

Appendix D-20

Focused Burrowing Owl Phase I, II, and III Surveys

**FOCUSED BURROWING OWL
PHASE I, II, AND III SURVEYS**

FOR THE

ALTA EAST WIND ENERGY PROJECT

KERN COUNTY, CALIFORNIA

November 2011

Prepared for:
CH2M Hill Engineers, Inc.
155 Grand Avenue
Oakland, CA 94612

Report Preparer:
Jacqueline Finck, Wildlife Biologist
Garcia and Associates
435 Lincoln Way
Auburn, California 95603

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Executive Summary

Alta Windpower Development, LLC proposes to construct and operate the Alta East Wind Energy Project (Project) in Kern County, California, a nominal 360 megawatt wind energy facility. The Project is located at the eastern base of the Tehachapi Mountains, 2 miles west of the intersection of Highway 58 and Highway 14 in the northwest portion of the Mojave Desert and is within the Tehachapi Wind Resource Area of eastern Kern County (Appendix A, Figure 1). The Project comprises approximately 3,200 acres, 2,083 acres of which are on federal land under the jurisdiction of the Bureau of Land Management (BLM) and 1,117 acres of which are on private land under the jurisdiction of Kern County.

The burrowing owl (*Athene cunicularia*) is a California Species of Special Concern, as well as a migratory bird species protected by the Migratory Bird Treaty Act (MBTA) of 1918. Protocol-level Phase I and II surveys were conducted concurrently by Garcia and Associates (GANDA), a subcontractor to CH2M HILL, between April 20 and May 2, and July 19–25, 2011 to determine presence or absence of individual owls or potential owl burrows in the Project survey area. Phase III surveys were conducted between June 15–18, and July 25–28, 2011 to determine owl presence in the Project survey area. Surveys were conducted in accordance with the burrowing owl protocol *California Burrowing Owl Consortium (CBOC) Survey Protocol & Mitigation Guidelines* (CBOC 1993). Previous surveys for burrowing owl were completed for the Alta East Wind Energy Project (Phoenix Ecological 2010a, 2010b). The 2011 surveys augment previously completed surveys within the Project area. Approximately 1,321 acres were surveyed for burrowing owl during this survey effort.

No burrowing owls were observed in the Project survey area during the surveys. Eight suspected burrowing owl burrows were observed in the Project survey area during the Phase I and II surveys; however, during the Phase III surveys, it was determined that no owls were using these burrows and they were therefore inactive.

1 Project and Property Description

1.1 Project Description

Alta Windpower Development, LLC proposes to construct and operate the Alta East Wind Energy Project (Project) in Kern County, California (Appendix A, Figure 1), a nominal 360 megawatt wind energy facility. Major components of the proposed Project include up to 120 wind turbine generators, a substation, a transmission interconnection, access roads, and ancillary services. The proposed Project site is described below.

1.2 Property Description

The Project is located at the eastern base of the Tehachapi Mountains, 2 miles west of the intersection of Highway 58 and Highway 14 (Appendix A, Figure 1) in the northwest portion of the Mojave Desert and is within the Tehachapi Wind Resource Area of eastern Kern County. The Project comprises approximately 3,200 acres, 2,083 acres of which are federal land and 1,117 acres of which are private land.

The Project site contains potentially suitable habitat for burrowing owl. Those areas of potentially suitable habitat that had not been previously surveyed in 2010 (Phoenix Ecological Consulting 2010a, 2010b), comprising 1,321 acres, are herein referred to as the Project survey area in this report (Appendix A, Figure 1). The eight suspected burrowing owl burrows observed in the Project survey area during Phase I and II surveys are herein referred to as the Phase III survey area (Appendix A, Figure 2). The Project survey area is covered with natural vegetation and, per the classification scheme developed by Holland (1986), is comprised primarily of Mojave creosote bush scrub communities. Elevations within the Project survey area range from approximately 3,000 to 3,900 feet. Representative photographs of the Project site are included in Appendix B.

2 Methods

2.1 Background Review

A background review was conducted to determine historical presence of burrowing owls on the Project survey area. The California Natural Diversity Data Base (CNDDDB) was queried for any records of this species within a 5-mile radius of the Project. The search area for this background research included the two U.S. Geological Survey 7.5-minute quadrangles that include the Project survey area (Mojave and Monolith) and 10 adjacent quadrangles (Tehachapi North, Tehachapi NE, Tehachapi South, Cache Peak, Mojave NE, Sanborn, Tylerhorse Canyon, Willow Springs, Bissell, and Soledad Mountain).

The CNDDDB query revealed five burrowing owl occurrences within 5 miles of the Project survey area (CDFG 2011; Appendix A, Figure 3). The nearest two burrowing owl records, from May 1921 and June 2005, occur within the southern portion of the Project survey area.

2.2 Field Survey

Phase I and II surveys for burrowing owl were conducted concurrently between April 20 and May 2, and July 19–25, 2011, and Phase III surveys for burrowing owl were conducted between June 15–18, and July 25–28, 2011 in accordance with the survey protocol (CBOC 1993). All surveys were conducted in accordance with the California Burrowing Owl Consortium (CBOC) *Survey Protocol & Mitigation Guidelines* (CBOC 1993). The purpose of a Phase I survey is to conduct an assessment of habitat suitability for burrowing owls. The purpose of a Phase II survey is to conduct a search for individual burrowing owls, as well as appropriately-sized burrows a burrowing owl could potentially use, if it has been determined during Phase I surveys that suitable burrowing owl habitat is present. The purpose of a Phase III survey is to determine owl presence on the site, and if possible, describe how owls are utilizing the site.

2.2.1 Phase I and II Surveys

The Project survey area included representative portions of the proposed wind energy facility, as well as the entirety of the proposed transmission line that would interconnect to the wind energy facility (Appendix A, Figure 3). Survey methods consisted of walking the entire Project survey area. Surveyors searched for individual owls, as well as burrows that had the potential for burrowing owl use, based on size. Presence of burrowing owl sign (whitewash, pellets, and feathers) was also noted at potential burrowing owl burrows. All potential burrowing owl burrows were inspected by using a mirror to reflect sunlight into the far end, if visible, to determine additional burrowing owl sign. It was noted when the end of a potential burrowing owl burrow was not visible. No burrows were collapsed or altered by surveyors during field surveys.

The entire Project survey area (Appendix A, Figure 1) was surveyed by spacing the transect centerlines a maximum of 100 feet apart during the species' breeding season (February 1 to August 31) (CBOC 1993). A Trimble® GEOXT GPS unit was used to maintain proper

orientation and spacing. The lead surveyor navigated by using the navigation feature on the map screen of the Trimble unit. This feature plotted the survey transect lines as the surveyors walked and allowed the lead surveyor to determine which areas had already been surveyed and to maintain the appropriate spacing between transect centerlines. Using this method, the survey area was systematically walked until 100 percent of the survey area was visually inspected.

All observations of owls, occupied burrows, and potential burrowing owl burrows were recorded on a Trimble® GEOXT GPS unit.

The field supervisor was GANDA biologists Molly Graber and Saana Deichsel. The other field surveyors were Margaret Adam, Jacqueline Finck, Steve Paris, Laura Megill, Ryan Hilgris, Debbie Beckett, Kim Steiner, Keir Morse, Sara McBee, and Angela Gallardo. All surveyors were trained in the implementation of the burrowing owl survey protocol and had previous experience surveying for burrowing owl. Field survey datasheets were completed each day and are included in Appendix C of this report.

2.2.2 Phase III Surveys

The Phase III survey area included the eight suspected burrowing owl burrows identified during Phase I and II surveys. Survey methods consisted of examining suspected burrowing owl burrows for owl sign (whitewash, pellets, and feathers), and observing burrows for owl presence from a fixed point to provide visual coverage and minimize disturbance. Site visits were repeated on four separate days. Surveys were conducted either two hours before sunset to one hour after sunset or from one hour before sunrise to two hours after sunrise.

All observations of owls, occupied burrows, and burrows with owl sign were noted on a handheld Trimble® Juno unit.

The field lead surveyor was GANDA biologists Jacqueline Finck and Saana Deichsel. The other field surveyors were Stefanie Krantz and Sara McBee. All surveyors were trained in the implementation of the burrowing owl survey protocol and had previous experience surveying for burrowing owl.

3 Results

This section describes the results of the protocol-level Phase I, II, and III surveys and incidental sensitive species observed during the surveys. All other wildlife observed during the field surveys are noted in Appendix D.

3.1 Phase I and II Surveys

3.1.1 Phase I Habitat Assessment

Suitable burrowing owl habitat was noted throughout the entire 1,321-acre Project survey area (Appendix A, Figure 1). Suitable burrowing owl habitat in the Project survey area consisted of desert habitat, low-growing vegetation with shrub canopy cover less than 30 percent of ground surface, and presence of fossorial mammal burrows and/or availability of man-made structures such as debris piles and culverts (CBOC 1993).

The Project survey area is covered with natural vegetation, mainly Mojave creosote bush scrub and Joshua tree woodland communities (Holland 1986). Topographical features included desert flats and alluvial fans. Elevations within the Project survey area range from approximately 3,000 to 3,900 feet.

3.1.2 Phase II Burrow Survey

No burrowing owls were observed in the Project survey area during the Phase II surveys. However, one suspected burrowing owl burrow with sign (whitewash) was observed in the Project survey area (Table 1; Appendix A, Figure 2 [BUOW1]). Seven additional suspected burrowing owl burrows without owl sign were also observed in the Project survey area (Table 1; Appendix A, Figure 2). Results are also documented on copies of the field data sheets provided in Appendix C.

Table 1. Alta East Burrowing Owl Phase I and II Survey Results. April, May, and July 2011.

Find	Figure 2 ID Appendix A	Date	Dimensions W-H-D (inches)	End Visible? (Y/N)	Burrow Orientation	Photo # Appendix B	Notes
Suspected Burrowing Owl Burrow with Owl Sign	BUOW1	4/20/11	-	No	E	Photo 2	whitewash
Suspected Burrowing Owl Burrow with No Owl Sign	BUOW2	5/2/11	6-4->12	No	W	Photo 3	-
Suspected Burrowing Owl Burrow with No Owl Sign	BUOW3	5/2/11	7-5->12	No	E	Photo 4	-
Suspected Burrowing Owl Burrow with No Owl Sign	BUOW4	5/2/11	7-6->12	No	E	Photo 5	-
Suspected Burrowing Owl Burrow with No Owl Sign	BUOW5	7/21/11	8-6-?	No	SE	Photo 6	-
Suspected Burrowing Owl Burrow with No Owl Sign	BUOW6	7/21/11	6-8-?	No	NE	Photo 7	-

Find	Figure 2 ID Appendix A	Date	Dimensions W-H-D (inches)	End Visible? (Y/N)	Burrow Orientation	Photo # Appendix B	Notes
Suspected Burrowing Owl Burrow with No Owl Sign	BUOW8	7/21/11	ME (3)	No	-	Photo 8	-
Suspected Burrowing Owl Burrow with No Owl Sign	BUOW7	7/22/11	10-12-?	No	E	-	-

3.1.2 Phase I and II Survey Data

Surveys were conducted during the day in weather that was conducive to observing owls outside their burrows and on days with good visibility and clear skies, little to moderate wind speeds, and no precipitation. Survey dates, time, weather data, and personnel used are provided in Table 2.

Table 2. Phase I and II Burrowing Owl Survey Dates, Time, Weather, and Personnel.

Date	Time	Weather	Biologist(s)
April 20, 2011	1030–1600	Temperature: 59–64°F Wind: 15–36 mph Cloud Cover: 5–25% Fog: none Precipitation: none	M.Graber L.Megill M.Adam
April 21, 2011	0700–1530	Temperature: 52–59°F Wind: 17–36 mph with 45 mph gust Cloud Cover: 5–18% Fog: none Precipitation: none	M.Graber L.Megill M.Adam S.Diechsel R.Hilgris
April 22, 2011	0900–1345	Temperature: 58°F Wind: 10 mph Cloud Cover: 0% Fog: none Precipitation: none	M.Graber S.Diechsel R.Hilgris D.Beckett S.Paris
April 26, 2011	0900–xxxx	Temperature: 60°F Wind: 10 mph Cloud Cover: 0–5% Fog: none Precipitation: none	M.Graber S.Scott R.Hilgris D.Beckett S.Paris
April 27, 2011	0815–1630	Temperature: 60–75°F Wind: 0–5 mph Cloud Cover: 0% Fog: none Precipitation: none	M.Graber S.Scott R.Hilgris S.Paris
April 28, 2011	0900–1730	Temperature: 55–65°F Wind: 30–45 mph Cloud Cover: 0–5% Fog: none Precipitation: none	M.Graber S.Scott R.Hilgris D.Beckett S.Paris
April 29, 2011	0900–1630	Temperature: 50–65°F Wind: 35–40 mph Cloud Cover: 0–5% Fog: none Precipitation: none	M.Graber S.Scott D.Beckett S.Paris
April 30, 2011	0830–1630	Temperature: 55–65°F Wind: 5 mph Cloud Cover: 0% Fog: none Precipitation: none	M.Graber S.Scott D.Beckett S.Paris

Date	Time	Weather	Biologist(s)
May 2, 2011	0900–1330	Temperature: 60–80°F Wind: 0–5 mph Cloud Cover: 0–3% Fog: none Precipitation: none	J.Finck L.Megill D.Beckett R.Hilgris S.Scott A.Gallardo
July 19, 2011	0730–1600	Temperature: 90–95°F Wind: 5 mph Cloud Cover: 5% Fog: none Precipitation: none	J.Finck S.Deichsel M.Adams K.Steiner K.Morse
July 20, 2011	0740–1415	Temperature: 70°F Wind: 5 mph Cloud Cover: 0% Fog: none Precipitation: none	M.Adams K.Steiner K.Morse
July 21, 2011	0715–1515	Temperature: 90–95°F Wind: 10 mph Cloud Cover: 5% Fog: none Precipitation: none	S.Deichsel K.Morse
July 22, 2011	0700–1530	Temperature: 95–100°F Wind: 5 mph Cloud Cover: 0% Fog: none Precipitation: none	S.Deichsel K.Steiner
July 25, 2011	1400–1730	Temperature: 70–80°F Wind: 5–15 mph Cloud Cover: 0% Fog: none Precipitation: none	S.Deichsel S.McBee

3.2 Phase III Surveys

No burrowing owls were observed at the eight suspected burrowing owl burrows during the Phase III surveys.

Summary data of all suspected burrowing owl burrows are provided in Table 3.

Table 3. Alta East Burrowing Owl Phase III Survey Results. June and July 2011.

Find	Figure 2 ID Appendix A	June 15	June 16	June 17	June 18	Photo # Appendix B	Notes
Suspected Burrowing Owl Burrow	BUOW1	No owl. No sign.	No owl. No sign.	No owl. No sign.	No owl. No sign.	Photo 2	Whitewash during Phase II surveys (April 20–May 2)
Suspected Burrowing Owl Burrow	BUOW2	No owl. No sign.	No owl. No sign.	No owl. No sign.	No owl. No sign.	Photo 3	No sign during Phase II surveys (April 20–May 2)
Suspected Burrowing Owl Burrow	BUOW3	No owl. No sign.	No owl. No sign.	No owl. No sign.	No owl. No sign.	Photo 4	No sign during Phase II surveys (April 20–May 2)
Suspected Burrowing Owl Burrow	BUOW4	No owl. No sign.	No owl. No sign.	No owl. No sign.	No owl. No sign.	Photo 5	No sign during Phase II surveys (April 20–May 2)
Suspected Burrowing Owl Burrow	BUOW5	No owl. No sign.	No owl. No sign.	No owl. No sign.	No owl. No sign.	Photo 6	No sign during Phase II surveys (July 19–25)
Suspected Burrowing Owl Burrow	BUOW6	No owl. No sign.	No owl. No sign.	No owl. No sign.	No owl. No sign.	Photo 7	No sign during Phase II surveys (July 19–25)

Find	Figure 2 ID Appendix A	June 15	June 16	June 17	June 18	Photo # Appendix B	Notes
Suspected Burrowing Owl Burrow	BUOW7	No owl. No sign.	No owl. No sign.	No owl. No sign.	No owl. No sign.	-	No sign during Phase II surveys (July 19–25)
Suspected Burrowing Owl Burrow	BUOW8	No owl. No sign.	No owl. No sign.	No owl. No sign.	No owl. No sign.	Photo 8	No sign during Phase II surveys (July 19–25)

3.2.1 Phase III Survey Data

Surveys were conducted in weather that was conducive to observing owls outside of their burrows (i.e., on days with good visibility and clear skies, little to moderate wind speeds, and no precipitation or fog). Summary data of burrowing owl survey dates, time, weather data, and personnel used are provided in Table 4.

Table 4. Phase III Burrowing Owl Survey Dates, Time, Weather, and Personnel.

Date	Time	Weather	Biologist(s)
June 15, 2011	1800–2000	Temperature: 65–70 F Wind: 10–20 mph Cloud Cover: 0% Fog: none Precipitation: none	J.Finck S.Krantz
June 16, 2011	0545–0729	Temperature: 60–65 F Wind: 0–5 mph Cloud Cover: 0% Fog: none Precipitation: none	J.Finck S.Krantz
June 17, 2011	0548–0748	Temperature: 58–62 F Wind: 0–15 mph Cloud Cover: 0% Fog: none Precipitation: none	J.Finck S.Krantz
June 18, 2011	0600–0715	Temperature: 60–65 F Wind: 0–15 mph Cloud Cover: 0% Fog: none Precipitation: none	J.Finck S.Krantz
July 25, 2011	1730–2030	Temperature: 70–80 F Wind: 5–15 mph Cloud Cover: 0% Fog: none Precipitation: none	S.Deichsel S.McBee
July 26, 2011	1745–2000	Temperature: 80–85 F Wind: 15–20 mph Cloud Cover: 0% Fog: none Precipitation: none	S.Deichsel S.McBee
July 27, 2011	1800–1900	Temperature: 80–85 F Wind: 15–20 mph Cloud Cover: 0% Fog: none Precipitation: none	S.Deichsel S.McBee
July 28, 2011	0530–0700	Temperature: 70–75 F Wind: 5 mph Cloud Cover: 0% Fog: none Precipitation: none	S.Deichsel S.McBee

3.3 Incidental Species Observations

A summary table of all incidental species observations is provided below in Table 5. Results are also documented in Appendix A, Figure 4, as well as on copies of the field data sheets provided in Appendix C.

Three live desert tortoises (*Gopherus agassizii*) were observed in the Project survey area (Table 5; Appendix A, Figure 4 [DETO1, DETO2, and DETO3]; Appendix B, photos 9–11). The desert tortoise is listed as a threatened species under the federal Endangered Species Act and the California Endangered Species Act. Each live desert tortoise was observed inside of a burrow (Class 1= currently active, with desert tortoise or recent sign) (DTC 1994). In addition, one Class 4 (good condition, possibly tortoise) desert tortoise burrow (DTB1) was also observed. No desert tortoise or desert tortoise sign (i.e., scat, tracks) was associated with the Class 4 desert tortoise burrow, and it is therefore considered inactive.

One desert kit fox (*Vulpes macrotis arsipus*) burrow with recent scat was observed in the Project survey area (Appendix A, Figure 2; Appendix B, Photo 12). The desert kit fox does not have any legal status under the federal Endangered Species Act or the California Endangered Species Act, however, the species is native to the Mojave Desert and plays a key role in their respective ecosystems as “architects of subterranean burrows” (Thacker and Flinders 1999).

Table 5. Alta East Incidental Species Results. April, May, and July 2011.

Find	Figure 3 ID Appendix A	Date	Sex	MCL (mm)	Class ¹	Dimensions W-H-D (inches)	End Visible? (Y/N)	Burrow Orientation	Photo # Appendix B	Notes
Live DETO	DETO1	7/25/11	U	U	1	13-17-?	No	S	Photo 9	Looks adult. Inside burrow.
Live DETO	DETO2	7/25/11	U	U	1	8-5-25	No	SE	Photo 10	Looks juvenile. Inside burrow.
Live DETO	DETO3	7/25/11	U	U	1	13-5-?	N	SE	Photo 11	Looks juvenile. Inside burrow.
DETO Burrow	DTB1	4/22/11	-	-	4	9-5->18	No	E	-	Good dome shape, a little too steep (>30° slope)
KFOX Burrow	KFB1	5/2/11	-	-	-	8-6->24	No	SW	Photo 12	Scat

Class¹ DETO BURROW (DTC 1994)- CLASS 1= currently active, with desert tortoise or recent sign
 CLASS 4= good condition, possibly desert tortoise

4 References

California Burrowing Owl Consortium (CBOC)

1993 Survey Protocol & Mitigation Guidelines. April.

California Department of Fish and Game (CDFG)

2011 Rarefind, a California Natural Diversity Database (CNDDDB). A database of special status biological resources maintained by the Natural Heritage Division. Sacramento, California. Version 3.1.1. Accessed May 2011.

Holland, R. F.

1986 Preliminary descriptions of the terrestrial natural communities of California. California Department of Fish and Game. Unpublished report.

Phoenix Ecological Consulting

2010a Desert Tortoise (*Gopherus agassizii*) & Burrowing Owl (*Athene cunicularia*) Protocol Presence/Absence Surveys for Sun Creek Wind Resource Area, Kern County, California. Prepared for CH2M HILL. July 14.

2010b Burrowing Owl (*Athene cunicularia*) Protocol Presence/Absence Survey for Sun Creek Wind Resource Area, Kern County, California. Prepared for CH2M HILL. July 19.

Thacker, R. K. and J. T. Flinders

1999 Kit or swift fox: *Vulpes velox*. Pages 148–150 in Wilson, D. E. and S. Ruff, editors. The Smithsonian book of North American mammals. Smithsonian Institute Press, Washington and London. 750pp.

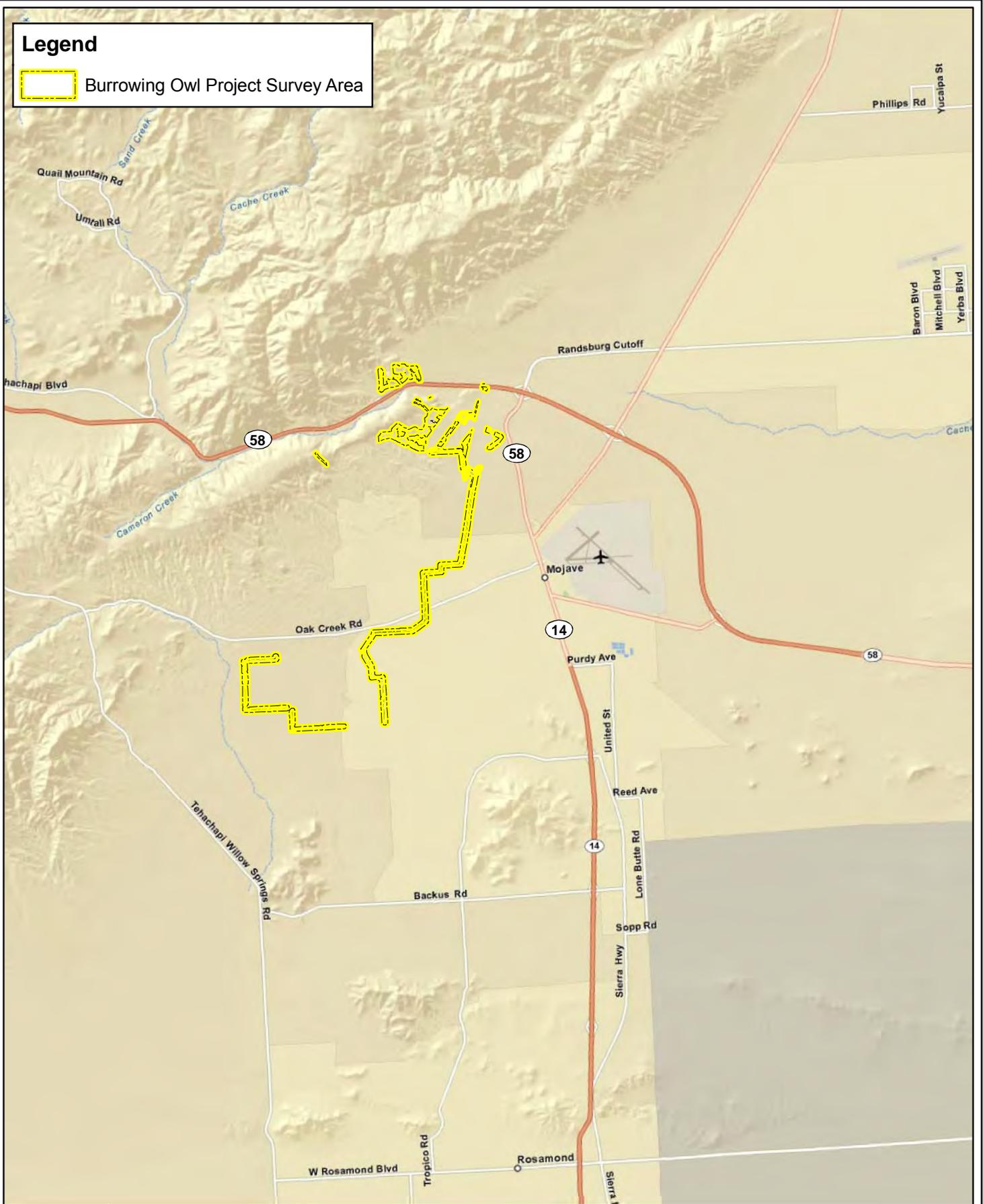
APPENDIX A

Alta East Wind Energy Project

Figures

Legend

 Burrowing Owl Project Survey Area



Source: ESRI, World Street Map; GANDA GIS 2011

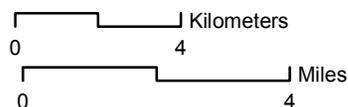
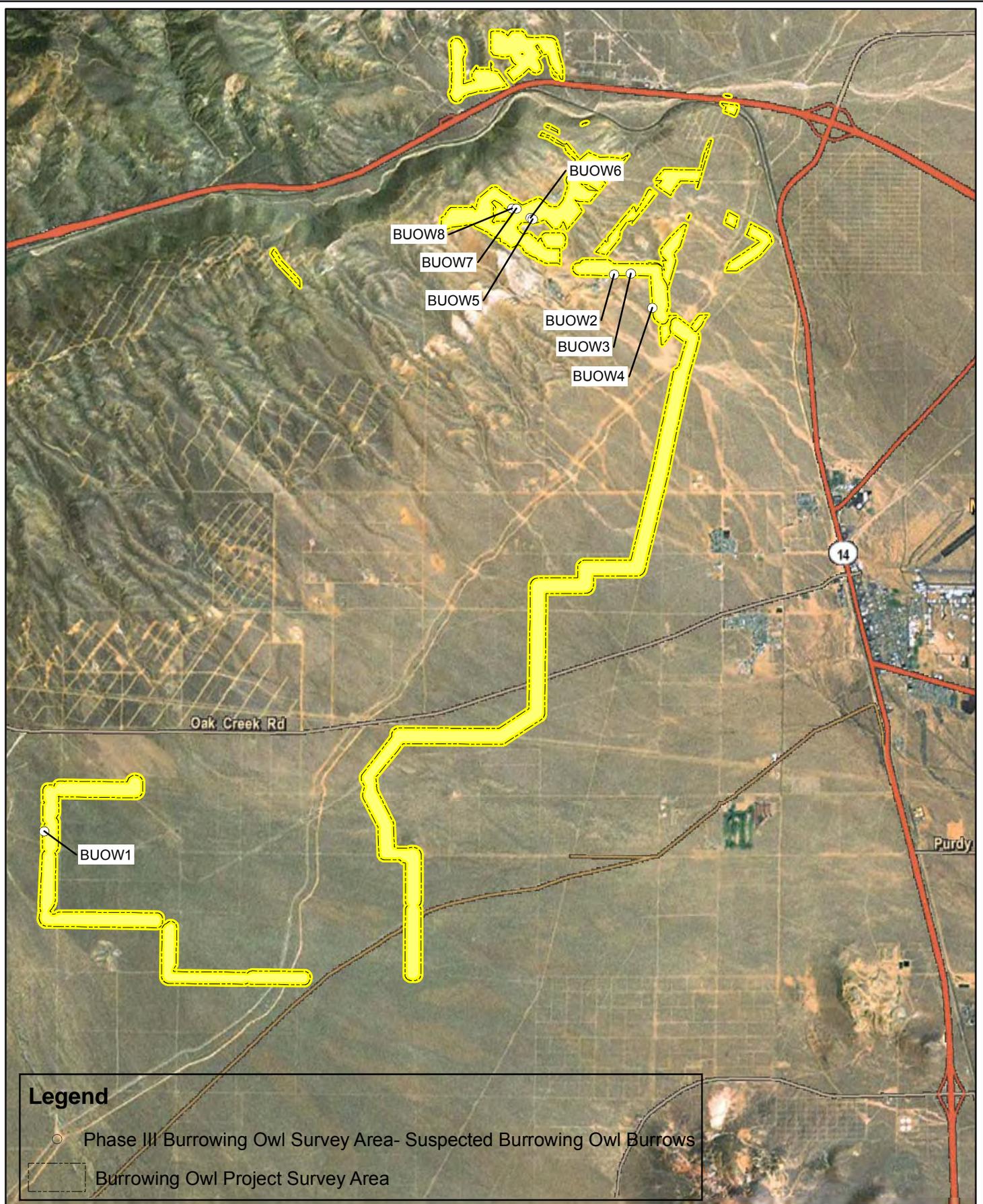


Figure 1. Project Location
Alta East Wind Energy Project
Kern County, CA
August 2011



Legend

- Phase III Burrowing Owl Survey Area- Suspected Burrowing Owl Burrows
- Burrowing Owl Project Survey Area



Source: ESRI, World Street Map; GANDA GIS 2011

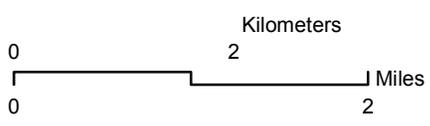
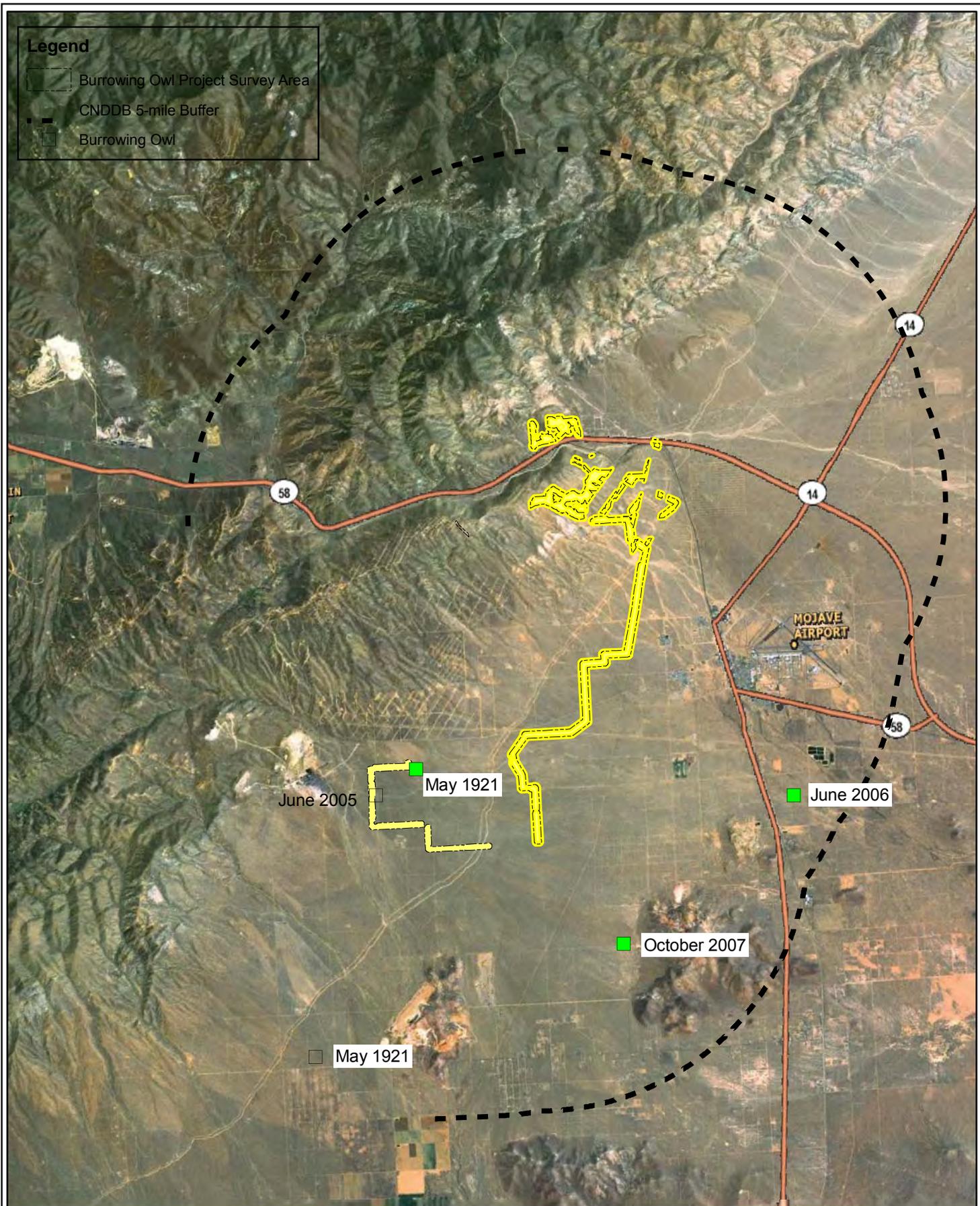


Figure 2. Phase III Burrowing Owl Survey Area
 Alta East Wind Energy Project
 Kern County, CA
 August 2011



Legend

-  Burrowing Owl Project Survey Area
-  CNDDDB 5-mile Buffer
-  Burrowing Owl

Source: ESRI, World Street Map; GANDA GIS 2011

Figure 3. 5-mile CNDDDB Burrowing Owl Occurrences

Alta East Wind Energy Project

Kern County, CA

August 2011

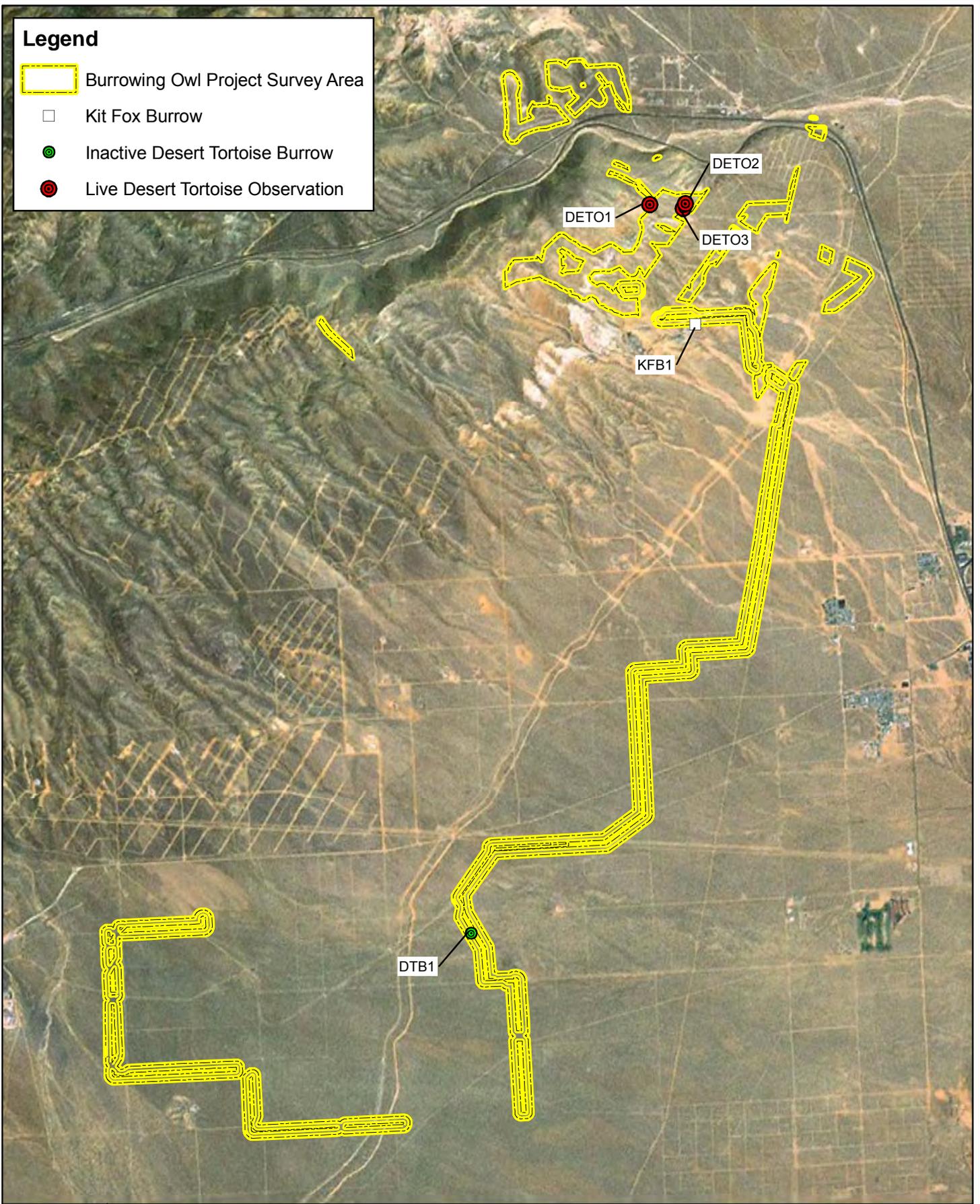


Project Location:



Legend

-  Burrowing Owl Project Survey Area
-  Kit Fox Burrow
-  Inactive Desert Tortoise Burrow
-  Live Desert Tortoise Observation



Source: ESRI, I3_Imagery_Prime_World_2D; GANDAGIS 2011

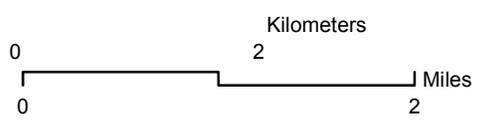


Figure 4. Incidental Results
Alta East Wind Energy Project
Kern County, CA
August 2011

APPENDIX B

Alta East Wind Energy Project

Representative Photos

List of Representative Photos	
Alta East Burrowing Owl Phase I, II, and III Surveys 2011	
Survey Area Habitat Photos	
Photo 1	Mojave Creosote Bush Scrub Habitat
Potential Burrowing Owl Burrow Photos	
Photo 2	BUOW1
Photo 3	BUOW2
Photo 4	BUOW3
Photo 5	BUOW4
Photo 6	BUOW5
Photo 7	BUOW6
Photo 8	BUOW8
Incidental Species Photos	
Photo 9	Live Desert Tortoise and Class 1 Burrow (DETO1)
Photo 10	Live Desert Tortoise Inside Burrow (DETO2)
Photo 11	Live Desert Tortoise and Class 1 Burrow (DETO3)
Photo 12	Desert Kit Fox Burrow with recent sign (KFB1)



Photo 1. Mojave Creosote Bush Scrub Habitat.



Photo 2. Potential Burrowing Owl Burrow (BUOW1).

Left Photo: with owl sign on April 20, 2011, during Phase I and II surveys.

Right Photo: no owl sign on June 16, 2011, during Phase III surveys.



Photo 3. Potential Burrowing Owl Burrow (BUOW2).



Photo 4. Potential Burrowing Owl Burrow (BUOW3).



Photo 5. Potential Burrowing Owl Burrow (BUOW4).



Photo 6. Potential Burrowing Owl Burrow (BUOW5).



Photo 7. Potential Burrowing Owl Burrow (BUOW6).



Photo 8. Potential Burrowing Owl Burrow (BUOW8).



Photo 9. Live Desert Tortoise and Class 1 Burrow (DETO1).

Left Photo: live desert tortoise inside burrow on July 25, 2011, during Phase III surveys.

Right Photo: Class 1 desert tortoise burrow on July 25, 2011, during Phase III surveys.



Photo 10. Live Desert Tortoise Inside Burrow (DETO2).



Photo 11. Live Desert Tortoise and Class 1 Burrow (DETO3).

**Left Photo: Class 1 desert tortoise burrow on July 25, 2011, during Phase III surveys.
Right Photo: live desert tortoise inside burrow on July 25, 2011, during Phase III surveys.**



Photo 12. Desert Kit Fox Burrow (KFB1) with recent sign.

APPENDIX C

Alta East Wind Energy Project

Field Data Sheets

Sensitive Wildlife Survey Form

Date: <u>4/26/11</u>	Biological Surveyor(s): <u>M.Grabner, R.Hilgrs, S.Scott, D.Beckett, S.Paris</u>
Start Time: <u>0900</u>	Site/Engineering Feature: <u>Alta East</u>
End Time: _____	GPS Name+File Name: <u>Suncreek_BUOW_MG_042611</u>
Page <u>1</u> / <u>1</u>	Habitat Community: <u>Juniper woodland</u>
Temperature Range: <u>60</u> °F	Wind Speed Range <u>10mph</u>
Cloud Cover Range <u>0-5</u> %	Precipitation w/in last 24hrs? <u>Yes</u> No

ID#	Find ¹	Sex	MCL (mm)	Class ²	Dimensions ³ W-H-D (inches)	End Visible? (Y/N)	Burrow Orientation	Photo # and Photographer	Notes
	No Data Recorded								

Incidental Species:

- 1 FIND**
 Desert Tortoise = (Live DETO, DETO Scat, DETO Carcass, DETO Burrow, DETO Sign Other)
 Burrowing Owl = (Potential BUOW with/without sign, BUOW Occupied Burrow, BUOW Unoccupied Burrow w/ Sign, BUOW Unoccupied Burrow w/o Sign) Mohave
 Fringe-Toed Lizard = (MFTL)
 Bird Nest= (Bird Active Nest, Bird Inactive Nest, Bird Unknown Nest Activity)
 Other = (Other *describe*) i.e. "Other_Badger" or "Other_Kfox"

- 2 Class**
- | | | |
|---|---|--|
| <p>DETO BURROW- CLASS
 1= currently active, w/ DETO or recent sign
 2= good condition, definitely DETO, no evidence of recent use
 3= deteriorated, definitely DETO
 4= good condition, possibly DETO
 5=deteriorated, possibly DETO</p> | <p>DETO SCAT- CLASS
 1=wet or freshly dried, obvious odor
 2=dry w/ glaze and some odor, no bleaching (dark brown)
 3=dry w/o glaze or odor; light brown, tightly packed
 4=dry w/o glaze, yellow, loose material, scaly appearance
 5=dry w/o glaze or odor, bleached (white)</p> | <p>LIVE DETO-CLASS
 Condition: 1=healthy
 2=evidence of URDS
 3=shell cracked
 4=peeling scutes
 5=ticks
 6=other</p> |
| <p>DETO CARCASS- CLASS
 1= fresh
 2= normal color, scutes adhering to bone
 3= scutes have peeled off bone
 4= bones falling apart, growth rings on scutes are peeling
 5= disarticulated and scattered</p> | <p>DETO SIGN OTHER- CLASS
 1= egg shell
 2= drinking site
 3=courtship ring
 4=evidence of fight
 5= vegetation grazed</p> | |

3 Dimensions: If burrow has only one entrance, measure size of burrow. If burrow has multiple burrow entrances, write 'ME' only; no measurements needed.

Sensitive Wildlife Survey Form

Date: <u>5/2/11</u>	Biological Surveyor(s): <u>J.Finck, L.Megill, D.Beckett, S.Scott, R.Hilgris, A.Gallardo</u>
Start Time: <u>0900</u>	Site/Engineering Feature: <u>Alta East</u>
End Time: <u>1330</u>	GPS Name+File Name: <u>Iggy+ Suncreek BUOW Survey Master</u>
Page <u>1</u> / <u>1</u>	Habitat Community: <u>Creosote Bush Scrub</u>
Temperature Range: <u>60-80</u> °F	Wind Speed Range <u>0-5</u>
Cloud Cover Range <u>0-3</u> %	Precipitation w/in last 24hrs? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

ID#	Find ¹	Sex	MCL (mm)	Class ²	Dimensions ³ W-H-D (inches)	End Visible? (Y/N)	Burrow Orientation	Photo # and Photographer	Notes
25	KFOX burrow	-	-	-	8-6->24	No	SW	AG+LM	scat
26	Pot. BUOW no sign	-	-	-	6-4->12	No	West	-	approp. shape
27	Pot. BUOW no sign	-	-	-	7-5->12	No	East	-	approp. shape
28	Pot. BUOW no sign	-	-	-	7-6->12	No	East	-	approp. shape

Incidental Species: lesser nighthawk, California thrasher, western whiptail, antelope ground squirrel, greater roadrunner

- 1 FIND**
 Desert Tortoise = (Live DETO, DETO Scat, DETO Carcass, DETO Burrow, DETO Sign Other)
 Burrowing Owl = (Potential BUOW with/without sign, BUOW Occupied Burrow, BUOW Unoccupied Burrow w/ Sign, BUOW Unoccupied Burrow w/o Sign)
 Mohave Fringe-Toed Lizard = (MFTL)
 Bird Nest= (Bird Active Nest, Bird Inactive Nest, Bird Unknown Nest Activity)
 Other = (Other_describe) i.e. "Other_Badger" or "Other_Kfox"

- 2 Class**
- | | | |
|---|---|--|
| <p>DETO BURROW- CLASS
 1= currently active, w/ DETO or recent sign
 2= good condition, definitely DETO, no evidence of recent use
 3= deteriorated, definitely DETO
 4= good condition, possibly DETO
 5=deteriorated, possibly DETO</p> | <p>DETO SCAT- CLASS
 1=wet or freshly dried, obvious odor
 2=dry w/ glaze and some odor, no bleaching (dark brown)
 3=dry w/o glaze or odor; light brown, tightly packed
 4=dry w/o glaze, yellow, loose material, scaly appearance
 5=dry w/o glaze or odor, bleached (white)</p> | <p>LIVE DETO-CLASS
 Condition: 1=healthy
 2=evidence of URDS
 3=shell cracked
 4=peeling scutes
 5=ticks
 6=other</p> |
| <p>DETO CARCASS- CLASS
 1= fresh
 2= normal color, scutes adhering to bone
 3= scutes have peeled off bone
 4= bones falling apart, growth rings on scutes are peeling
 5= disarticulated and scattered</p> | <p>DETO SIGN OTHER- CLASS
 1= egg shell
 2= drinking site
 3=courtship ring
 4=evidence of fight
 5= vegetation grazed</p> | |

3 Dimensions: If burrow has only one entrance, measure size of burrow. If burrow has multiple burrow entrances, write 'ME' only; no measurements needed.

Sensitive Wildlife Survey Form

Date: <u>7.19.11</u>	Biological Surveyor(s): <u>J.Finck, S.Deichsel, K.Steiner, M.Adam, K.Morse</u>
Start Time: <u>0730</u>	Site/Engineering Feature: <u>Alta East-Burrowing Owl</u>
End Time: <u>1600</u>	GPS Name+File Name: <u>None</u>
Page <u>1</u> / <u>1</u>	Habitat Community: <u>creosote scrub, j-tree woodland</u>
Temperature Range: <u>90-95</u> °F	Wind Speed Range <u>5</u> mph
Cloud Cover Range <u>5</u> %	Precipitation w/in last 24hrs? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

ID#	Find ¹	Sex	MCL (mm)	Class ²	Dimensions ³ W-H-D (inches)	End Visible? (Y/N)	Burrow Orientation	Photo # and Photographer	Notes
-	None	-	-	-	-	-	-	-	-

Incidental Species: jack rabbit, whiptail, antelope ground squirrel

Photos:

1 FIND

- Desert Tortoise = (Live DETO, DETO Scat, DETO Carcass, DETO Burrow, DETO Sign Other)
- Burrowing Owl = (BUOW Occupied Burrow w/ Sign, BUOW Unoccupied Burrow w/ Sign, BUOW Unoccupied Burrow w/o Sign)
- Mohave Fringe-Toed Lizard = (MFTL)
- Bird Nest= (Bird Active Nest, Bird Inactive Nest, Bird Unknown Nest Activity)
- Other = (Other_describe) i.e. "Other_Badger" or "Other_Kfox"

2 Class

- DETO BURROW- CLASS (DTC 1994)**
- 1= currently active, w/ DETO or recent sign
 - 2= good condition, definitely DETO, no evidence of recent use
 - 3= deteriorated, definitely DETO
 - 4= good condition, possibly DETO
 - 5=deteriorated, possibly DETO

- DETO SCAT- CLASS (USFWS 1992)**
- 1=wet or freshly dried, obvious odor
 - 2=dry w/ glaze and some odor, no bleaching (dark brown)
 - 3=dry w/o glaze or odor; light brown, tightly packed
 - 4=dry w/o glaze, yellow, loose material, scaly appearance
 - 5=dry w/o glaze or odor, bleached (white)

- LIVE DETO-CLASS Condition:**
- 1=healthy
 - 2=evidence of URDS
 - 3=shell cracked
 - 4=peeling scutes
 - 5=ticks
 - 6=other

- DETO CARCASS- CLASS (USFWS 1992)**
- 1= fresh
 - 2= normal color, scutes adhering to bone
 - 3= scutes have peeled off bone
 - 4= bones falling apart, growth rings on scutes are peeling
 - 5= disarticulated and scattered

- DETO SIGN OTHER- CLASS**
- 1= egg shell
 - 2= drinking site
 - 3=courtship ring
 - 4=evidence of fight
 - 5= vegetation grazed

3 Dimensions: If burrow has only one entrance, measure size of burrow. If burrow has multiple burrow entrances, write 'ME' only; no measurements needed.

Sensitive Wildlife Survey Form

Date: <u>7.20.11</u>	Biological Surveyor(s): <u>K.Steiner, M.Adam, K.Morse</u>
Start Time: <u>0740</u>	Site/Engineering Feature: <u>Alta East-Burrowing Owl</u>
End Time: <u>1415</u>	GPS Name+File Name: <u>AE_KS_07202011</u>
Page <u>1</u> / <u>1</u>	Habitat Community: <u>eriog. Fasc. Shrubland</u>
Temperature Range: <u>70</u> °F	Wind Speed Range <u>0-5</u> mph
Cloud Cover Range <u>0</u> %	Precipitation w/in last 24hrs? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

ID#	Find ¹	Sex	MCL (mm)	Class ²	Dimensions ³ W-H-D (inches)	End Visible? (Y/N)	Burrow Orientation	Photo # and Photographer	Notes
-	None	-	-	-	-	-	-	-	-

Incidental Species:

Photos:

1 FIND

- Desert Tortoise = (Live DETO, DETO Scat, DETO Carcass, DETO Burrow, DETO Sign Other)
- Burrowing Owl = (BUOW Occupied Burrow w/ Sign, BUOW Unoccupied Burrow w/ Sign, BUOW Unoccupied Burrow w/o Sign)
- Mohave Fringe-Toed Lizard = (MFTL)
- Bird Nest= (Bird Active Nest, Bird Inactive Nest, Bird Unknown Nest Activity)
- Other = (Other_describe) i.e. "Other_Badger" or "Other_Kfox"

2 Class

- DETO BURROW- CLASS (DTC 1994)**
- 1= currently active, w/ DETO or recent sign
 - 2= good condition, definitely DETO, no evidence of recent use
 - 3= deteriorated, definitely DETO
 - 4= good condition, possibly DETO
 - 5=deteriorated, possibly DETO

- DETO SCAT- CLASS (USFWS 1992)**
- 1=wet or freshly dried, obvious odor
 - 2=dry w/ glaze and some odor, no bleaching (dark brown)
 - 3=dry w/o glaze or odor; light brown, tightly packed
 - 4=dry w/o glaze, yellow, loose material, scaly appearance
 - 5=dry w/o glaze or odor, bleached (white)

- LIVE DETO-CLASS Condition:**
- 1=healthy
 - 2=evidence of URDS
 - 3=shell cracked
 - 4=peeling scutes
 - 5=ticks
 - 6=other

- DETO CARCASS- CLASS (USFWS 1992)**
- 1= fresh
 - 2= normal color, scutes adhering to bone
 - 3= scutes have peeled off bone
 - 4= bones falling apart, growth rings on scutes are peeling
 - 5= disarticulated and scattered

- DETO SIGN OTHER- CLASS**
- 1= egg shell
 - 2= drinking site
 - 3=courtship ring
 - 4=evidence of fight
 - 5= vegetation grazed

3 Dimensions: If burrow has only one entrance, measure size of burrow. If burrow has multiple burrow entrances, write 'ME' only; no measurements needed.

Sensitive Wildlife Survey Form

Date: <u>7.21.11</u>	Biological Surveyor(s): <u>S.Deichsel, K.Morse</u>
Start Time: <u>0715</u>	Site/Engineering Feature: <u>Alta East-Burrowing Owl</u>
End Time: <u>1515</u>	GPS Name+File Name: <u>AE_KM_07212011</u>
Habitat Community: <u>creosote scrub, juniper woodland</u>	
Temperature Range: <u>90-95</u> °F	Wind Speed Range <u>10</u> mph
Page <u>1</u> / <u>1</u>	Cloud Cover Range <u>5</u> % Precipitation w/in last 24hrs? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

ID#	Find ¹	Sex	MCL (mm)	Class ²	Dimensions ³ W-H-D (inches)	End Visible? (Y/N)	Burrow Orientation	Photo # and Photographer	Notes
22	Pot. BUOW burrow- no sign	-	-	-	ME (3)	No	-	Yes	Aprons w/ no sign
24	Pot. BUOW burrow- no sign	-	-	-	8-6-?	No	SE	Yes	Possible fox burrow
25	Pot. BUOW burrow- no sign	-	-	-	6-8-?	No	NE	Yes	Steep entrance

Incidental Species:

Photos:

1 FIND

- Desert Tortoise = (Live DETO, DETO Scat, DETO Carcass, DETO Burrow, DETO Sign Other)
- Burrowing Owl = (BUOW Occupied Burrow w/ Sign, BUOW Unoccupied Burrow w/ Sign, BUOW Unoccupied Burrow w/o Sign)
- Mohave Fringe-Toed Lizard = (MFTL)
- Bird Nest= (Bird Active Nest, Bird Inactive Nest, Bird Unknown Nest Activity)
- Other = (Other_describe) i.e. "Other_Badger" or "Other_Kfox"

2 Class

DETO BURROW- CLASS (DTC 1994)

- 1= currently active, w/ DETO or recent sign
- 2= good condition, definitely DETO, no evidence of recent use
- 3= deteriorated, definitely DETO
- 4= good condition, possibly DETO
- 5=deteriorated, possibly DETO

DETO SCAT- CLASS (USFWS 1992)

- 1=wet or freshly dried, obvious odor
- 2=dry w/ glaze and some odor, no bleaching (dark brown)
- 3=dry w/o glaze or odor; light brown, tightly packed
- 4=dry w/o glaze, yellow, loose material, scaly appearance
- 5=dry w/o glaze or odor, bleached (white)

LIVE DETO-CLASS

- Condition: 1=healthy
- 2=evidence of URDS
- 3=shell cracked
- 4=peeling scutes
- 5=ticks
- 6=other

DETO CARCASS- CLASS (USFWS 1992)

- 1= fresh
- 2= normal color, scutes adhering to bone
- 3= scutes have peeled off bone
- 4= bones falling apart, growth rings on scutes are peeling
- 5= disarticulated and scattered

DETO SIGN OTHER- CLASS

- 1= egg shell
- 2= drinking site
- 3=courtship ring
- 4=evidence of fight
- 5= vegetation grazed

3 Dimensions: If burrow has only one entrance, measure size of burrow. If burrow has multiple burrow entrances, write 'ME' only; no measurements needed.

Sensitive Wildlife Survey Form

Date: <u>7.22.11</u>	Biological Surveyor(s): <u>S.Deichsel, K.Steiner</u>
Start Time: <u>0700</u>	Site/Engineering Feature: <u>Alta East-Burrowing Owl</u>
End Time: <u>1530</u>	GPS Name+File Name: <u>AE_KS_07222011</u>
Habitat Community: <u>creosote scrub, juniper woodland</u>	
Temperature Range: <u>95-100</u> °F	Wind Speed Range <u>5</u> mph
Page <u>1</u> / <u>1</u>	Cloud Cover Range <u>0</u> % Precipitation w/in last 24hrs? <input checked="" type="checkbox"/> Yes No

ID#	Find ¹	Sex	MCL (mm)	Class ²	Dimensions ³ W-H-D (inches)	End Visible? (Y/N)	Burrow Orientation	Photo # and Photographer	Notes
4	Pot BUOW Burrow- no sign	-	-	-	10-12-?	No	E	-	-

Incidental Species:

Photos:

1 FIND

- Desert Tortoise = (Live DETO, DETO Scat, DETO Carcass, DETO Burrow, DETO Sign Other)
- Burrowing Owl = (BUOW Occupied Burrow w/ Sign, BUOW Unoccupied Burrow w/ Sign, BUOW Unoccupied Burrow w/o Sign)
- Mohave Fringe-Toed Lizard = (MFTL)
- Bird Nest= (Bird Active Nest, Bird Inactive Nest, Bird Unknown Nest Activity)
- Other = (Other_*describe*) i.e. "Other_Badger" or "Other_Kfox"

2 Class

DETO BURROW- CLASS (DTC 1994)

- 1= currently active, w/ DETO or recent sign
- 2= good condition, definitely DETO, no evidence of recent use
- 3= deteriorated, definitely DETO
- 4= good condition, possibly DETO
- 5=deteriorated, possibly DETO

DETO SCAT- CLASS (USFWS 1992)

- 1=wet or freshly dried, obvious odor
- 2=dry w/ glaze and some odor, no bleaching (dark brown)
- 3=dry w/o glaze or odor; light brown, tightly packed
- 4=dry w/o glaze, yellow, loose material, scaly appearance
- 5=dry w/o glaze or odor, bleached (white)

LIVE DETO-CLASS

- Condition: 1=healthy
- 2=evidence of URDS
- 3=shell cracked
- 4=peeling scutes
- 5=ticks
- 6=other

DETO CARCASS- CLASS (USFWS 1992)

- 1= fresh
- 2= normal color, scutes adhering to bone
- 3= scutes have peeled off bone
- 4= bones falling apart, growth rings on scutes are peeling
- 5= disarticulated and scattered

DETO SIGN OTHER- CLASS

- 1= egg shell
- 2= drinking site
- 3=courtship ring
- 4=evidence of fight
- 5= vegetation grazed

3 Dimensions: If burrow has only one entrance, measure size of burrow. If burrow has multiple burrow entrances, write 'ME' only; no measurements needed.

Sensitive Wildlife Survey Form

Date: <u>7.25.11</u>	Biological Surveyor(s): <u>S.Deichsel, S.McBee</u>
Start Time: <u>1400</u>	Site/Engineering Feature: <u>Alta East-Burrowing Owl</u>
End Time: <u>1730</u>	GPS Name+File Name: <u>AE_SD_07252011</u>
Habitat Community: <u>creosote scrub</u>	
Temperature Range: <u>70-80</u> °F	Wind Speed Range <u>5-15</u> mph
Page <u>1</u> / <u>1</u>	Cloud Cover Range <u>0</u> % Precipitation w/in last 24hrs? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

ID#	Find ¹	Sex	MCL (mm)	Class ²	Dimensions ³ W-H-D (inches)	End Visible? (Y/N)	Burrow Orientation	Photo # and Photographer	Notes
2	Live DETO	U	U	1	13-7-?	N	S	SM	Looks adult-size. Inside burrow
3	Live DETO	U	U	1	8-5-25	N	SE	SM	Looks juvenile. Inside burrow
4	Live DETO	U	U	1	13-5-?	N	S	SM	Looks juvenile. Inside burrow

Incidental Species: California quail

Photos:

1 FIND

- Desert Tortoise = (Live DETO, DETO Scat, DETO Carcass, DETO Burrow, DETO Sign Other)
- Burrowing Owl = (BUOW Occupied Burrow w/ Sign, BUOW Unoccupied Burrow w/ Sign, BUOW Unoccupied Burrow w/o Sign)
- Mohave Fringe-Toed Lizard = (MFTL)
- Bird Nest= (Bird Active Nest, Bird Inactive Nest, Bird Unknown Nest Activity)
- Other = (Other_*describe*) i.e. "Other_Badger" or "Other_Kfox"

2 Class

DETO BURROW- CLASS (DTC 1994)

- 1= currently active, w/ DETO or recent sign
- 2= good condition, definitely DETO, no evidence of recent use
- 3= deteriorated, definitely DETO
- 4= good condition, possibly DETO
- 5=deteriorated, possibly DETO

DETO SCAT- CLASS (USFWS 1992)

- 1=wet or freshly dried, obvious odor
- 2=dry w/ glaze and some odor, no bleaching (dark brown)
- 3=dry w/o glaze or odor; light brown, tightly packed
- 4=dry w/o glaze, yellow, loose material, scaly appearance
- 5=dry w/o glaze or odor, bleached (white)

LIVE DETO-CLASS

- Condition: 1=healthy
- 2=evidence of URDS
 - 3=shell cracked
 - 4=peeling scutes
 - 5=ticks
 - 6=other

DETO CARCASS- CLASS (USFWS 1992)

- 1= fresh
- 2= normal color, scutes adhering to bone
- 3= scutes have peeled off bone
- 4= bones falling apart, growth rings on scutes are peeling
- 5= disarticulated and scattered

DETO SIGN OTHER- CLASS

- 1= egg shell
- 2= drinking site
- 3=courtship ring
- 4=evidence of fight
- 5= vegetation grazed

3 Dimensions: If burrow has only one entrance, measure size of burrow. If burrow has multiple burrow entrances, write 'ME' only; no measurements needed.

APPENDIX D

Alta East Wind Energy Project

Wildlife Observation List

Common Name	Scientific Name
Avian	
Mourning dove	<i>Zenaida macroura</i>
Chuckar	<i>Alectoris chukar</i>
California quail	<i>Callipepla californica</i>
Gambel's quail	<i>Callipepla gambelii</i>
Greater roadrunner	<i>Geococcyx californianus</i>
Western meadowlark	<i>Sturnella neglecta</i>
Dark-eyed junco	<i>Junco hyemalis</i>
Grasshopper sparrow	<i>Ammodramus savannarum</i>
Song sparrow	<i>Melospiza melodia</i>
Savanna sparrow	<i>Passerculus sandwichensis</i>
White-crowned sparrow	<i>Zonotrichia leucophrys</i>
Chipping sparrow	<i>Spizella passerina</i>
Lark sparrow	<i>Chondestes grammacus</i>
Cliff swallow	<i>Petrochelidon pyrrhonota</i>
Says phoebe	<i>Sayornis saya</i>
Gray flycatcher	<i>Empidonax wrightii</i>
Black-throated gray warbler	<i>Dendroica nigrescens</i>
Wilson's warbler	<i>Wilsonia pusilla</i>
Western kingbird	<i>Tyrannus verticalis</i>
Loggerhead shrike	<i>Lanius ludovicianus</i>
Black-headed grosbeak	<i>Pheucticus melanocephalus</i>
Sage thrasher	<i>Oreoscoptes montanus</i>
Costa's hummingbird	<i>Calypte costae</i>
Western scrub-jay	<i>Aphelocoma californica</i>
Common raven	<i>Corvus corax</i>
Burrowing owl	<i>Athene cunicularia</i>
American kestrel	<i>Falco sparverius</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Red-shouldered hawk	<i>Buteo lineatus</i>
Reptiles	
Side-blotched lizard	<i>Uta stansburiana</i>
Western whiptail lizard	<i>Aspidozelis tigris</i>
Zebra-tailed lizard	<i>Callisaurus draconoides</i>
Desert spiny lizard	<i>Sceloporus magister</i>
Desert horned lizard	<i>Phrynosoma platyrhinos</i>
Desert iguana	<i>Dipsosaurus dorsalis</i>
Gopher snake	<i>Pituophis catenifer catenifer</i>
Striped whipsnake	<i>Coluber taeniatus taeniatus</i>
Mojave rattlesnake	<i>Crotalus scutulatus</i>
Mammals	
Desert kangaroo rat	<i>Dipodomys deserti</i>
Antelope ground squirrel	<i>Ammospermophilus leucurus</i>
California ground squirrel	<i>Spermophilus beecheyi</i>
Desert cottontail rabbit	<i>Sylvilagus audubonii</i>
Black-tailed jackrabbit	<i>Lepus californicus</i>
Desert kit fox	<i>Vulpes macrotis arsipus</i>