

# **Appendix D-22**

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## **Mohave Ground Squirrel Results 2010**

# Alta Infill Wind Energy Project

## Small Mammal Trapping Results

Prepared for:

CH2M HILL

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## INTRODUCTION

CH2M HILL contracted William J. Vanherweg, certified wildlife biologist, to conduct protocol small mammal surveys for the proposed Alta Infill Wind Project. Alta Windpower Development, LLC proposes to develop up to 192 MW of wind energy on approximately 1,460 acres of land in the Tehachapi region of Kern County, California. The purpose of this document is to present baseline data to be used to assess the presence of rare, threatened, or endangered mammal species at and/or near the project site near Mojave, California.

### **Applicable Laws, Ordinances, Regulations, and Standards**

The laws, ordinances, regulations, and standards related to biological resources that potentially apply to the project are discussed below.

California Endangered Species Act (CESA): Compliance with the CESA is required because the project area is within habitats currently or historically occupied by the threatened desert tortoise (*Gopherus agassizii*) and Mohave ground squirrel (*Spermophilus mohavense*). If project field assessments indicate that there is a likelihood of “take” of these species, consultation with the California Department of Fish and Game (CDFG) under Fish and Game Code Section 2050 and 2091 will be required.

California Environmental Quality Act (CEQA): The effects of the project on environmental resources must be analyzed and assessed as to their significance using criteria provided in various sections and appendices of CEQA.

## ENVIRONMENTAL SETTING

### Vegetation

The project site (Figure 1) is predominantly creosote bush (*Larrea divericata*) scrub habitat with some Joshua tree woodland and Mixed Mojave scrub. All habitats exhibit light to moderate disturbance. Human disturbance near the project area include: urban/industrial development, scattered trash, State highway 58. The elevation of the site is approximately 3,000 to 4,400 feet above sea level.

### Wildlife

**General Wildlife.** The desert scrub habitats in the project area support a wide variety of birds, mammals, and reptiles. Bird species include, but are not limited to red-tailed hawks (*Buteo jamaicensis*), burrowing owl (*Athene cunicularia*), western meadowlark (*Sturnella neglecta*), and Nevada loggerhead shrike (*Lanius ludovicianus nevadensis*). Mammals occupying these habitat types are black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), kangaroo rat (*Dipodomys* spp.), deer mouse (*Peromyscus maniculatus*), desert kit fox (*Vulpes velox arsipus*), coyote (*Canis latrans*), and American badger (*Taxidae taxus*). Amphibians and reptiles include, side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*), western rattlesnake (*Crotalus viridis*), and gopher snake (*Pituophis melanoleucus*).

**Economically Important Species.** There are no species of economic importance in the project area.

**Biologically Sensitive Areas.** The project lies outside any biologically sensitive area.

## Studies Required

We conducted surveys to identify the presence of Mohave ground squirrel (MGS), and other sensitive small mammal species (i.e. Tulare grasshopper mouse and Tehachapi pocket mouse) that could be present near the project area. We used methodologies recommended by the California Department of Fish and Game (CDFG 2003).

**Table 1. Sensitive species that potentially occur at the project site.**

<b>Species</b>	<b>Status</b>
<b>Mojave ground squirrel</b> ( <i>Spermophilus mojavensis</i> )	CT
<b>Tulare grasshopper mouse</b> ( <i>Onychomys torridus tularensis</i> )	CSC
<b>Tehachapi pocket mouse</b> ( <i>Perognathus alticola inexpectatus</i> )	CSC

Legend

CT= Listed as threatened by the state of California

CSC= California Species of Concern

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The section below contains brief descriptions of each of the sensitive species contained in Table 1.

### **Mohave Ground Squirrel**

Mohave ground squirrels are approximately 8.5 - 9 inches in length and can be found in desert scrub habitats. Activity periods for this species vary and little is known about their reproduction (Ingles 1979). Their diet consists of seeds, vegetative parts of desert plants including fruits of the Joshua tree. Due to the aridity and high temperatures of its environment they are a diurnal species spending up to seven months underground. The Mohave ground squirrel was delisted as threatened by California Department of Fish and Game Commission. The delistment action was challenged and the species remains on the threatened list until the courts decide otherwise. The species is currently being considered for listing under the federal Endangered Species Act as endangered (75 Fed. Reg. 22063).

### **Tulare Grasshopper Mouse**

The Tulare grasshopper mouse appears to be primarily nocturnal and is active year-round (Williams unpubl. observ. as cited in Bolster, ed., 1998). Typical prey includes grasshoppers, crickets, caterpillars, moths, scorpions, and beetles (Bailey and Sperry 1929), but other foods such as seeds, a variety of other insects and spiders, reptiles and salamanders may also be eaten (Horner et al. 1964, McCarty 1975). Although grasshopper mice may construct nests in burrows which they excavate, they typically construct nests in burrows which have been abandoned by other rodents (Bailey and Sperry 1929). The Tulare grasshopper mouse is a state species of special concern, which does not confer any legal protections, but rather calls attention to a species that may be listed at some time in the future.

### **Tehachapi Pocket Mouse**

The Tehachapi pocket mouse is medium-sized for the genus, averaging (5.9 and 6.5 in.) in total length for females and males, respectively (Best, 1994 Little is know about the ecology of the Tehachapi pocket mouse. Other members of the species group are nocturnal granivores, foraging primarily on seeds of grasses, forbs and annuals, but also on leafy plant material and insects (Verts and Kirkland, 1988). Most other members of the genus exhibit seasonal hibernation (Verts and Kirkland, 1988). The Tehachapi pocket mouse occupies native and non-native grasslands, Joshua tree woodland, pinyon-juniper woodland, yellow pine woodland and oak savannah (Williams et al., 1993). It constructs burrows in loose, sandy soils. The Tehachapi pocket mouse is a state species of special concern, which does not confer any legal protections, but rather calls attention to a species that may be listed at some time in the future.

## **FIELD SURVEY METHODS**

### **Mohave Ground Squirrel**

Surveys for Mohave ground squirrels were consistent with the survey guidelines issued by CDFG (CDFG, 2003)(Appendix 1).. After an evaluation of habitat suitability, six trapping grids were established along linear portions of the project including turbine strings and proposed access roads (Figure 1).

### **Tulare Grasshopper Mouse**

Surveys for Tulare grasshopper mice were conducted by leaving the small mammal traps placed on grids to open for a maximum of four consecutive nights (Figure 1).

## **Tehachapi Pocket Mouse**

Trapping for Tehachapi pocket mouse in appropriate habitats of the northwest portion of the project area (Figure 1) was conducted 20-23 July 2010. Twelve-inch Sherman live traps were set in two parallel lines along proposed turbine corridors. The traps were baited with bird seed at dusk and checked at dawn of the next day. Trap spacing was 50; 25 traps were placed at Grid 7, 20 traps were placed at Grid 8, and 30 traps were placed at Grid 9 (Figure 1).

**INSERT FIGURE 1**

# RESULTS

## Mohave Ground Squirrel

**Visual Surveys were conducted by:** Bill Vanherweg

**Results of Visual Survey:** No MGS were observed

**DOMINANT ANNUALS** – *Erodium cicutarium*, *Amsinkia sp.*, *Bromus tectorum*, *Bromus madritensis.*, *Mentzelia sp.*

**DOMINANT PERENNIALS-**, *Hymenoclea salsola*, *Yucca brevifolia*, *Ericameria sp.*, *Chrysothamnus nauseosus*, *Achnatherum sp.*

**OTHER PERENNIALS-** *Juniperus californicus*, *Lycium andersonii*, *Tetradymia spinosa*, *Krashnekovia lanata*, *Cholla sp.*, *Encelia farinosa*. *Eriogonum fasciculatum*, *Ephedra sp.*

**Elevation** – Approx. 3000 to 4,400 ft

**Slope** – 0% - 3%

**Trapping conducted by:** William Vanherweg, Paul Vanherweg, and Mike McGovern.

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**Grid 1****First Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS*	MGS*	AM	PM	AM	PM
3/26/2010	0700	42	1	0	10 %	CLEAR	10-15	10-15
	1700	51						
3/27/2010	0745	42	0	0	CLEAR	CLEAR	0-5	5-10
	1500	61						
3/28/2010	0730	57	2	0	CLEAR	CLEAR	0-5	0
	1500	70						
3/29/2010	0700	57	1	0	20%	10%	0-5	0-5
	1630	72						
3/30/2010	0630	47	0	0	10%	10%	5-10	30+
	1100	58						

**Second Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS	MGS	AM	PM	AM	PM
5/4/2010	0645	59	2	0	CLEAR	CLEAR	10-20	10-20
	1500	80						
5/5/2010	0645	51	0	0	10%	20%	30+	30+
	1200	71						
5/6/2010	0645	54	0	0	5%	CLEAR	20-30	10-25
	1400	77						
5/7/2010	0640	40	2	0	CLEAR	CLEAR	0-5	0-5
	1600	80						
5/8/2010	0645	49	0	0	5%	CLEAR	0-5	10-25
	1300	74						

**Third Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS	MGS	AM	PM	AM	PM
7/06/2010	0600	73	0	0	0 %	0 %	0-5	0-5
	1000	90+						
7/07/2010	0600	71	8	0	0 %	0 %	5-10	0-5
	1000	90+						
7/08/2010	0600	68	2	0	0 %	0 %	0-5	0-5
	1000	90+						
7/09/2010	0600	68	1	0	0 %	0 %	0-5	0-5
	0930	90+						
7/10/2010	0600	78	1	0	80 %	10 %	5-10	0-5
	0830	90+						

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\*AGS=antelope ground squirrel, MGS=Mohave ground squirrel

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**Grid 2****First Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS*	MGS*	AM	PM	AM	PM
3/26/2010	0700	42	0	0	10 %	CLEAR	10-15	10-15
	1700	51						
3/27/2010	0745	42	6	0	CLEAR	CLEAR	0-5	5-10
	1500	61	1 CAGS					
3/28/2010	0730	57	1	0	CLEAR	CLEAR	0-5	0
	1500	70						
3/29/2010	0700	57	2	0	20%	10%	0-5	0-5
	1630	72						
3/30/2010	0630	47	0	0	10%	10%	5-10	30+
	1100	58						

**Second Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS	MGS	AM	PM	AM	PM
5/4/2010	0645	59	0	0	CLEAR	CLEAR	3 SW	21-32 W
	1500	80						
5/5/2010	0645	51	0	0	10%	20%	14 SSW	17-23 SW
	1200	71						
5/6/2010	0645	54	0	0	5%	CLEAR	0	12-20 SSW
	1400	77						
5/7/2010	0640	40	2	0	CLEAR	CLEAR	3 WSW	7-17 SSE
	1600	80						
5/8/2010	0645	49	0	0	5%	CLEAR	3 SW	20-26 S
	1300	74						

**Third Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS	MGS	AM	PM	AM	PM
7/06/2010	0600	73	1	0	0 %	0 %	0-5	0-5
	1000	90+						
7/07/2010	0600	71	2	0	0 %	0 %	5-10	0-5
	1000	90+						
7/08/2010	0600	68	2	0	0 %	0 %	0-5	0-5
	1000	90+						
7/09/2010	0600	68	2	0	0 %	0 %	0-5	0-5
	0930	90+						
7/10/2010	0600	78	0	0	80 %	10 %	5-10	0-5
	0830	90+						

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\*AGS=antelope ground squirrel, MGS=Mohave ground squirrel

**Grid 3**

**First Sampling Term**

DATE	TIME	TEMP °F	CAPTURES		Cloud Cover		Wind speed (mi/hr)	
			AGS*	MGS*	AM	PM	AM	PM
3/31/10	0700	58	0	0	15	20	30	30
	1300	68						
4/1/10	0700	45	0	0	10	10	20	30
	1500	69						
4/2/10	0700	42	7	0	0	100	18	25
	1400	75						
4/3/10	0700	48	7	0	80	80	5	30
	1300	69						
4/4/10	0700	35	2	0	80	70	5	10
	1200	58						

**Second Sampling Term**

DATE	TIME	TEMP °F	CAPTURES		Cloud Cover		Wind speed (mi/hr)	
			AGS	MGS	AM	PM	AM	PM
5/1/10	0630	50	2	0	0	0	10	25
	1400	70						
5/2/10	0630	56	2	0	20	0	12	5
	1500	77						
5/3/10	0700	50	4	0	0	0	5	20
	1500	80						
5/4/10	0630	63	1	0	0	0	30	30
	1330	81						
5/5/10	0630	54	1	0	0	0	35	30
	1400	75						

\*AGS=antelope ground squirrel, MGS=Mohave ground squirrel

**Third Sampling Term (Turbine corridor removed from further consideration; not trapped)**

## Grid 4

### First Sampling Term

DATE	TIME	TEMP °F	CAPTURES		Cloud Cover		Wind speed (mi/hr)	
			AGS*	MGS*	AM	PM	AM	PM
3/31/10	0700	58	0	0	15	20	30	30
	1300	68						
4/1/10	0700	45	0	0	10	10	20	30
	1500	69						
4/2/10	0700	42	7	0	0	100	18	25
	1400	75						
4/3/10	0700	48	7	0	80	80	5	30
	1300	69						
4/4/10	0700	35	2	0	80	70	5	10
	1200	58						

### Second Sampling Term

DATE	TIME	TEMP °F	CAPTURES		Cloud Cover		Wind speed (mi/hr)	
			AGS	MGS	AM	PM	AM	PM
5/6/10	0630	49	2	0	0	0	5	20
	1400	75						
5/7/10	0630	49	2	0	0	0	0	0
	1400	82						
5/8/10	0630	62	1	0	0	0	30	25
	1400	76						
5/9/10	0630	55	4	0	0	25	20	15
	1100	65						
5/10/10	0630	47	2	0	20	20	20	25
	1300	64						

\*AGS=antelope ground squirrel, MGS=Mohave ground squirrel

### Third Sampling Term (Turbine corridor removed from further consideration; not trapped)

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**Grid 5****First Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS* A-B	MGS*	AM	PM	AM	PM
4/6/2010	0700	42	4-3	0	CLEAR	CLEAR	5-10	5-10
	1530	65						
4/7/2010	0700	40	0-7	0	CLEAR	CLEAR	0-5	0-5
	1500	71						
4/8/2010	0630	49	1-5	0	CLEAR	CLEAR	0-5	5-10
	1530	73						
4/9/2010	0630	50	0-3	0	CLEAR	CLEAR	0-5	10-15
	1500	75						
4/10/2010	0700	45	0-2	0	30%	20%	0-5	5-10
	1500	65						

**Second Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS A-B	MGS	AM	PM	AM	PM
5/17/2010	0700	59	1-3	0	100%	100%	5-10	10-20
	1530	67						
5/18/2010	0630	50	4-5	0	10%	20%	0-5	10-25
	1500	72						
5/19/2010	0630	56	3-5	0	CLEAR	CLEAR	5-10	15-30
	1400	81						
5/20/2010	0630	59	1-0	0	20%	CLEAR	10-20	15-35
	0930	63						
5/21/2010	0630	58	0-0	0	CLEAR	CLEAR	15-25	20-40
	1030	66						

**Third Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS B	MGS	AM	PM	AM	PM
7/11/2010	0600	73	4	0	50 %	20 %	5-10	5-10
	0845	90+						
7/12/2010	0600	71	8	0	10 %	10 %	0-5	5-10
	0845	90+						
7/13/2010	0600	68	9	0	0 %	0 %	10-15	5-10
	0915	90+						
7/14/2010	0600	68	4	0	0 %	0 %	0-5	0-5
	0915	90+						
7/15/2010	0600	78	8	0	0 %	0 %	0-5	0-5
	0830	90+						

\*AGS=antelope ground squirrel, MGS=Mohave ground squirrel

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**Grid 6****First Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS*	MGS*	AM	PM	AM	PM
4/6/2010	0700	42	3	0	CLEAR	CLEAR	5-10	5-10
	1530	65						
4/7/2010	0700	40	1	0	CLEAR	CLEAR	0-5	0-5
	1500	71						
4/8/2010	0630	49	1	0	CLEAR	CLEAR	0-5	5-10
	1530	73						
4/9/2010	0630	50	3	0	CLEAR	CLEAR	0-5	10-15
	1500	75						
4/10/2010	0700	45	2	0	30%	20%	0-5	5-10
	1500	65						

**Second Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS	MGS	AM	PM	AM	PM
5/17/2010	0700	59	4	0	100%	100%	5-10	10-20
	1530	67						
5/18/2010	0630	50	2	0	10%	20%	0-5	10-25
	1500	72						
5/19/2010	0630	56	1	0	CLEAR	CLEAR	5-10	15-30
	1400	81						
5/20/2010	0630	59	0	0	20%	CLEAR	10-20	15-35
	0930	63						
5/21/2010	0630	58	0	0	CLEAR	CLEAR	15-25	20-40
	1030	66						

**Third Sampling Term**

DATE	TIME	TEMP °F air	CAPTURES		Cloud Cover		Wind speed (Mi/hr)	
			AGS	MGS	AM	PM	AM	PM
7/11/2010	0600	73	6	0	50 %	20 %	5-10	5-10
	0845	90+						
7/12/2010	0600	71	21	0	10 %	10 %	0-5	5-10
	0845	90+						
7/13/2010	0600	68	25	0	0 %	0 %	10-15	5-10
	0915	90+						
7/14/2010	0600	68	17	0	0 %	0 %	0-5	0-5
	0915	90+						
7/15/2010	0600	78	13	0	0 %	0 %	0-5	0-5

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\*AGS=antelope ground squirrel, MGS=Mohave ground squirrel

## Tulare Grasshopper Mouse and Tehachapi Pocket Mouse Nocturnal Trapping

No Tulare grasshopper mice or Tehachapi pocket mice were captured during our surveys.

### Other Species

San Joaquin pocket mice (*Perognathus inornatus* ssp.) were captured at Grids 5, 6, 7 and 9. This species is also a state species of special concern, which does not confer any legal protections, but rather calls attention to a species that may be listed at some time in the future. Also captured were several grasshopper mice of the subspecies *O. t. pulcher*, Panamint kangaroo rat (*Dipodomys panamintinus*), Deer mice (*Peromyscus maniculatus*), Merriam's kangaroo rat, (*D. merriami*), desert woodrat (*Neotoma lepida*), and parasitic mouse (*Peromyscus californicus*). The following table shows survey dates and total number of captures of nocturnal sensitive small mammals.

### NOCTURNAL SENSITIVE SMALL MAMMAL CAPTURES

Survey Period	Tulare Grasshopper Mouse	Tehachapi Pocket Mouse	San Joaquin Pocket Mouse
<b>Grid 1</b> 5-8 May 2010	0	No habitat	0
<b>Grid 2</b> 5-8 May 2010	0	No habitat	0
<b>Grid 3</b> 2-5 May 2010	0	No habitat	0
<b>Grid 4</b> 7-10 May 2010	0	No habitat	0
<b>Grid 5</b> 18-21 May 2010	0	No habitat	1
<b>Grid 6</b> 18-21 May 2010	0	No habitat	4
<b>Grid 7</b> 20-23 July 2010	0	0	2
<b>Grid 8</b> 20-23 July 2010	0	0	0
<b>Grid 9</b> 20-23 July 2010	0	0	3

## REFERENCES AND LITERATURE CITED

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## Appendix 1

CALIFORNIA DEPARTMENT OF FISH AND GAME  
MOHAVE GROUND SQUIRREL SURVEY GUIDELINES  
(January 2003)

1. Visual surveys to determine Mohave ground squirrel activity and habitat quality shall be undertaken the period of 15 March through 15 April. All potential habitat on a project site shall be visually surveyed during daylight hours by a biologist who can readily identify the Mohave ground squirrel and the white-tailed antelope squirrel (*Ammospermophilus leucurus*).
2. If visual surveys do not reveal presence of the Mohave ground squirrel on the project site, standard small-mammal trapping grids shall be established in potential Mohave ground squirrel habitat. The number of grids will depend on the amount of potential habitat on the project site, as determined by the guidelines presented in paragraphs 4 and 5 of these guidelines.
3. For linear projects (for example, highways, pipelines, or electric transmission lines), each sampling grid shall consist of 100 Sherman live-traps (or equivalent; the minimum length of any trap is 12 inches) arranged in a rectangular pattern, 4 traps wide by 25 traps long, with traps spaced 35 meters apart along each of the four trap lines. At a minimum, one sampling grid of this type shall be established in each linear mile, or fraction thereof, of potential Mohave ground squirrel habitat along the project corridor.
4. For all other types of projects, one sampling grid consisting of 100 Sherman live-traps (or equivalent; the minimum length of any trap is 12 inches) shall be established for each 80 acres, or fraction thereof, of potential Mohave ground squirrel habitat on the project site. The traps shall be arranged in a 10 x 10 grid, with 35-meter spacing between traps.
5. Each sampling grid shall be trapped for a minimum five consecutive days, unless a Mohave ground squirrel is captured before the end of the five-day term on the grid or on another grid on the project site. If no Mohave ground squirrel is captured on a sampling grid on the project site in the first five-consecutive-day term, each sampling grid shall be sampled for a SECOND five-consecutive-day term. Trapping may be stopped before the end of the second term if a Mohave ground squirrel is captured on any sampling grid on the project site. If no Mohave ground squirrel is captured during the second five-consecutive-day term, each sampling grid shall be sampled for a THIRD five-consecutive -day term. The FIRST trapping term shall begin and be completed in the period of 15 March through 30 April. If a SECOND term is required, it shall begin at least two weeks after the end of the first term, but shall begin no earlier than 01 May, and shall be completed by 31 May. If a THIRD term is required, it shall begin at least two weeks after the end of the second term, but shall begin no earlier than 15 June, and shall be completed by 15 July. All trapping shall be conducted during appropriate weather conditions, avoiding periods of high wind, precipitation, and low temperatures (<50°F or 10°C).
6. For projects requiring two or more sampling grids, capture of a Mohave ground squirrel on any grid will establish presence of the species on the project site. Trapping may be stopped on all grids on the project site at that time. For linear projects, very large project sites, project sites characterized by fragmented or highly-heterogeneous habitats, or in other special circumstances, continued trapping may be necessary.
7. A maximum 100 traps shall be operated by each qualified biologist. Each trap shall be covered with a cardboard A-frame or equivalent non-metal shelter to provide shade. Trap and shelter orientation shall be on a north-south axis. All traps shall be opened within one hour of sunrise and may be closed beginning one hour before sunset. Traps shall be checked at least once every four hours to minimize heat stress to captured animals. When traps are open, temperature shall be measured at a location within the sampling grid, in the shade, and one foot (approx. 0.3 meters) above the ground at least once every hour. Traps shall be closed when the ambient air temperature at one foot above the ground in the shade exceeds 90°F (32°C). Trapping shall resume on the same day after the ambient temperature at one foot (approx. 0.3 meters) above the

ground in the shade falls to 90°F (32°C) and shall continue until one hour before sunset. Suggested baits are mixed grains, rolled oats, or bird seed, with a small amount of peanut butter.

8. A qualified biologist shall complete the Survey and Trapping Form, which is found on page 5 of these guidelines. This biologist, or the lead agency for the project, shall submit the completed form to the appropriate Department office (see page 4) with the biological report on the project site.
9. The Department may allow variation on these guidelines, with the advance written approval of the appropriate regional habitat conservation planning office (see page 4). Such variations could include biologically-appropriate modification of the trapping dates or changes in grid configuration that would enhance the probability of detecting Mohave ground squirrels. Any variation which concerns trapping or marking methods must be incorporated into the MOU or permit that authorizes the work.
10. If a survey conducted according to these guidelines results in no capture or observation of the Mohave ground squirrel on a project site, this is not necessarily evidence that the Mohave ground squirrel does not exist on the site or that the site is not actual or potential habitat of the species. However, in the circumstance of such a negative result, the Department will stipulate that the project site harbors no Mohave ground squirrels. This stipulation will expire one year from the ending date of the last trapping on the project site conducted according to these guidelines.

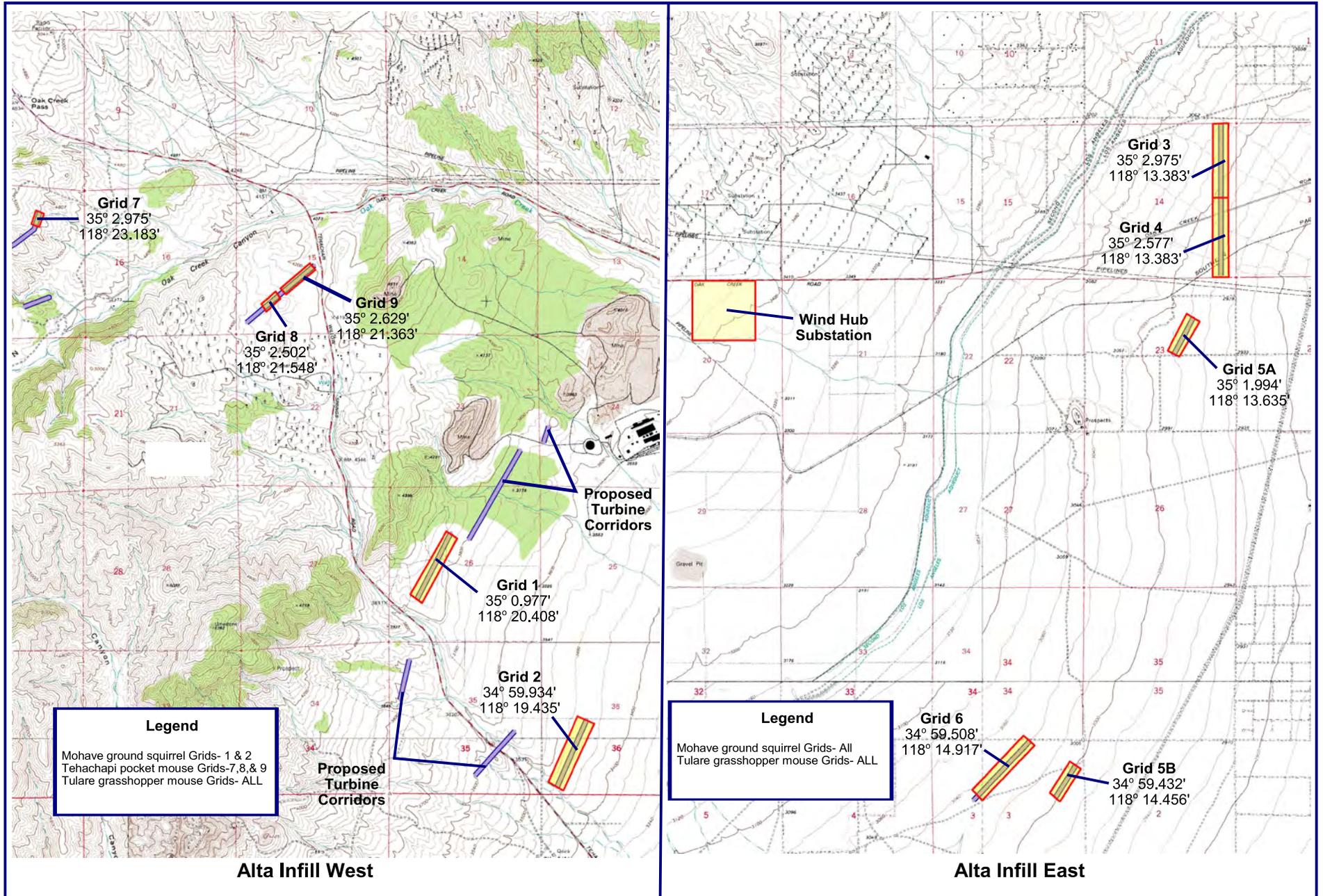


Figure 1. 2010 Alta Infill small mammal trapping grid locations.