional times. Of the 211 suitable burrows, a total of 89 burrows supported owls or evidence of recent sign.

Of the 89 burrows that supported sign, 19 nesting pairs of burrowing owls were recorded within the Proposed Study Area with no large nesting colonies found (Table B). Two of the 19 pairs were located outside the 500-foot buffers (approximately 10 feet and 270 feet from the buffer). A California Native Species Field Survey Form documenting the 19 breeding pairs was prepared and submitted to the CDFW (Appendix C). In the future, these pairs could easily nest within the ROW or the 100-foot or 500-foot buffers as home ranges are typically more than 5 acres.

**Table B: 2012 Nesting Burrowing Owl Survey Results**

Nest No.	UTM_X	UTM_Y	Location	Habitat	Nest within ROW	Nest within 100-foot Buffer	Nest within 500-foot Buffer
1	538613	3756053	Devers Substation	Creosote			X**
2	538481	3754689	Devers Substation	Creosote	X		
3	534137	3754543	East of SR-62	Creosote		X	
4	536870	3754436	West of SR-62	Creosote			X**
5	533951	3754926	East of Whitewater	Creosote			X
6*	533285	3754683	Whitewater	Quarry	X		
7*	533285	3754683	Whitewater	Quarry	X		
8	529747	3754250	West of Whitewater	Creosote			X
9	529059	3754540	West of Whitewater	Creosote			X
10	525376	3754671	North of SR-111	Creosote		X	
11	524849	3754657	East Reservation	Disturbed		X	
12	517897	3754446	Reservation Water Tanks – East of Cabazon Outlet Mall	Disturbed			X
13	516374	3754897	Reservation East Entrance	Disturbed			X
14	515883	3755042	Reservation West Entrance	Creosote		X	
15	506740	3756199	Beaumont	Grassland	X		
16	506398	3756045	Beaumont	Grassland			X
17	504766	3756195	Beaumont	Grassland		X	
18	505088	3756135	Beaumont	Grassland			X
19	504032	3756413	Beaumont	Grassland	X		
<b>Total</b>					<b>5</b>	<b>5</b>	<b>9</b>

\* Approximate UTM location. Two nests at similar UTM coordinates.

\*\* Nest outside 500-foot Project Study Area, but 10 feet (Nest 1) and 270 feet (Nest 4) from the 500-foot buffer.

SR-62 = State Route 62

SR-111 = State Route 111

ROW = right-of-way

UTM = Universal Transverse Mercator

Hundreds of suitable burrows were identified throughout the Project Study Area; however, all of the confirmed occupied burrows and nesting pairs were limited to the eastern half of the Project Study Area within a 22-mile reach from Beaumont to the Devers Substation. No nesting burrowing owls were detected west of the City of Beaumont (i.e., SR-79 and I-10); however, on March 22, 2012, one burrowing owl was observed within the ROW between San Timoteo Canyon and I-10. This owl was observed in mixed coastal sage scrub (CSS)-disturbed grassland habitat, but no burrow was

associated with this location. No additional owl observations were made at this location; therefore, it was presumed to be a migrant or dispersing individual.

No banded owls were observed during the 2012 surveys.

### 2013 Results

During the 2013 habitat assessment and burrow search surveys of the access roads, distribution and telecommunication lines, and staging yards, many areas were found to contain suitable habitat for burrowing owls. However, suitable habitat was found to be lacking at all substation locations (developed) and staging yards (lacking burrows and shelters).

A total of 21 potentially suitable or suitable burrows were identified within the 2013 Project Study Area. Results included 10 potential burrows without sign and 9 potential burrows with sign; in addition, one occupied burrow with at least one adult burrowing owl was observed on March 8, and another owl was observed in proximity to several burrows with owl sign. The occupied burrow was located east of the Reservation and the community of Cabazon near Rushmore Avenue and Tamarack Road, while the owl near the burrows was found about 0.7 mile west of Whitewater River.

Additionally, just outside of the 2013 Project Study Area's 500-foot survey buffer, surveyors observed one potential burrow without sign and one potential burrows with sign. See Figure 2 for burrowing owl results and Table C below for a summary of the 2013 burrow survey findings.

No definitively nesting pairs were observed in 2013, but focused breeding season surveys were not conducted in most areas with potentially suitable burrows. In addition, no banded owls were detected.

**Breeding Season Burrowing Owl Survey.** During the May 20 to June 12, 2013, focused breeding season surveys of the underground telecommunication routes, no active burrows or owls were detected. Focused surveys were conducted for the two telecommunication lines south of I-10 and the Cities of Beaumont and Banning, but suitable burrow habitat was determined to be lacking at other underground telecommunication line areas south of the San Bernardino Substation along Redlands Boulevard (a mowed, grassy field lacking potential burrows and suitable shelters). Survey conditions for the focused burrowing owl surveys are shown below in Table D with survey locations shown on Figure 2.

**Predators.** Burrowing owl predators that may prey on adult or young were recorded in 2012 and 2013. Predatory species include the red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), ferruginous hawk (*Buteo regalis*), prairie falcon (*Falco mexicanus*), golden eagle (*Aquila chrysaetos*), coyotes, and other native carnivores. In addition, feral cats and dogs can also depredate burrowing owl, particularly in areas near human habitation.

**Table C: 2013 Burrowing Owl Burrow Survey Results**

Location No.	UTM_X	UTM_Y	Location	Habitat	Sign	Burrow within Project Area	Burrow within 100-foot Buffer	Burrow within 500-foot Buffer
1	478689	3764983	East of San Bernardino Junction	CSS	Potential Burrow, No Sign			X
2	481202	3763241	East of San Bernardino County Landfill	G/F	Burrow, Sign		X	
3	481222	3763353	East of San Bernardino County Landfill	CSS	Burrow, Sign			X
4	482257	3763721	San Timoteo Canyon Road South	G/F	Potential Burrow, No Sign		X	
5*	483729	3762791	East of Smiley Road; Ebinezer Ranch	G/F	Burrow, Sign			X*
6	488926	3760144	West of El Casco Lakes, near San Timoteo Creek	G/F	Burrow, Sign			X
7	492088	3758771	West of El Casco Substation	G/F	Burrow, Sign		X	
8	493574	3758852	East of El Casco Substation	G/F	Potential Burrow, No Sign			X
9*	493661	3758853	East of El Casco Substation	G/F	Potential Burrow, No Sign			X*
10	493779	3758852	East of El Casco Substation	G/F	Potential Burrow, No Sign			X
11	494110	3758646	East of El Casco Substation	G/F, Oak	Potential Burrow, No Sign			X
12	509670	3756637	Banning, West of San Gorgonio River	G/F	Potential Burrow, No Sign			X
13	510238	3751283	Banning, South of I-10	CSS	Burrow, Sign			X
14	512895	3755803	Gravel Mine	D/D	Burrow, Sign	X		
15	524164	3754607	Between Cabazon and the community of Whitewater	DS	Burrow, Sign			X
16	526297	3754164	West of the community of Whitewater	DS	Owl, Burrow, Sign			X
17	526910	3754202	West of the community of Whitewater	DS	Potential Burrow, No Sign			X
18	530510	3754097	East of the community of Whitewater	DS	Potential Burrow, No Sign		X	

**Table C: 2013 Burrowing Owl Burrow Survey Results**

Location No.	UTM_X	UTM_Y	Location	Habitat	Sign	Burrow within Project Area	Burrow within 100-foot Buffer	Burrow within 500-foot Buffer
19	532454	3753999	West of Whitewater River	DS	Owl		X	
20	532523	3753990	West of Whitewater River	DS	Burrow, Sign		X	
21	532549	3753969	West of Whitewater River	DS	Burrow, Sign		X	
22	532829	3754962	West of Whitewater River	DS	Potential Burrow, No Sign			X
23	536996	3754448	West of SR-62 and Devers Substation	DS	Potential Burrow, No Sign		X	
<b>Total</b>						<b>1</b>	<b>8</b>	<b>12+2*</b>

\* Outside the 500-foot Project Study Area. Observed incidentally while accessing the Project Study Area.

CSS = coastal sage scrub

I-10 = Interstate 10

DS = desert scrub

SR-62 = State Route 62

G/F = grassland/forbland

UTM = Universal Transverse Mercator

**Table D: Focused Burrowing Owl Survey Information for the Underground Telecommunication Lines**

2013 Date	Time	Weather <sup>1</sup>	Surveyor
May 20	0530–0745	Clear, cool to mild (52–62°F), calm	SdB
May 22	0520–0740	Mostly cloudy to overcast (80–100%), mild (58–59°F), calm to light air	JRB
June 11	0435–0745	Partly cloudy (30–40%), cool to warm (55–72°F), light breeze to light air	SdB
June 12	0440–0745	Mostly clear (5%), mild to warm (59–76°F), calm to light breeze	SdB

<sup>1</sup> Seaman’s terms used to describe the wind conditions.

°F = degrees Fahrenheit

SdB = Stefan de Barros

JRB = Jodi Ross-Borrego

## CONCLUSIONS

Burrowing owls were found to occupy grassland (pastures), creosote bush scrub, disturbed or developed areas, desert wash, and active rock quarry habitats. Figure 2 shows the 2012 and 2013 survey results, which include potential burrows, burrows with sign, and burrowing owl detection locations.

The western half of the Project Study Area has potential to support migrant and dispersing burrowing owls. These overall findings may reflect survey timing because the survey efforts in this portion of the Project Study Area were conducted later in the migrant season and into the breeding season. As a

result, it is expected that greater numbers of burrowing owls could be present over a wider distribution in the Project Study Area during the peak migratory and non-breeding periods than the survey results indicate. Some burrowing owls that were documented during burrow searches in 2012 were not redetected during 2012 focused burrowing owl surveys; therefore, these birds are considered migrants. Many of the observations during the burrow survey consisted of owls standing under creosote or those associated with refuse piles where burrows were not present. It is difficult to determine exactly how many of these owls were wintering or dispersing individuals from 2011; however, these locations were not occupied by nesting burrowing owls during the 2012 breeding season. During the 2013 burrow surveys, one individual owl was observed at a burrow near an access road east of the community of Cabazon plus an additional 10 potential burrows without sign and 7 potential burrows with sign were also recorded.

The western 13-mile portion of the Project Study Area contains pockets of suitable nesting habitat; however, the majority has sub-optimal rolling topography and “Badlands” formations, along with higher numbers of avian predators, which are expected to discourage burrowing owls from occupying these areas. If these conditions remain the same, it is expected that any future surveys will produce similar results.

In conclusion, it is expected that the breeding burrowing owl population will maintain both similar numbers (19 breeding pairs found in 2012 and several use areas were identified in spring 2013) and locations within the eastern half of the Project Study Area in the near future, and a significant increase in breeding pairs in the western half of the Study Area is not expected.

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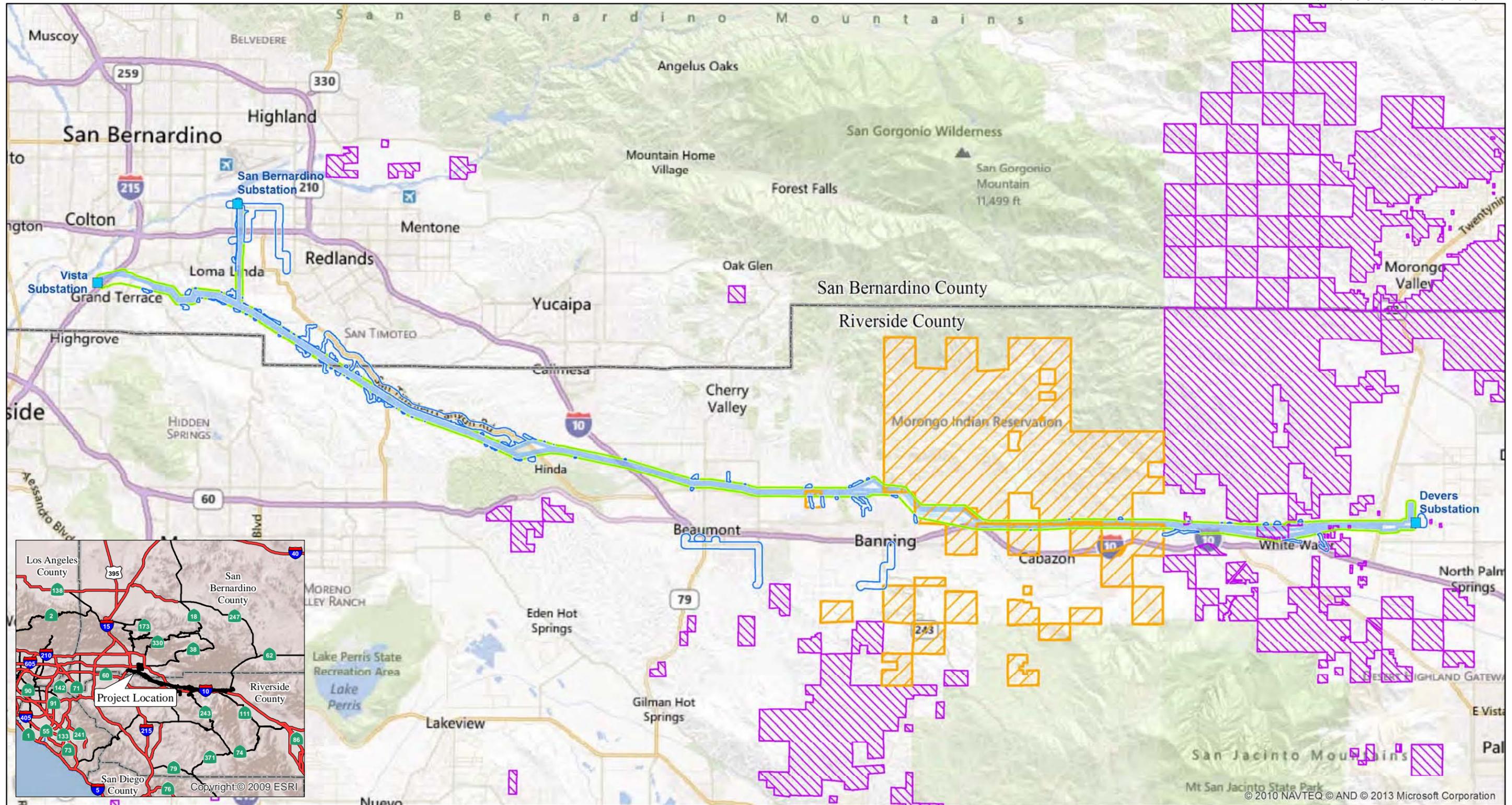
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## APPENDIX A

### FIGURES

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FIGURE 1

**SOUTHERN CALIFORNIA EDISON**  
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**LEGEND**

- Transmission Right-of-Way
- 2012 Survey Area: 500' from Right-of-Way
- 2013 Survey Area: 500' from Additional Project Areas
- Morongo Indian Reservation Lands
- U.S. Bureau of Land Management
- Substation

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Southern California Edison  
West of Devers Upgrade Project  
Project Location Map

SOURCE: SCE (9/2011, 11/2011)

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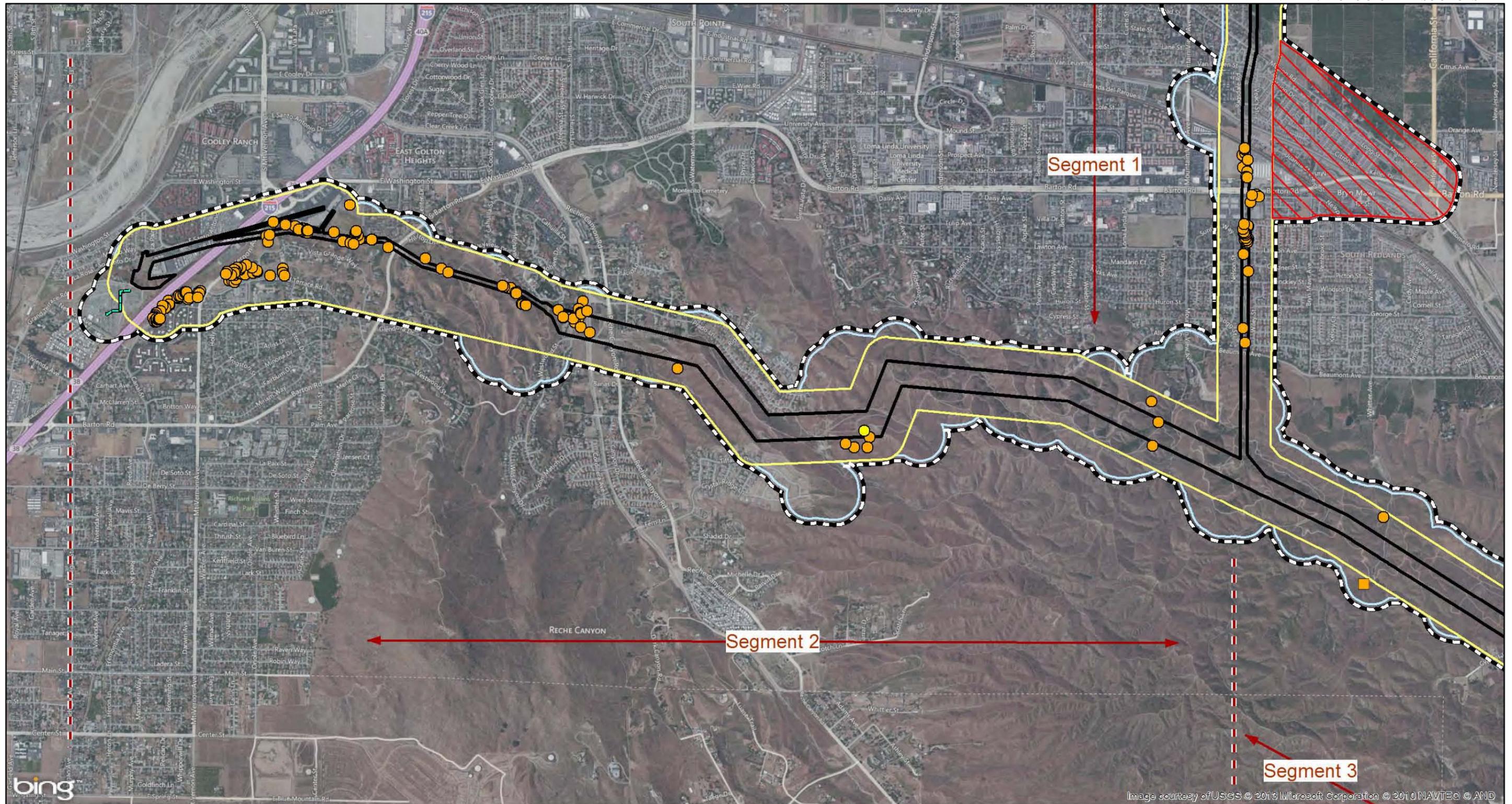


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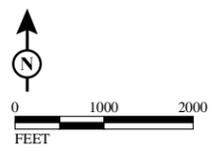
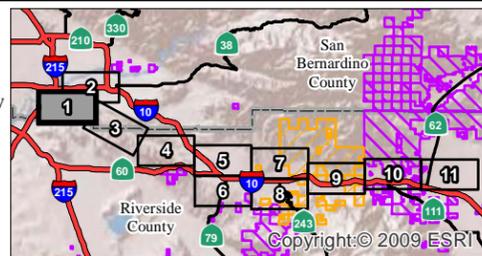
FIGURE 2  
Sheet 1 of 11



LEGEND

- West of Devers Study Area
- Transmission Right-of-Way
- Not Surveyed for Biological Resources
- 500' from Right-of-Way
- 500' from Disturbance Areas
- Proposed Underground Telecommunication Line Work
- Segment Breaks
- Morongo Indian Reservation Lands
- U.S. Bureau of Land Management

- | 2012 Burrowing Owl Results |                           | 2013 Burrowing Owl Results |                           |
|----------------------------|---------------------------|----------------------------|---------------------------|
|                            | Burrowing Owl with Burrow |                            | Burrowing Owl with Burrow |
|                            | Burrowing Owl             |                            | Burrowing Owl             |
|                            | Burrow with Owl Sign      |                            | Burrow with Owl Sign      |
|                            | Burrow without Owl Sign   |                            | Burrow without Owl Sign   |



SOURCE: SCE (9/2011, 11/2011)

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LEGEND

- West of Devers Study Area
- Transmission Right-of-Way
- Not Surveyed for Biological Resources
- 500' from Right-of-Way
- 500' from Disturbance Areas
- Proposed Underground Telecommunication Line Work
- Segment Breaks
- Morongo Indian Reservation Lands
- U.S. Bureau of Land Management

- | 2012 Burrowing Owl Results |                           | 2013 Burrowing Owl Results |                           |
|----------------------------|---------------------------|----------------------------|---------------------------|
|                            | Burrowing Owl with Burrow |                            | Burrowing Owl with Burrow |
|                            | Burrowing Owl             |                            | Burrowing Owl             |
|                            | Burrow with Owl Sign      |                            | Burrow with Owl Sign      |
|                            | Burrow without Owl Sign   |                            | Burrow without Owl Sign   |

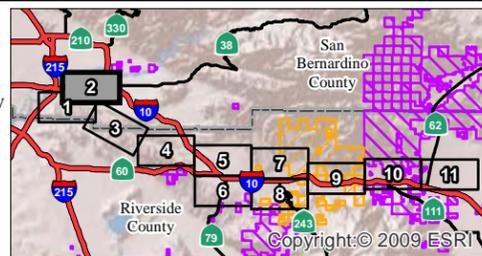


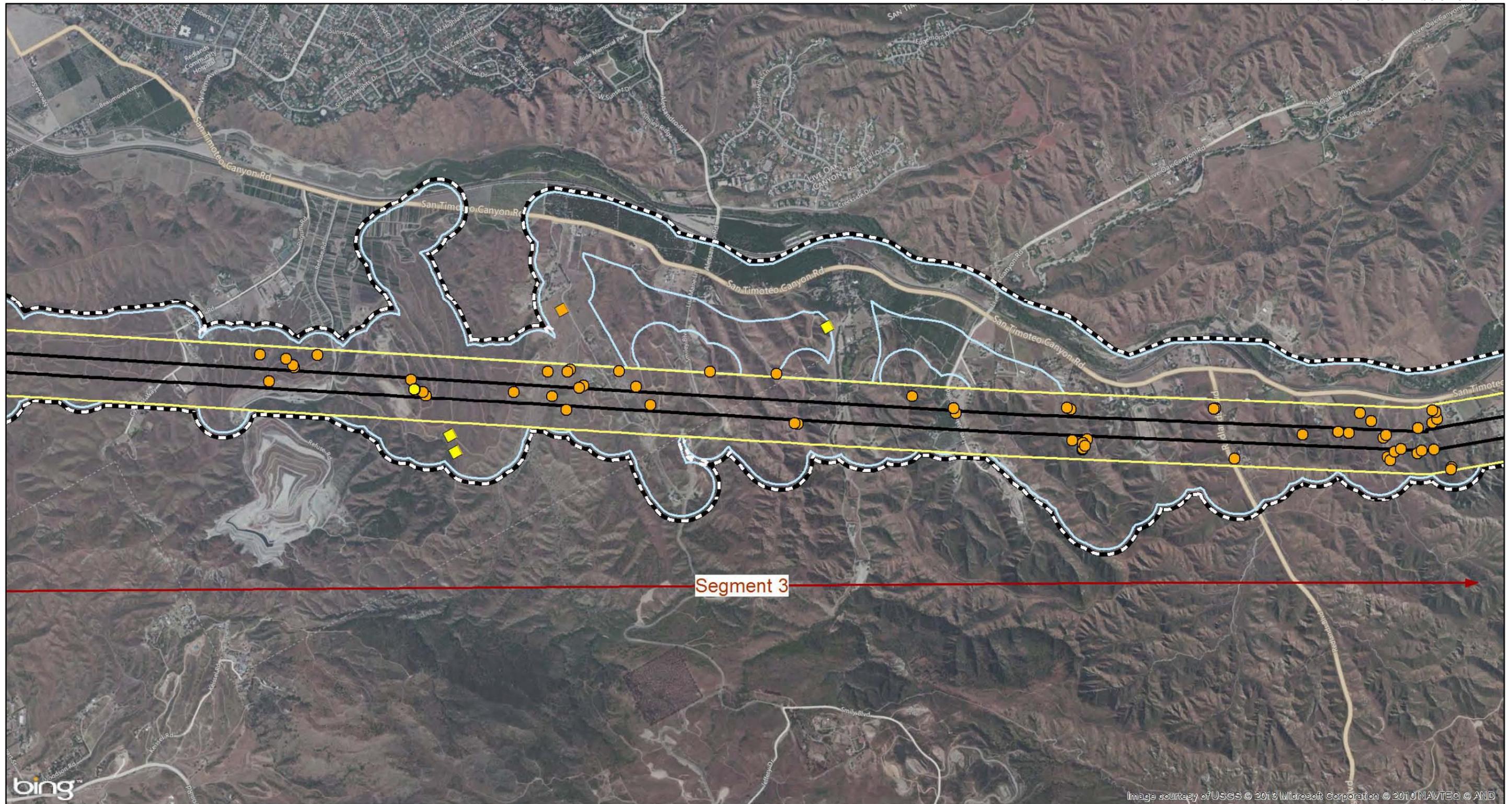
FIGURE 2  
Sheet 2 of 11

Southern California Edison  
West of Devers Upgrade Project  
2012 and 2013 Burrowing Owl Survey Results

SOURCE: SCE (9/2011, 11/2011)

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LEGEND

- West of Devers Study Area
- Transmission Right-of-Way
- Not Surveyed for Biological Resources
- 500' from Right-of-Way
- 500' from Disturbance Areas

- Proposed Underground Telecommunication Line Work
- Segment Breaks
- Morongo Indian Reservation Lands
- U.S. Bureau of Land Management

2012 Burrowing Owl Results

- Burrowing Owl with Burrow
- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign

2013 Burrowing Owl Results

- Burrowing Owl with Burrow
- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign

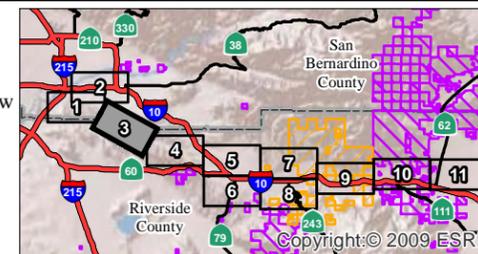


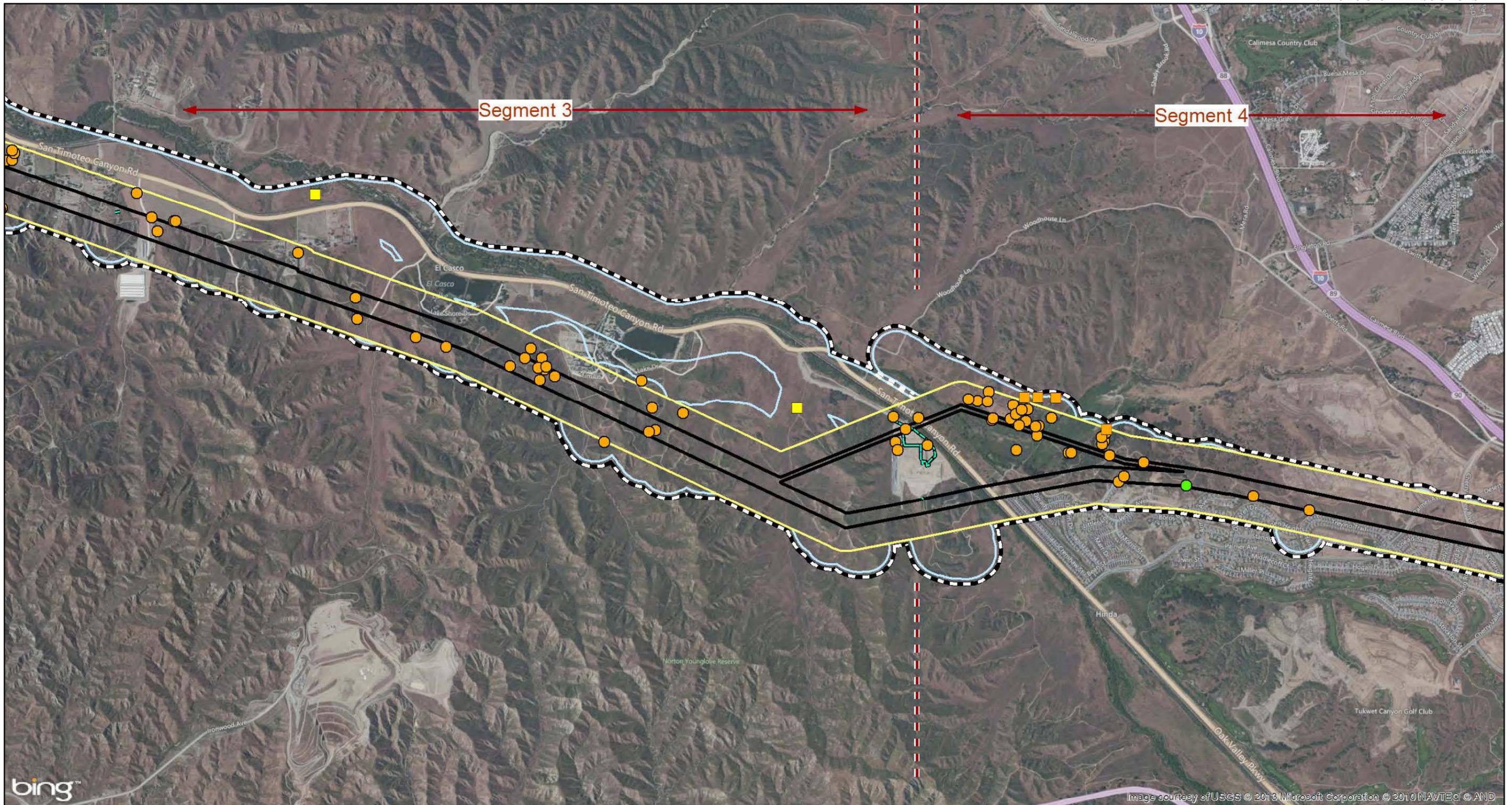
FIGURE 2  
Sheet 3 of 11

Southern California Edison  
West of Devers Upgrade Project  
2012 and 2013 Burrowing Owl Survey Results

SOURCE: SCE (9/2011, 11/2011)

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SOURCE: SCE (9/2011, 11/2011)

- LEGEND**
- West of Devers Study Area
  - Transmission Right-of-Way
  - Not Surveyed for Biological Resources
  - 500' from Right-of-Way
  - 500' from Disturbance Areas
  - Proposed Underground Telecommunication Line Work
  - Segment Breaks
  - Morongo Indian Reservation Lands
  - U.S. Bureau of Land Management

- 2012 Burrowing Owl Results**
- Burrowing Owl with Burrow
  - Burrowing Owl
  - Burrow with Owl Sign
  - Burrow without Owl Sign

- 2013 Burrowing Owl Results**
- Burrowing Owl with Burrow
  - Burrowing Owl
  - Burrow with Owl Sign
  - Burrow without Owl Sign

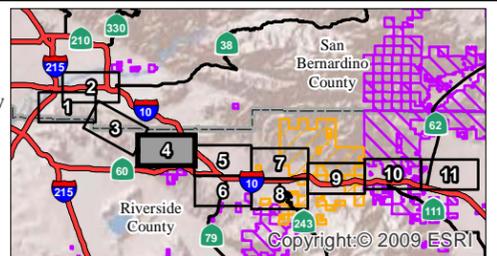
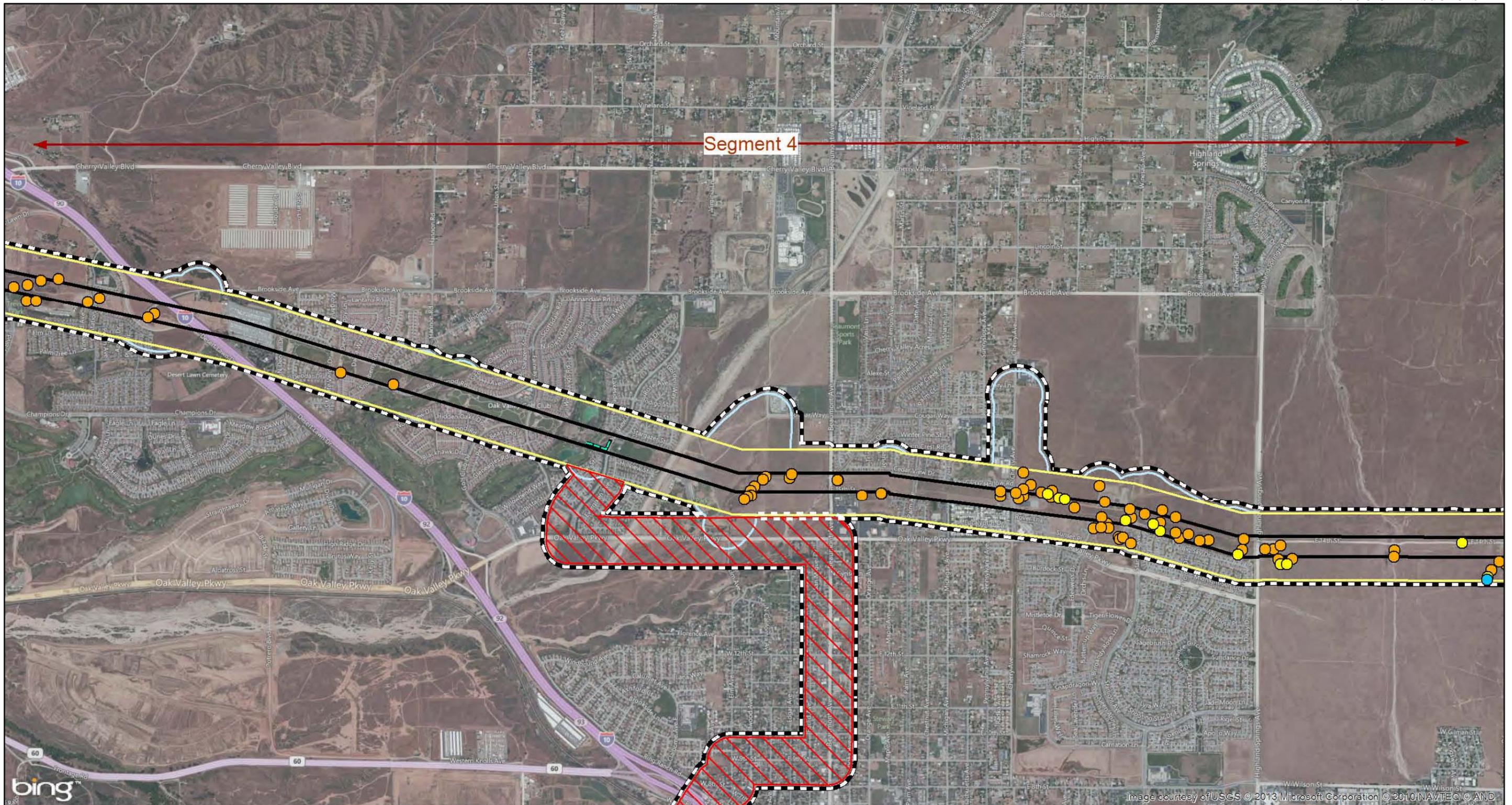


FIGURE 2  
 Sheet 4 of 11

Southern California Edison  
 West of Devers Upgrade Project  
 2012 and 2013 Burrowing Owl Survey Results

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**SOUTHERN CALIFORNIA EDISON**  
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**LEGEND**

- West of Devers Study Area
- Transmission Right-of-Way
- Not Surveyed for Biological Resources
- 500' from Right-of-Way
- 500' from Disturbance Areas
- Proposed Underground Telecommunication Line Work
- Segment Breaks
- Morongo Indian Reservation Lands
- U.S. Bureau of Land Management

**2012 Burrowing Owl Results**

- Burrowing Owl with Burrow
- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign

**2013 Burrowing Owl Results**

- Burrowing Owl with Burrow
- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign

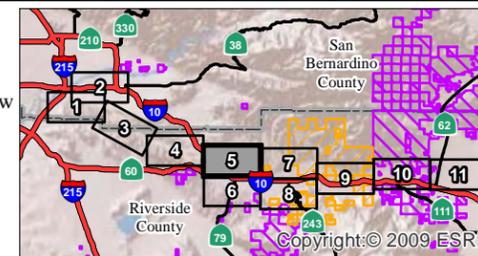
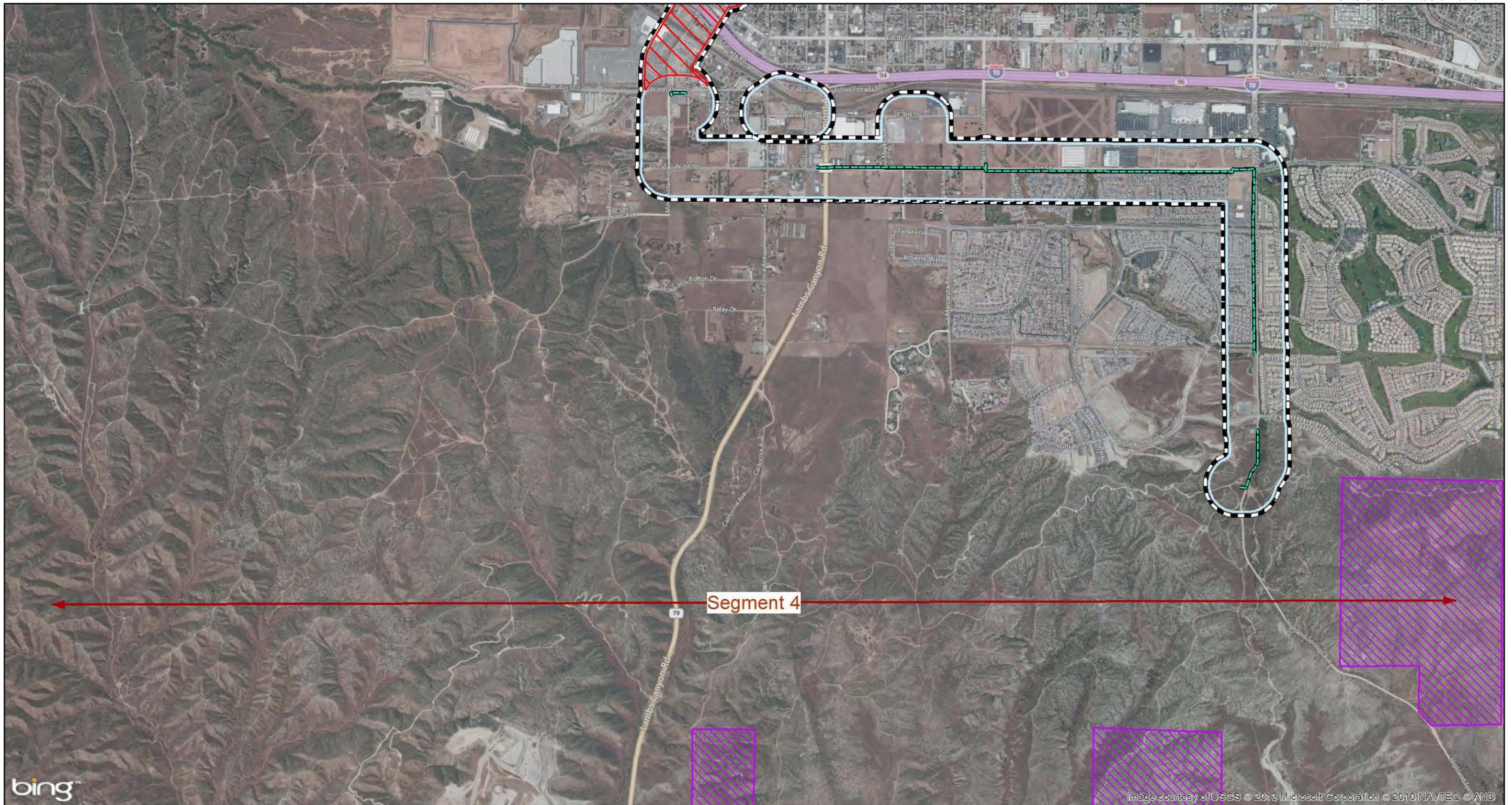


FIGURE 2  
Sheet 5 of 11

Southern California Edison  
West of Devers Upgrade Project  
2012 and 2013 Burrowing Owl Survey Results

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LEGEND

- West of Devers Study Area
- Transmission Right-of-Way
- Not Surveyed for Biological Resources
- 500' from Right-of-Way
- 500' from Disturbance Areas

- Proposed Underground Telecommunication Line Work
- Segment Breaks
- Morongo Indian Reservation Lands
- U.S. Bureau of Land Management

2012 Burrowing Owl Results

- Burrowing Owl with Burrow
- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign

2013 Burrowing Owl Results

- Burrowing Owl with Burrow
- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign



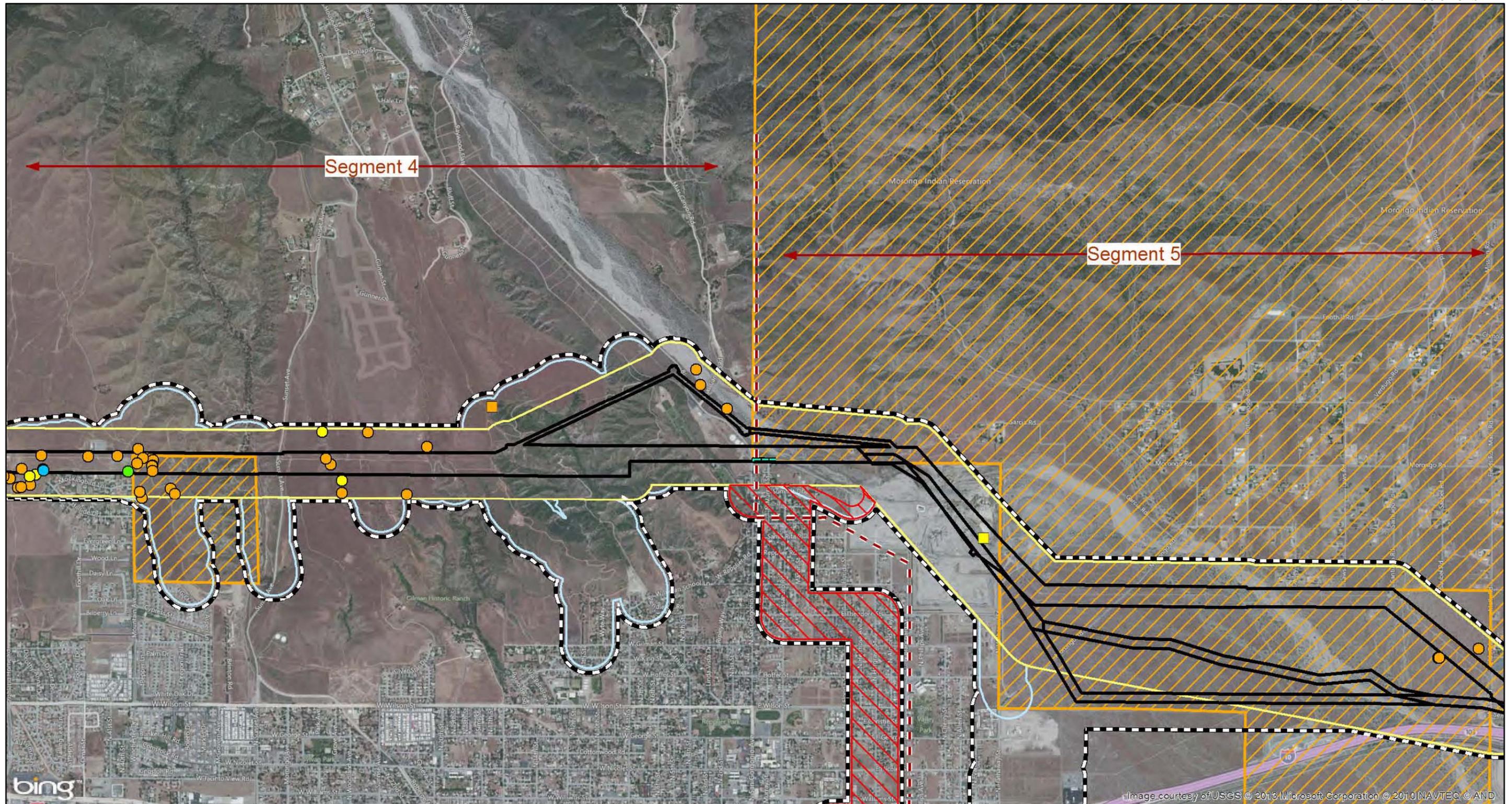
FIGURE 2  
Sheet 6 of 11

Southern California Edison  
West of Devers Upgrade Project  
2012 and 2013 Burrowing Owl Survey Results

SOURCE: SCE (9/2011, 11/2011)

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LEGEND

- West of Devers Study Area
- Transmission Right-of-Way
- Not Surveyed for Biological Resources
- 500' from Right-of-Way
- 500' from Disturbance Areas
- Proposed Underground Telecommunication Line Work
- Segment Breaks
- Morongo Indian Reservation Lands
- U.S. Bureau of Land Management

2012 Burrowing Owl Results

- Burrowing Owl with Burrow
- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign

2013 Burrowing Owl Results

- Burrowing Owl with Burrow
- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign

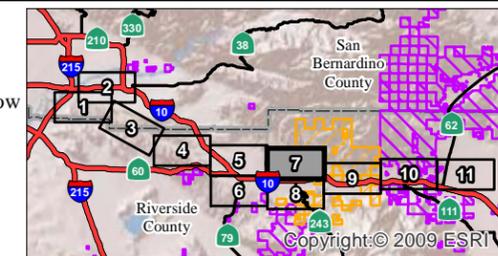
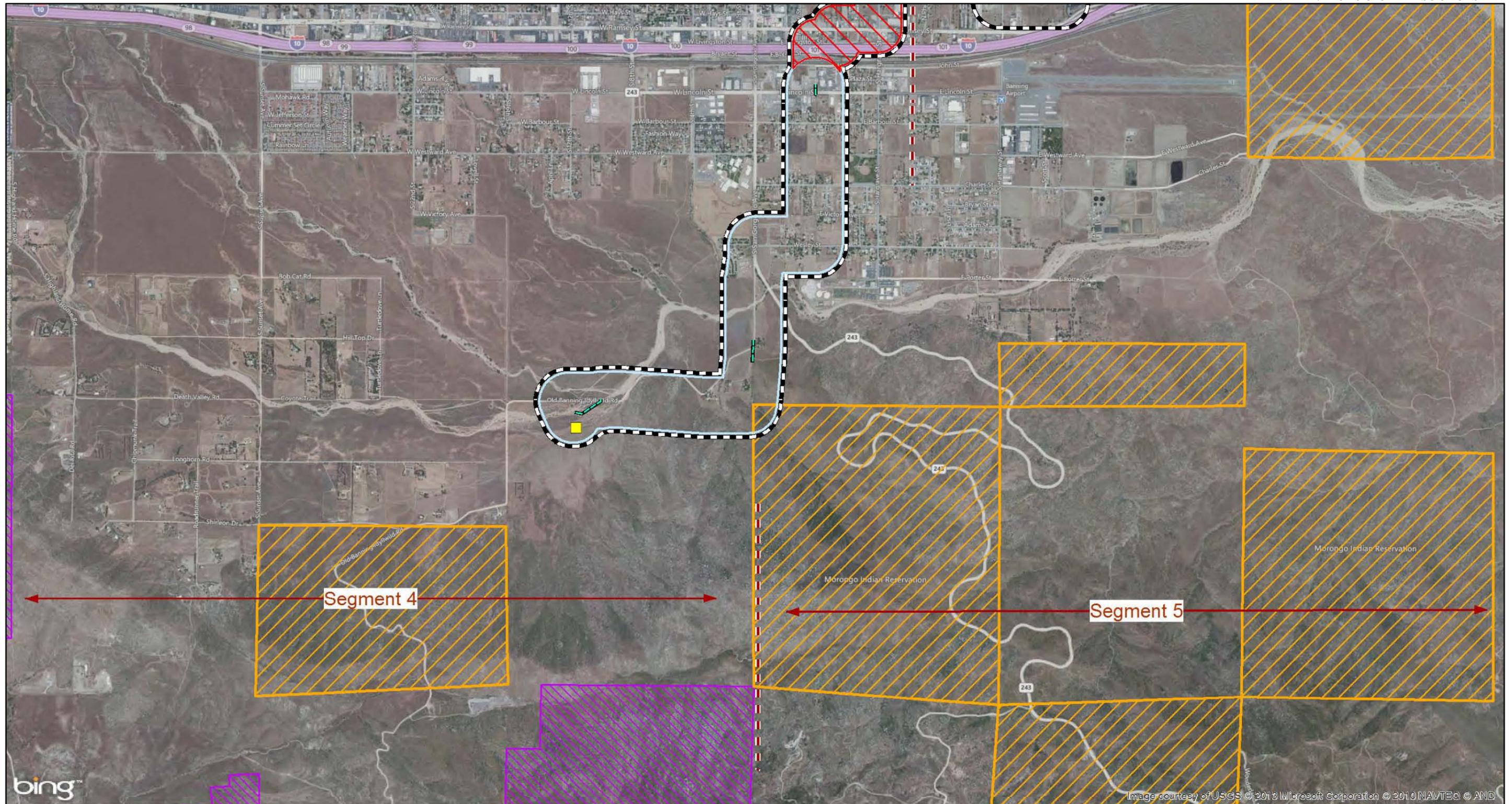


FIGURE 2  
Sheet 7 of 11

SOURCE: SCE (9/2011, 11/2011)

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**SOUTHERN CALIFORNIA EDISON**  
 An EDISON INTERNATIONAL™ Company

0 1000 2000  
 FEET

SOURCE: SCE (9/2011, 11/2011)

**LEGEND**

- West of Devers Study Area
- Transmission Right-of-Way
- Not Surveyed for Biological Resources
- 500' from Right-of-Way
- 500' from Disturbance Areas

- Proposed Underground Telecommunication Line Work
- Segment Breaks
- Morongo Indian Reservation Lands
- U.S. Bureau of Land Management

**2012 Burrowing Owl Results**

- Burrowing Owl with Burrow
- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign

**2013 Burrowing Owl Results**

- Burrowing Owl with Burrow
- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign

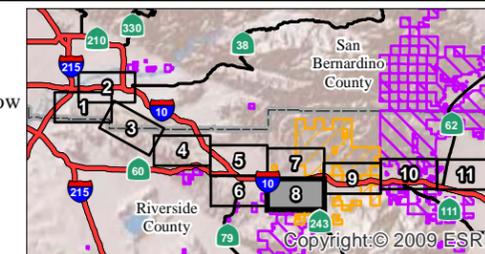
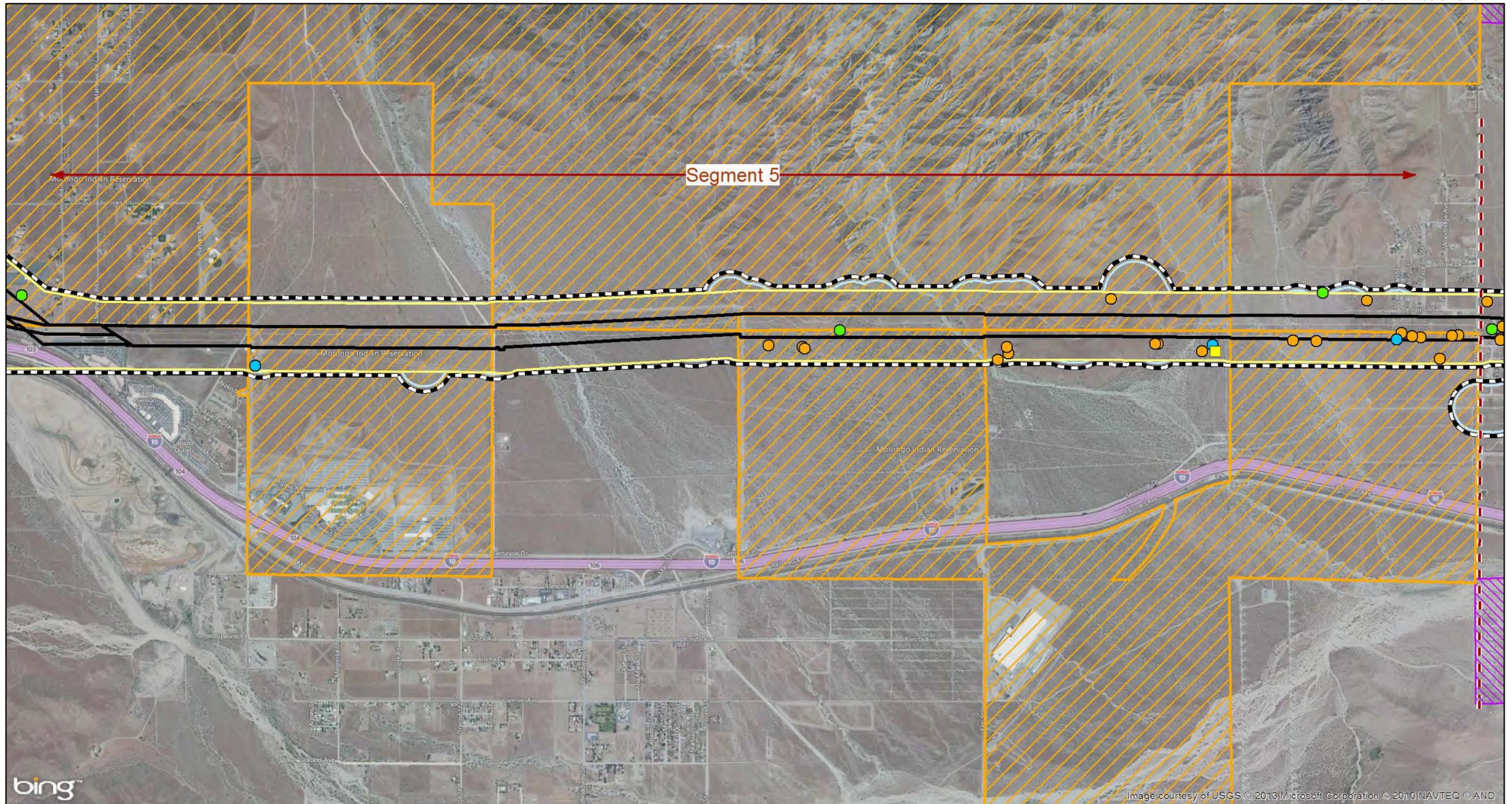


FIGURE 2  
 Sheet 8 of 11

Southern California Edison  
 West of Devers Upgrade Project  
 2012 and 2013 Burrowing Owl Survey Results

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LEGEND

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- Burrowing Owl
- Burrow with Owl Sign
- Burrow without Owl Sign

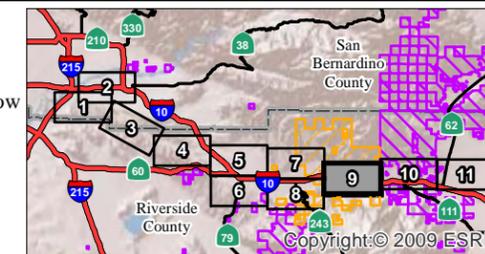


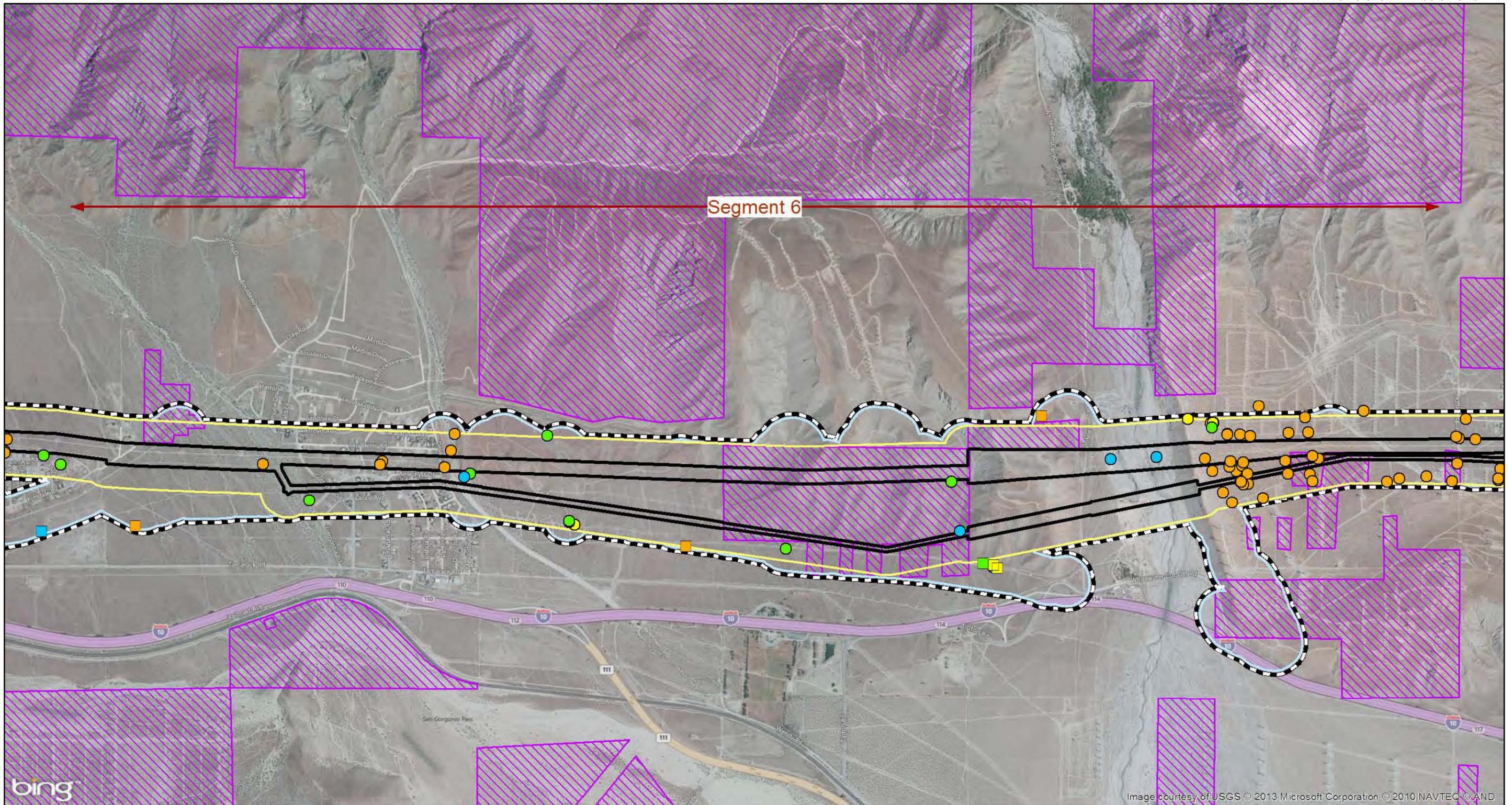
FIGURE 2  
Sheet 9 of 11

Southern California Edison  
West of Devers Upgrade Project  
2012 and 2013 Burrowing Owl Survey Results

SOURCE: SCE (9/2011, 11/2011)

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- Burrowing Owl
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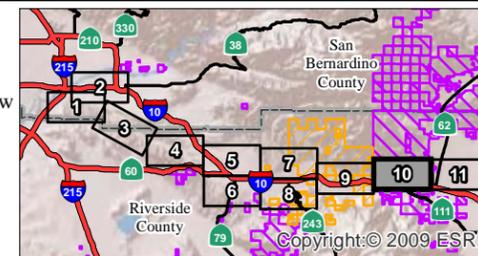


FIGURE 2  
Sheet 10 of 11

Southern California Edison  
West of Devers Upgrade Project  
2012 and 2013 Burrowing Owl Survey Results

SOURCE: SCE (9/2011, 11/2011)

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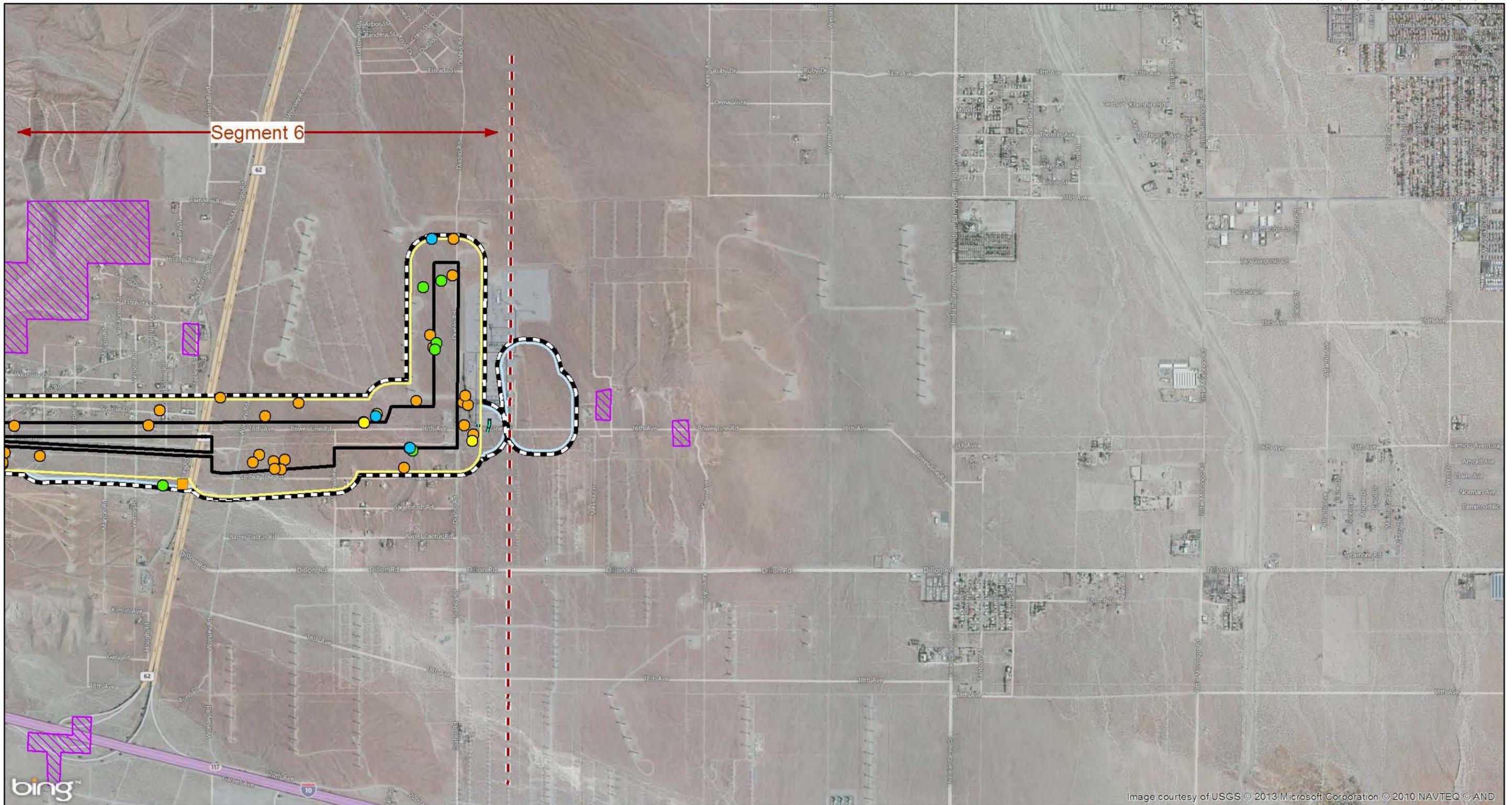


Image courtesy of USGS © 2013 Microsoft Corporation © 2010 NAVTEQ © AND



LEGEND

- West of Devers Study Area
- Transmission Right-of-Way
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- 500' from Disturbance Areas

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- Segment Breaks
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- 2012 Burrowing Owl Results
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  - Burrow with Owl Sign
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- 2013 Burrowing Owl Results
- Burrowing Owl with Burrow
  - Burrowing Owl
  - Burrow with Owl Sign
  - Burrow without Owl Sign

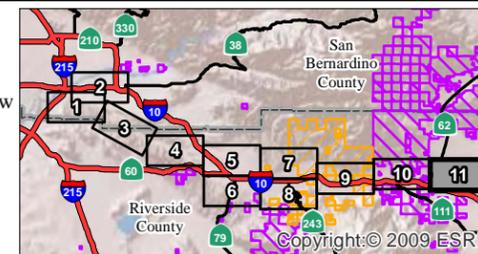


FIGURE 2  
Sheet 11 of 11

Southern California Edison  
West of Devers Upgrade Project  
2012 and 2013 Burrowing Owl Survey Results

SOURCE: SCE (9/2011, 11/2011)

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**A.** Burrowing owl near nest burrow in typical grassland habitat in the City of Beaumont (2012).



**B.** Burrowing owl refuge site used during migration in 2012 (03-2012).



**C.** Burrowing owl nest with sign (2012).



**D.** Burrowing owl pair at nest burrow near the Devers Substation (04-06-2012).



**E.** Nesting pair territory habitat near the Devers Substation (04-2012).



**F.** Occupied burrow habitat east of the Reservation and community of Cabazon (03-08-2013).

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**APPENDIX B**  
**SURVEYOR RESUME SUMMARY TABLE**

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## APPENDIX B

### SURVEYOR RESUME SUMMARY TABLE

Name	Highest Education	Relevant Project Example	Burrowing Owl (BUOW) Experience
<b>Agnieszka Napiatek</b>	M.S., Environmental Studies, California State University, Fullerton.	<b>Tehachapi (Antelope) 500 kV Transmission Line—Segments 1, 2, and 3</b> , Kern and Los Angeles Counties, California. Conducted preconstruction surveys for BUOW.	Conducted many hours of BUOW surveys for at least two previous large projects.
<b>Anthony Greco</b>	B.S., Biology, California State University, Fullerton.	<b>Wood-to-Steel, Environmental and Biological Services, SDG&amp;E</b> , San Diego County, California. Performed construction and compliance monitoring services related to SDG&E's wood electric transmission pole to weathering steel pole replacement activities.	Frequently detected BUOW during biological field surveys.
<b>Brooks Smith</b>	B.S., Earth Science, Concentration: Geology, University of California, Santa Cruz.	<b>Laguna Canyon Road (SR-133) Widening</b> , Orange County, California. Provided archaeological and paleontological monitoring as well as preparation of stratigraphic sections and identification of paleontological specimens.	Extensive transect experience.
<b>Christopher Kallstrand</b>	B.S., Forestry, Concentration: Natural Resource Conservation, Iowa State University.	<b>Devers–Palo Verde No. 2 Transmission Line, Southern California Edison</b> , Riverside County, California. Provided on-site biological monitoring for sensitive species, including the BUOW.	Has conducted BUOW surveys for at least one previous project.
<b>Christopher Waterston</b>	B.S., Biology, Concentration: Ecology, Marine Biology, and Conservation, California State University, Fullerton.	<b>Utility Upgrade Project</b> in Daggett, California. Conducted focused BUOW surveys.	Conducted BUOW surveys on at least one previous project; conducted BUOW nest monitoring.
<b>Claudia Bauer</b>	M.S., Environmental Studies, Concentration: Science, California State University, Fullerton.	<b>Perris Boulevard Widening Project</b> , City of Perris, Riverside County, California. Responsible for conducting a BUOW habitat assessment, which yielded potential burrows for occupation; however, Ms. Bauer determined the absence of BUOW in the study area.	Conducted BUOW surveys for at least one previous project.
<b>Dale Powell</b>	Ph.D., Entomology, University of California, Riverside.	<b>Tehachapi Renewable Transmission Project (TRTP), Southern California Edison</b> , Los Angeles and San Bernardino Counties, California 2009–2011. Conducted preconstruction, and clearance	Conducted several hundred hours of BUOW surveys on multiple projects; performed nest

Name	Highest Education	Relevant Project Example	Burrowing Owl (BUOW) Experience
		surveys, as well as during-construction monitoring for BUOWs. Approved as a BUOW biologist on the TRTP.	monitoring; attended a BUOW symposium put on by the Wildlife Society.
<b>Daniel Burnett</b>	Graduate Study, Business Administration, California State University, Long Beach.	<b>Tehachapi Renewable Transmission Project, Southern California Edison,</b> Antelope Valley, San Gabriel Valley, and Chino Hills Area of the Los Angeles Basin, California, January 2011–September 2011. Performed BUOW preconstruction surveys, construction monitoring, and nesting surveys.	Conducted over 60 hours of BUOW surveys; aided the installation of artificial burrows on Naval Station property.
<b>Daniel Rosie</b>	B.A., Environmental, Population, and Organismic Biology, University of Colorado at Boulder.	<b>Proposed West of Devers South of Interstate 10 Project, Southern California Edison,</b> Riverside County, California. Conducted preconstruction BUOW surveys.	Conducted BUOW surveys on multiple projects; conducted BUOW burrow eviction and excavation; conducted habitat suitability assessments for BUOW
<b>Danielle Mullen</b>	B.S., Biology, University of California, Santa Cruz.	<b>TRTP, Burrowing Owl Relocation Project,</b> Antelope Valley, California. Assisted in the excavation and collapsing of BUOW burrows in the Antelope Valley segment of the relocation project. No BUOW were detected during the excavations.	Aided in the detection and collapsing of non-occupied BUOW burrows.
<b>Dave Compton</b>	M.A., History, Concentration: United States, Marquette University.	<b>Antelope Valley Solar Ranch One,</b> First Solar (formerly NextLight), Antelope Valley, California, 2008–2011. Participated in Phase II BUOW surveys (burrow and owl search), led the Phase III surveys (monitoring of owls), and contributed extensively to the biota report, including analysis of impacts to birds.	Conducted many hours of BUOW surveys; led Phase II BUOW surveys; authored several sections of a BUOW technical report.
<b>Elizabeth Hohertz</b>	B.S., Applied Ecology, University of California, Irvine.	<b>SR-91 Corridor Improvement Project, Caltrans,</b> Orange and Riverside Counties, California. Conducted and prepared research and field studies for an NES for the SR-91 Corridor Improvement Project between SR-241 and I-15. Studies included burrowing owl surveys.	Conducted BUOW surveys for many previous projects.
<b>Emily Wier</b>	B.S., Biology ( <i>cum laude</i> ), Tufts University.	<b>Tehachapi Renewable Transmission Project, Southern California Edison,</b> Los Angeles and San Bernardino Counties, California. Established environmentally sensitive areas for active bird nests, and monitored construction-	Conducted BUOW surveys for at least one previous project; established nesting bird buffers for BUOW along with nest

Name	Highest Education	Relevant Project Example	Burrowing Owl (BUOW) Experience
		related activities relative to the BUOW.	monitoring; observed BUOW outside of direct focused surveys.
<b>Erin Martinelli</b>	M.S., Environmental Studies ( <i>summa cum laude</i> ), California State University, Fullerton.	<b>Interstate 710 Corridor Project</b> , Los Angeles County, California. Assisted with a three-phase protocol survey for the BUOW in order to identify avoidance and minimization measures and compensatory mitigation that would reduce overall adverse effects to the BUOW and other biological resources.	Conducted BUOW surveys for at least three previous projects; conducted a Phase III protocol BUOW survey in order to identify avoidance and minimization measures.
<b>Hillary Sweeney</b>	B.A., Anthropology, San Diego State University.	<b>Sewer Group 698 Chollas Creek Project</b> , Carlsbad, California. Responsible for organizing and identifying genus of shell, debitage, and lithics, as well as recording and cataloging the artifacts found from the Chollas Creek site.	Extensive transect experience.
<b>Jacqueline Hall</b>	B.A., Anthropology, San Diego State University.	<b>Sewer Group 698, CA-SDI-17203</b> , Chollas Creek, San Diego, California. Served as both field and lab technician for the data recovery of the Chollas Creek archaeological site. Helped excavate and water screen six units.	Extensive transect experience.
<b>Jaime Morales</b>	B.S., Environmental Systems, University of California, San Diego.	<b>Flatiron Construction Corporation, Santa Margarita River Bridge and Second Track Project</b> , Oceanside, California. Conducted weekly monitoring of the site to ensure compliance with agency-issued permits; nesting bird surveys during the bird breeding season.	Conducted BUOW surveys for at least two previous projects.
<b>Jared Bond</b>	B.S., Ecology and Evolutionary Biology, University of Arizona.	<b>Senior Ecological Resources Specialist</b> , Riverside County Environmental Programs Department, November 2005–present. Developed burrowing owl management plan for Riverside County Regional Conservation Authority.	Conducted many hours of BUOW surveys; developed a BUOW management plan for Riverside County; developed region wide monitoring and management strategies; collaborated with University of California, Riverside, on BUOW research.

Name	Highest Education	Relevant Project Example	Burrowing Owl (BUOW) Experience
<b>Jason Collins</b>	B.A., History, Concentration: Meso-America, San Diego State University.	<b>Sewer Group 698</b> , Chollas Creek San Diego, California. Worked on this project during the excavation and screening, and saw the finishing of the project in the field. Involved in the excavation phase of this project and assisted in the excavation of approximately two-thirds of the total site.	Extensive transect experience.
<b>Jason Miller</b>	M.A., Anthropology, Concentration: Archeology, California State University, Long Beach (in progress).	<b>Talega Village Excavation CA-ORA-907, Talega Associates, LLC</b> , Orange County, California, 2001. Assisted with part of the Phase 1 excavation with SWCA Environmental Consultants.	Extensive transect experience.
<b>Jeff Kidd</b>	B.S. and M.S., Humboldt State University (progress).	<b>Senior Author</b> "Status of Burrowing Owls in Southwestern California." Published in Bird Populations Monograph No.1 2007 by the Institute for Bird Populations and Albion Environmental, Inc. (pages 76–89).	Conducted many hours of BUOW surveys; holds a Federal Migratory Bird Permit and a California Scientific Collection Permit applicable to all raptors in California; conducted 18 years of BUOW mark-recapture research and is senior author to a paper resulting from said research.
<b>Jill Carpenter</b>	B.S., Biology: Specialization in Ecology, University of California, Irvine.	<b>Tehachapi Renewable Transmission Project, Southern California Edison</b> , Los Angeles and Kern Counties, California. Performed preconstruction floral and faunal surveys including focus BUOW surveys for a new 500 kV transmission line totaling approximately 80 linear miles.	Conducted BUOW surveys for at least one large previous project.
<b>Joel Boggus</b>	B.A., Environmental Studies, California State University, San Bernardino.	<b>Tehachapi Renewable Transmission Project, Southern California Edison</b> , Los Angeles and San Bernardino Counties, California, March 2011–present. Provided 200+ hours of BUOW survey experience with active burrows and birds identified.	Conducted over 200 hours of BUOW surveys, including active burrow and positive bird identifications.

Name	Highest Education	Relevant Project Example	Burrowing Owl (BUOW) Experience
<b>Kyle McCann</b>	M.S., Biology, University of California, San Diego.	<b>TRC Solutions</b> , March 2011. Responsible for the monitoring of construction crews to keep crews in compliance with extensive mitigation measures established. Conducted sweeps of work site and monitored throughout the day for the presence of sensitive flora and fauna.	Extensive transect experience.
<b>Logan Freeberg</b>	B.A., Anthropology, University of California, Santa Barbara.	<b>Planning Area 1, Southern California Edison Substation</b> Orange County, California. Served as field technician for the archaeological and paleontological monitoring of this project. Performed fossil collection, preparation, and curation.	Extensive transect experience.
<b>Lonnie Rodriguez</b>	B.S., Environmental Science, Humboldt State University.	<b>Morongo Band of Mission Indians, Upgrade of Water Line to Morongo Casino</b> , Riverside County, California. Conducted habitat assessment and focus surveys for federally listed species with a potential to occur in the project area. BUOW were detected during these surveys.	Frequently detects BUOW during biological field surveys, and recorded BUOW locations within the Morongo Reservation.
<b>Maria Lum</b>	M.S., Natural Resources and Watershed Management, University of Wyoming.	<b>Menifee, California</b> , April 2012–present. Conducted BUOW nest monitoring and is part of the Burrowing Owl Relocation and Mitigation Plan.	Conducted BUOW surveys for many previous projects; conducted BUOW nest monitoring; aided in the construction of artificial burrows; and is part of an ongoing BUOW relocation and Mitigation Plan in Menifee, California.
<b>Matthew Teutimez</b>	M.S., Biology, California State University, Long Beach.	<b>Tehachapi 500 kV Transmission Line (Segments 1–3), Southern California Edison</b> , Los Angeles and Kern Counties, California. Conducted preconstruction surveys for BUOW.	Conducted BUOW surveys on at least one previous project.
<b>Matthew Willis</b>	B.S., Ecology and Systematic Biology, California Polytechnic State University, San Luis Obispo.	<b>Tehachapi Renewable Transmission Project, Southern California Edison</b> . Conducted preconstruction focus surveys for the BUOW.	Conducted BUOW surveys for at least one previous project. Frequently detects BUOW during biological field surveys.

Name	Highest Education	Relevant Project Example	Burrowing Owl (BUOW) Experience
<b>Milo Rivera</b>	B.S., Biology, California State University, San Bernardino.	<b>Solar Millennium Solar Plant, AECOM</b> , Blythe, California. Conducted preconstruction BUOW surveys on 4,000-acre solar field and out 1,000 feet from project boundaries. Used a downhole scope and wildlife cameras to determine presence and activity level of BUOW for project.	Conducted many hours of BUOW surveys on multiple projects, including using a down hole scope and wildlife camera to determine presence and activity of BUOW.
<b>Nina Jimerson-Kidd</b>	B.S., Natural Resources Planning & Interpretation/ Ecology, Humboldt State University.	<b>Burrowing Owl Relocation.</b> Coordinated with CDFG (now the CDFW) and USFWS to actively translocate one pair of BUOW from a project site in the City of Fontana to a conservation site on U.S. Naval Station, Seal Beach. Assisted in the trapping and release efforts as well as monitoring of the site during grading.	Conducted many BUOW surveys; aided in the active translocation of one BUOW pair; attended a BUOW symposium in October, 2003.
<b>Riordan Goodwin</b>	Graduate Program – completed all but thesis, Anthropology, San Diego State University, California.	<b>Mid-County Parkway</b> in Riverside County, California. Conducted large scale archeological surveys.	Extensive transect experience.
<b>Sandy Duarte</b>	B.A., Cultural Anthropology, University of California, Santa Barbara.	<b>Vail Lake Transmission Main and Pump Station</b> , Rancho Water District, Temecula, California. Was an archaeological/paleontological monitor for the development of a water transmission pipeline. Identified and collected ground stone and worked with a Native American monitor (Pechanga Tribe).	Extensive transect experience.
<b>Sarah Barrera</b>	M.S., Conservation Biology, California State University, Long Beach.	<b>Tehachapi 500 kV Transmission Line (Segments 1–3), Southern California Edison</b> , Los Angeles and Kern Counties, California. Assisted in preconstruction surveys, including those for BUOW, and assisted with construction monitoring for the installation of the new transmission line as well as the removal of the existing line and towers.	Conducted BUOW surveys for at least one previous project.
<b>Scott Thomas</b>	B.S., Biology, California State University (in progress).	<b>Field Manager</b> , Imperial Valley, California. Conducted a 3-year survey of BUOW densities entailing the coordination of 15–20 field biologists and performance of protocol surveys that included the capture, banding, and passive relocation of approximately 15 BUOW pairs.	Conducted many BUOW surveys; second author to the Burrowing Owl Management and Conservation Plan, Naval Weapons Station Seal Beach; monitored wintering BUOW; served as field manager

Name	Highest Education	Relevant Project Example	Burrowing Owl (BUOW) Experience
			for a 3-year survey of BUOW densities; holds a Federal BUOW Translocation Permit.
<b>Susan “Gin” Ingram</b>	B.S., Zoology, University of California, Santa Barbara.	<b>California State University, Dominguez Hills</b> , March 2002. Conducted BUOW preconstruction survey.	Has conducted BUOW surveys for at least one previous project. Frequently detects BUOW during biological field surveys.
<b>Thomas Dixon</b>	B.S., Biological Sciences ( <i>cum laude</i> ), University of California, Irvine.	<b>Riparian Bird Field Assistant, USGS</b> , March 2011–April 2011. Conducted surveys for the Least Bell's Vireo, Southwestern Willow Flycatcher, and the Coastal Cactus Wren. Recorded vocalizations to determine presence, reproductive status, and resight color-banded individuals.	Extensive transect experience.
<b>Wendy Pearson</b>	M.S., Natural Resources, Concentration: Wildlife, Humboldt State University.	<b>Willapa National Wildlife Refuge</b> , Ilwaco, Washington, June–September 2011. Conducted breeding bird surveys for Western Snowy Plovers and Streaked Horned Larks. Identified individuals based on unique color bands. Monitored nests and chicks. Collected predator data for common predators of both species, primarily raptors and corvids.	Extensive transect experience.

CDFG = California Department of Fish and Game  
CDFW = California Department of Fish and Wildlife  
kV = kilovolt  
I-15 = Interstate 15  
NES = Natural Environment Study  
SDG&E = San Diego Gas & Electric

SR-91 = State Route 91  
SR-133 = State Route 133  
SR-241 = State Route 241  
USFWS = United States Fish and Wildlife Service  
USGS = United States Geological Survey

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## APPENDIX C

### CALIFORNIA NATIVE SPECIES FIELD SURVEY FORM

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Mail to:  
 California Natural Diversity Database  
 Department of Fish and Game  
 1807 13<sup>th</sup> Street, Suite 202  
 Sacramento, CA 95811  
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only	
Source Code _____	Quad Code _____
Elm Code _____	Occ. No. _____
EO Index No. _____	Map Index No. _____

Date of Field Work (mm/dd/yyyy): 03/07/2012

## California Native Species Field Survey Form

Scientific Name: *Athene cunicularia hypugaea*

Common Name: Burrowing Owl

Species Found?  Yes  No \_\_\_\_\_ If not, why? \_\_\_\_\_

Total No. Individuals 38 Subsequent Visit?  yes  no

Is this an existing NDDDB occurrence?  no  unk. Yes, Occ. # \_\_\_\_\_

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

Reporter: Ingri Quon, LSA-Associates

Address: 20 Executive Park, #200 Irvine, CA 92614

E-mail Address: ingri.quon@lsa-assoc.com

Phone: (949) 553-0666

**Plant Information**

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

**Animal Information**

38  
 # adults # juveniles # larvae # egg masses # unknown

wintering  breeding  nesting  rookery  burrow site  other

**Location Description (please attach map AND/OR fill out your choice of coordinates, below)**

The Project is located between the Devers Substation in an unincorporated area of Riverside County near Desert Hot Springs, California in the east with the Vista Substation in Grand Terrace in the west, and the San Bernardino Substation in the City of San Bernardino in the north.

County: Riverside Landowner / Mgr.: \_\_\_\_\_

Quad Name: Beaumont, Cabazon, White Water, Desert Hot Springs Elevation: 1225ft - 2717ft

T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian:  H  M  S Source of Coordinates (GPS, topo. map & type): GPS

T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian:  H  M  S GPS Make & Model hand held units

**DATUM:**  NAD27  NAD83  WGS84 Horizontal Accuracy 20 ft meters/feet

**Coordinate System:** UTM Zone 10  UTM Zone 11  OR Geographic (Latitude & Longitude)

**Coordinates:** Burrow locations: 538613, 3756053; 538481, 3754689; 534137, 3754543; 536870, 3754436; 533951, 3754926; 533285, 3754683 (two burrows found at this site); 529747, 3754250 UTM's continued below

**Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:**

**Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):**

Suitable habitat for the BUOW occurs throughout the study area, but the reported individuals were found in grassland (pastures), creosote bush scrub, disturbed or developed areas, desert wash, and an active rock quarry.

19 breeding pairs of BUOW were observed at active burrows.

Please fill out separate form for other rare taxa seen at this site.

**Site Information** Overall site/occurrence quality/viability (site + population):  Excellent  Good  Fair  Poor

Immediate AND surrounding land use: residential, urban, open land, rock quarry.

Visible disturbances: off-road vehicles, trash

Threats: BUOW predators (such as RTHA, COHA, and mammalian carnivores); development

Comments: UTM's continued: 529059, 3754540; 525376, 3754671; 524849, 3754657; 517897, 3754446; 516374, 516374; 515883, 3755042; 506740, 3756199; 506398, 3756045; 504766, 3756195; 505088, 3756135; 504032, 3756413

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

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

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

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

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

Other: LSA Biologists, Jeff Kidd of Kidd Biological Inc.

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

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

May we obtain duplicates at our expense? yes  no

APPENDIX F: BIOLOGICAL RESOURCES

Mail to:  
 California Natural Diversity Database  
 Department of Fish and Game  
 1807 13<sup>th</sup> Street, Suite 202  
 Sacramento, CA 95811  
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only	
Source Code _____	Quad Code _____
Elm Code _____	Occ. No. _____
EO Index No. _____	Map Index No. _____

Date of Field Work (mm/dd/yyyy): 04/08/2013

**Reset**

**California Native Species Field Survey Form**

**Send Form**

Scientific Name: Athene cunicularia

Common Name: Burrowing Owl

Species Found?  Yes  No \_\_\_\_\_ If not, why? \_\_\_\_\_

Total No. Individuals 2 Subsequent Visit?  yes  no

Is this an existing NDDDB occurrence?  no  unk. Yes, Occ. # \_\_\_\_\_

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

Reporter: Ingri Quon, LSA Associates, Inc.

Address: 20 Executive Park, #200 Irvine, CA 92614

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**Plant Information**

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

**Animal Information**

2  
 # adults # juveniles # larvae # egg masses # unknown

wintering  breeding  nesting  rookery  burrow site  other

**Location Description (please attach map AND/OR fill out your choice of coordinates, below)**

The Project is located between the Devers Substation in an unincorporated area of Riverside County near Desert Hot Springs, California in the east with the Vista Substation in Grand Terrace in the west, and the San Bernardino Substation in the City of San Bernardino in the north.

County: Riverside Landowner / Mgr.: private, public, and tribal lands

Quad Name: White Water Elevation: 1400 ft

T 3S R 3E Sec 7, SW 1/4 of NW 1/4, Meridian:  H  M  S Source of Coordinates (GPS, topo. map & type): GPS

T 3S R 3E Sec 11, SW 1/4 of NW 1/4, Meridian:  H  M  S GPS Make & Model hand held units

**DATUM:** NAD27  NAD83  WGS84  Horizontal Accuracy 6m/20 ft meters/feet

**Coordinate System:** UTM Zone 10  UTM Zone 11  OR Geographic (Latitude & Longitude)

**Coordinates:** Quad White Water: UTM 526297, 3754164; UTM 532454 3753999

**Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:**

**Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):**

Suitable habitat for the BUOW occurs throughout most of the study area, but the reported individuals were found in desert scrub.

One individual was observed in a burrow east of the Morongo Indian Reservation and community of Cabazon northeast of Rushmore Avenue and Tamarack Road. A second owl was observed near burrows with sign about 0.7 mile west of Whitewater River.

Please fill out separate form for other rare taxa seen at this site.

**Site Information** Overall site/occurrence quality/viability (site + population):  Excellent  Good  Fair  Poor

Immediate AND surrounding land use: Residential, urban, open land.

Visible disturbances: Off-road vehicles, trash

Threats: BUOW predators (such as RTHA, COHA, and mammalian carnivores); development

Comments: Surveys conducted for SCE transmission line project.

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

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

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

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

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

Other: LSA Biologists: Dan Rosie, Jaime Morales

**Photographs:** (check one or more) Slide Print Digital

Plant / animal

Habitat

Diagnostic feature

May we obtain duplicates at our expense? yes  no