

**HABITAT ASSESSMENT FOR
MOHAVE GROUND SQUIRREL**

**TENTATIVE PARCEL MAP NO. 18003
APN 3101-511-03**

SAN BERNARDINO COUNTY, CALIFORNIA
(USGS Shadow Mountains SE, CA Quad.; Township 5 North, Range 6 West, Section 19)

Owner/Applicant

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(213) 281-7175**

Prepared by:

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(760) 956-9212**

Project No: RCA#2007-33B

April 24, 2013

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EXECUTIVE SUMMARY

Tentative Parcel Map 18003 is 20-acres in size (gross) and is located north of State Highway 18 and Atlanthus Road in Section 19, Township 5 North, Range 6 West in San Bernardino County. The site consists of a relatively undisturbed creosote bush (*Larrea tridentata*) community typical of the area. The site is bordered on the east and west by several existing houses and State Highway 18 on the south beyond which are vacant lands. Vacant lands border the site on the north.

The property is located within the known distribution of the Mohave ground squirrel; therefore, a habitat assessment was performed for the species on April 23, 2013. The habitat assessment was performed by Ryan Young from approximately 0630 to 1030 hours. Mr. Young holds a Memorandum of Understanding (MOU) from California Department of Fish and Game (CDFG) for the species.

The site supports suitable habitat for the Mohave ground squirrel based on several criteria outlined in the following sections. Based on the results of the assessment, the proponent may be required to mitigate for potential impacts to the species during any future development activities. However, CDFG should be contacted for concurrence with this conclusion (Ms. Rebecca Jones, rjones@dfg.ca.gov).

1.0 PROJECT AND PROPERTY DESCRIPTION

The property consists of vacant land which currently supports an undisturbed creosote bush community, dominated by *Larrea tridentata*, burobush (*Franseria dumosa*), and ephedra (*Ephedra nevadensis*). A detailed discussion of other plants observed on the site is presented in Section 4.0.

The property is located at the northeast intersection of State Highway 18 and Atlanthus Street in San Bernardino County (Township 5 North, Range 6 West, Section 19) at an elevation ranging from about 3,295 to 3,335 feet (MSL). Soils consist of sandy loam with small gravels present. No water resources were observed on the site and the USGS Shadow Mountain SE Quadrangle (1955) does not show any blue-line channels on the site. No sensitive wildlife habitats, sensitive wildlife species, or wildlife corridors were associated with the site. Weather conditions during the April 23, 2013 survey consisted of winds of 0 to 5 mph, temperatures in the low 50's to low 70's (AM, °F) with about 5 percent cloud coverage. The site is surrounded by houses immediately to the east and west, and vacant lands to the north and south. The project map is provided below (Figure 1), and the USGS quadrangle map is provided in Figure 2. Figure 3 provides photographs of the site.

The proponent is proposing to sub-divide the property into four parcels consisting of 5-acres each (gross), with a remainder parcel of 10-acres. Figure 1 provides a depiction of the proposed parcel map.



TENTATIVE PARCEL MAP NO. 18003

SHEET 1 OF 1

OWNER / SUBDIVIDER

ABRAHAM ABRAMDA
10327 PANGLOSS AVENUE
DOWNEY, CA 90241

PREPARED BY

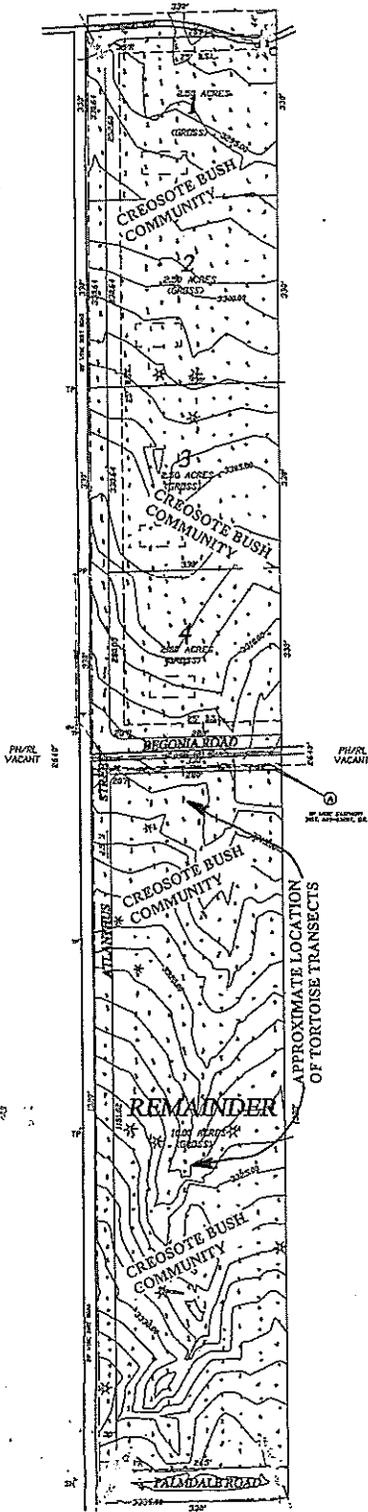
CREATIVE BOUNDARIES
848 W. 9TH ST. STE "K"
UPLAND, CA 91706
(909) 985-7367

BEING A PORTION OF THE EAST 1/2 OF SECTION 19, TOWNSHIP 5 NORTH RANGE 6 WEST,
IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

CREATIVE BOUNDARIES

MAY, 2006

SOUTH STREET



UTILITIES

ELECTRICITY --- SOUTHERN CAL. EDISON
10000 505-1005
GAS --- SOUTHWEST GAS
13471 MARIPOSA ROAD
VICTORVILLE, CA 92392
(760) 240-9321
WATER --- DV WELL WATER
SEWAGE --- SEPTIC TANK
TELEPHONE --- VERIZON
(800) 483-1000

NOTES

1. 2500 ACRES TOTAL, 4 NUMBERED LOTS PLUS REMAINDER DENSITY 1 LOT/2500 ACRES.
2. EXISTING AND PROPOSED ZONING IS "PH/RL"
3. PROPOSED USE IS FOR SINGLE FAMILY USE
4. ALL EXISTING STREETS ARE DIRT ROADS
5. NO NEW STREETS/ ROADS WILL BE GRADED
6. APN NO. 3101-511-02
7. B.S.L. INDICATES BUILDING SETBACK LINE
8. AVERAGE SLOPE OF BOTH FEASIBLE ACCESS ROUTE AND FEASIBLE BUILDING SITE DOES NOT EXCEED TEN PERCENT (10%) AND NO GRADING IS PROPOSED.
9. NO REGULATED PLANTS OR TREES WILL BE REMOVED OR TRANSPLANTED AND NO AREA WITHIN THE DRIP LINE OF SUCH PLANTS OR TREES WILL NOT BE DISTURBED BY THIS PROPOSED PROJECT.

LEGEND

- * GUY WIRE
- DV GUY WIRE
- ▲ SIGN
- PP POWER POLE
- OHE OVERHEAD ELECTRIC
- BSL BUILDING SETBACK LINE

EASEMENTS

1. 10' WIDE EASEMENT TO SOUTHERN CALIFORNIA EDISON COMPANY FOR PUBLIC UTILITIES PER DOCUMENT RECORDED MARCH 29, 1993 AS INSTRUMENT NO. 89-85007 OF OFFICIAL RECORDS.



VICINITY MAP
NO SCALE

INDICATES POSSIBLE BUILDING PAD LOCATION

APN 3101-511-02
T.P.M. NO. 18003

OWNER / SUBDIVIDER
ABRAHAM ABRAMDA
10327 PANGLOSS AVENUE
DOWNEY, CA 90241

PREPARED BY
CREATIVE BOUNDARIES
848 W. 9TH ST. STE "K"
UPLAND, CA 91706
(909) 985-7367

MAY, 2006

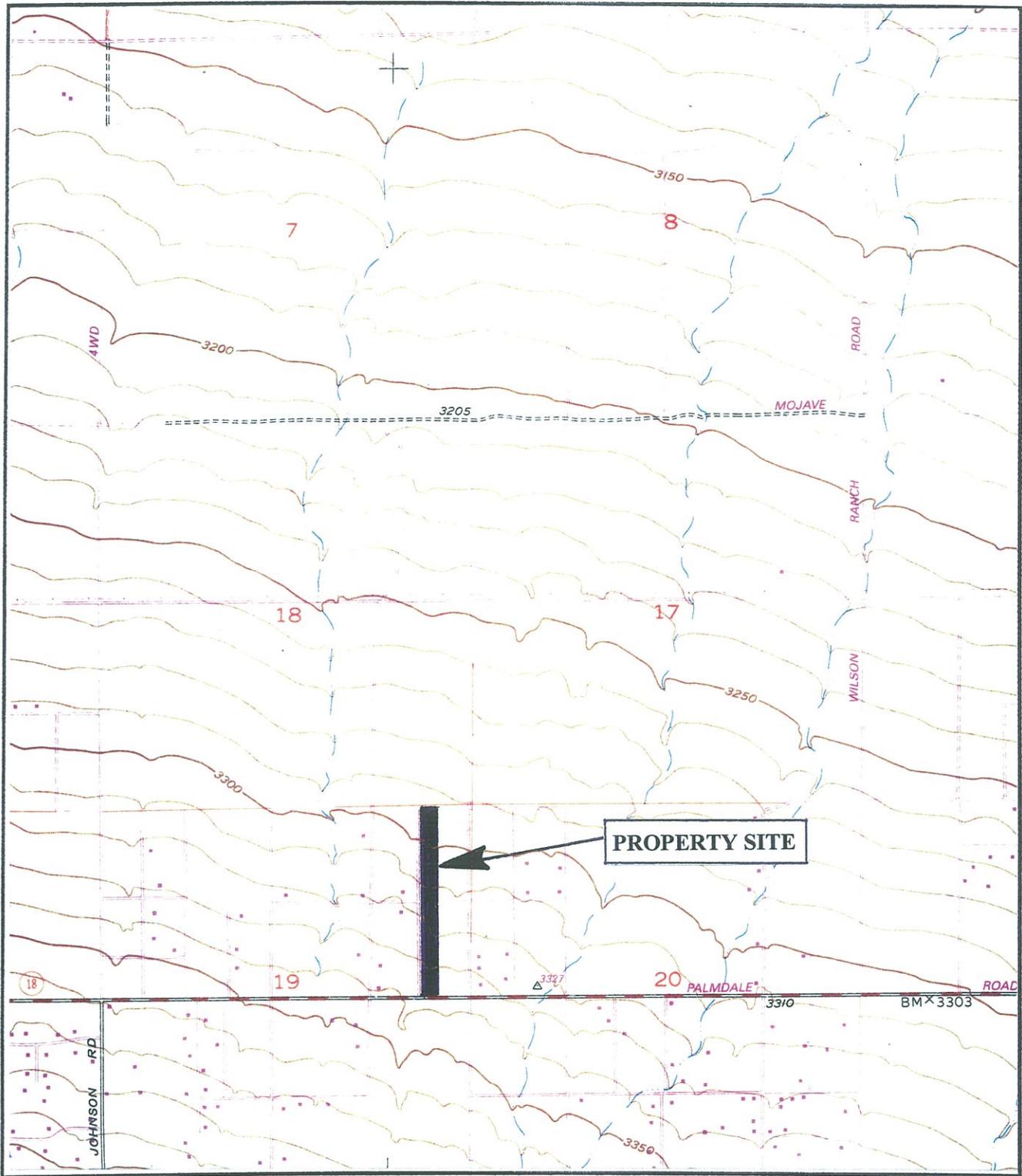


FIGURE 2
TOPOGRAPHIC MAP
 (TPM 18003; APN 0630-062-17)
 (Source: USGS Shadow Mountains SE, CA Quad., 1955)



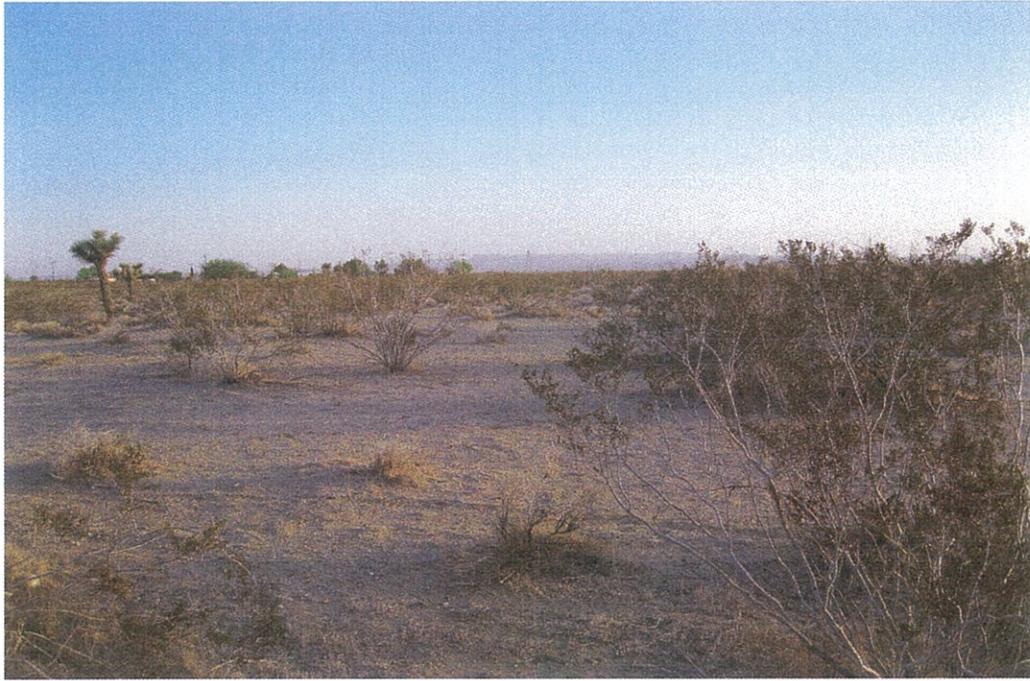


VIEW FROM NORTHERN BOUNDARY LOOKING SOUTH

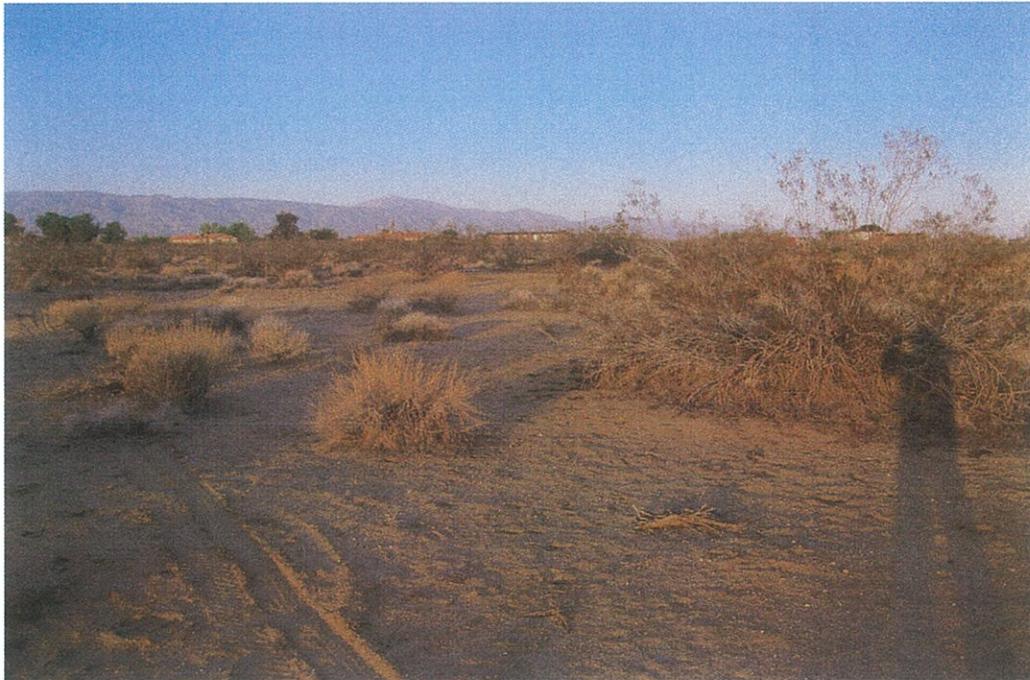


VIEW FROM WESTERN BOUNDARY LOOKING EAST

FIGURE 3
Photographs of Site
(TPN 18003, APN 3101-511-03)



VIEW FROM SOUTHERN BOUNDARY LOOKING NORTH



VIEW FROM EASTERN BOUNDARY LOOKING WEST

FIGURE 3, cont.
Photographs of Site
(TPN 18003, APN 3101-511-03)

2.0 LITERATURE AND RECORDS REVIEW FOR MOHAVE GROUND SQUIRREL

As part of the environmental process, California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) data sources were reviewed prior to initiation of field surveys to determine if populations of the Mohave ground squirrel have been documented on the site or in the area surrounding the property. Based on the literature review and evaluation of the CNDDDB database for the Shadow Mountains SE quadrangle, it was determined that the site is located within the general distribution of the Mohave ground squirrel.

CNDDDB records indicate that the closest known occurrence of the species is about six mile northwest of the property (CNDDDB, 2013). This occurrence (#46) was a male squirrel which was collected in 1972. The second closest observation (Occurrence #372) is about 5.5 miles east of the site and was observed in 2011. An additional observation was made in 2005 of an individual (Occurrence #258) about eight miles east of the property.

The species is known to occur in the western Mojave Desert in portions of four counties including Inyo, Kern, San Bernardino, and Los Angeles (Clark, D 1991). The distribution of the Mohave ground squirrel is quite limited as compared to the distribution of other ground squirrel species (Hall, R. 1981 in Clark, D 1991). The Mohave ground squirrel is found in several habitat types throughout the Mojave Desert including creosote bush scrub, saltbush scrub, and Joshua tree woodland communities. Degradation and destruction of the species' habitat and isolation of individual populations appear to be the primary factors in the species' decline (Clark, D. 1991).

3.0 METHODOLOGY

The habitat assessment was performed on April 23, 2013 by Ryan Young. As per CDFW requirements, Mr. Young evaluated the vegetation on the site as well as in the surrounding area to determine if the dominant plant community in the area was representative of those associated with the Mohave ground squirrel. In addition to the field investigations, a background database search was performed using the CNDDDB Rarefind 3 along with supplemental references for the species, including the CDFW Mohave ground squirrel survey Guidelines.

Field investigations included walking meandering transects throughout the site during which a vegetation list was compiled, and the site evaluated for the presence of plants that are frequently utilized by the squirrel for food. All transects were walked at a pace that allowed careful observations along the transect routes for the presence of any small mammal burrows. Additional field notes were recorded regarding native plant assemblages, wildlife sign, and human affects in order to determine the presence or absence of suitable Mohave ground squirrel habitat. Surveys were performed on the site and in the surrounding area from about 0630 to about 1030 hours. Temperatures during the April survey were in the low 50's (AM, °F) to low 70's (PM, °F), wind speeds of about 0 to 5 mph (mainly from the north), and cloud coverage of about 5 percent. No precipitation was recorded during the survey.

Limitations:

The results of the habitat assessment and the results presented in this report do not constitute authorization for the "take" of the Mohave ground squirrel or any other listed or sensitive wildlife species. The authorization to impact the species can only be granted by CDFW. If Mohave ground squirrels are observed during future project activities, the activities should cease immediately and CDFW should be contacted to discuss mitigation measures which may be required for the species.

4.0 GENERAL BIOLOGICAL SURVEY RESULTS

The site currently supports native vegetation consisting of a creosote bush (*Larrea tridentata*) community. In addition to creosote bush, dominant perennials included burrobrush (*Franseria dumosa*), cheesebush (*Hymenoclea salsola*), and ephedra (*Ephedra nevadensis*) (Figure 3). Other perennials included Joshua tree (*Yucca brevifolia*), cotton-thorn (*Tetradymia spinosa*), winterfat (*Kraschenikovia lanata*), spiny hop-sage (*Grayia spinosa*), cholla (*Opuntia echinocarpa*), and paperbag plant (*Salazaria mexicana*). Annuals were composed primarily of erodium (*Erodium texanum*), schismus (*Schismus barbatus*), buckwheat (*Eriogonum fasciculatum*), fiddleneck (*Amsinckia tessellata*), and bunchgrass (*Phleum* sp.). Table 1 provides a compendium of plants observed on the property (Appendix A).

Only a few wildlife species were identified during the habitat assessment for the Mohave ground squirrel and the survey for the desert tortoise conducted on April 23, 2013. Birds observed were limited to mourning doves (*Zenaida macroura*), ravens (*Corvus corax*), song sparrow (*Melospiza melodia*) and sage sparrow (*Amphispiza belli*). A few side-blotched lizards (*Uta stansburiana*) and western whiptail lizards (*Cnemidophorus tigris*) were seen during the surveys, and are relatively common in the area. No mammals were identified but small mammals such as antelope ground squirrels (*Ammospermophilus leucurus*), desert cottontail rabbits (*Sylvilagus auduboni*), and Merriam's kangaroo rats (*Dipodomys merriami*), may occur on the site. No wildlife corridors were identified on the site or in the immediate surrounding area, and no breeding activities were observed among any of the wildlife species. Table 2 (Appendix A) provides a compendium of wildlife species observed on the site and other species known to occur in the region.

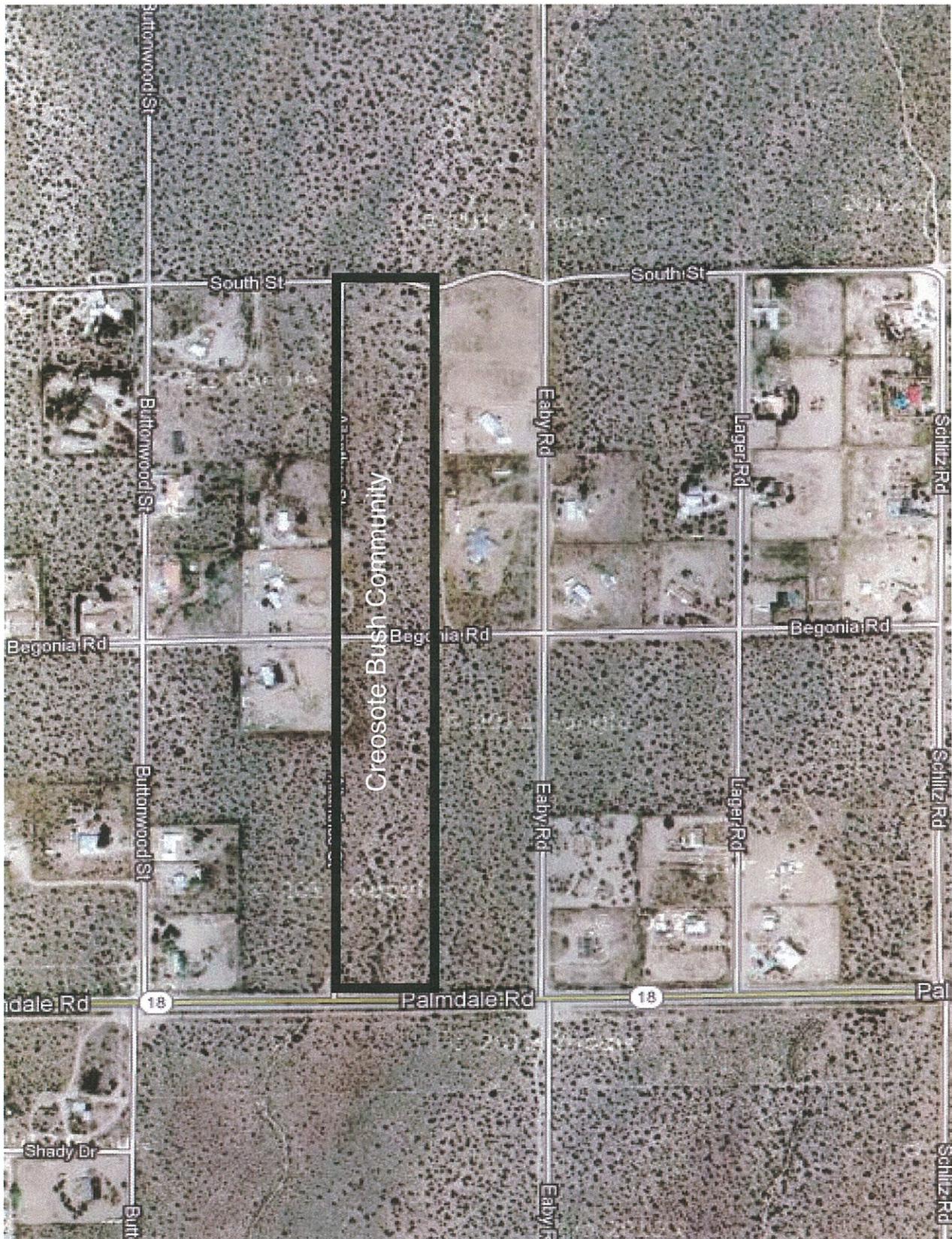


FIGURE 4
Biological Resources Map
(TPN 18003, APN 3101-511-03)

5.0 RESULTS – MOHAVE GROUND SQUIRREL

The site supports suitable habitat for the Mohave ground squirrel based on the habitat assessment conducted on the site on April 23, 2013. This conclusion was based on the following criteria. (Note: The local CDFG representative, Ms. Rebecca Jones, should be contacted for concurrence with this conclusion. rjones@dfg.ca.gov)

1. Site supports suitable habitat for the species;
2. There is connectivity between the site and surrounding habitat;
3. Numerous small mammal burrows were identified which may be used by the species; and
4. The species has been documented in the surrounding area (CNDDDB, 2013).

Regardless of the results of the habitat assessment, Mohave ground squirrels cannot be taken under State law. The survey report and any mitigation included do not constitute authorization for incidental take of the species. If the species is observed during future site activities, all on-site activities should cease immediately and CDFW should be contacted. The Mohave ground squirrel has been listed by the California Department of Fish and Wildlife as a threatened species, thereby giving the animal protection under the California Endangered Species Act.

6.0 IMPACTS AND RECOMMENDATIONS

Future development activities could have a direct or indirect impact on the species and/or potential Mohave ground squirrel habitat. The site does support suitable habitat for the species and populations of the species have been documented in the region. Therefore, CDFW should be contacted prior to the start of any future site development to discuss potential mitigation measures which may be required, including, but not limited to application for an Incidental Take Permit (2081 permit) from CDFW or providing mitigation fees in lieu of acquiring a 2081 permit.

If the site is modified by grading or otherwise disturbed prior to project approval and prior to acquisition of the Incidental Take Permit, which results in the loss of suitable habitat for the species, CDFW and the County Building and Safety Department should be notified. Such action prior to project approval will violate the State endangered species law and may be considered grounds for denial of the project. Mitigation and restoration plans will also be required under such actions.

7.0 PROPOSED MITIGATION MEASURES

The site supports suitable habitat for the Mohave ground squirrel; therefore, mitigation measures and/or an Incidental Take Permit may be required. CDFW should be contacted prior to the start of any future development activities to initiate consultations as required by State law.

8.0 REFERENCES

- California Department of Fish and Game
1990 California's Wildlife, Volumes 1, 2, and 3. Sacramento.
- California Department of Fish and Game
2013 Natural Diversity Data Base. Sacramento
- Holing, Dwight
1998 California Wild Lands. Chronical Books. San Francisco, CA. 211 pp.
- Holland, Robert F.
1986 Preliminary Description of the Terrestrial Natural Communities of California. Prepared for the California Natural Diversity Data Base. California Department of Fish and Game. Sacramento, California. 160 pp.
- Johnson, H.
1976 vegetation and Plant Communities of Southern California Deserts- a functional view. In Symposium proceedings: Plant communities of Southern California. June Latting, editor. California Native Plant Society, Spec. No. 2 Berkeley, CA.

TABLES

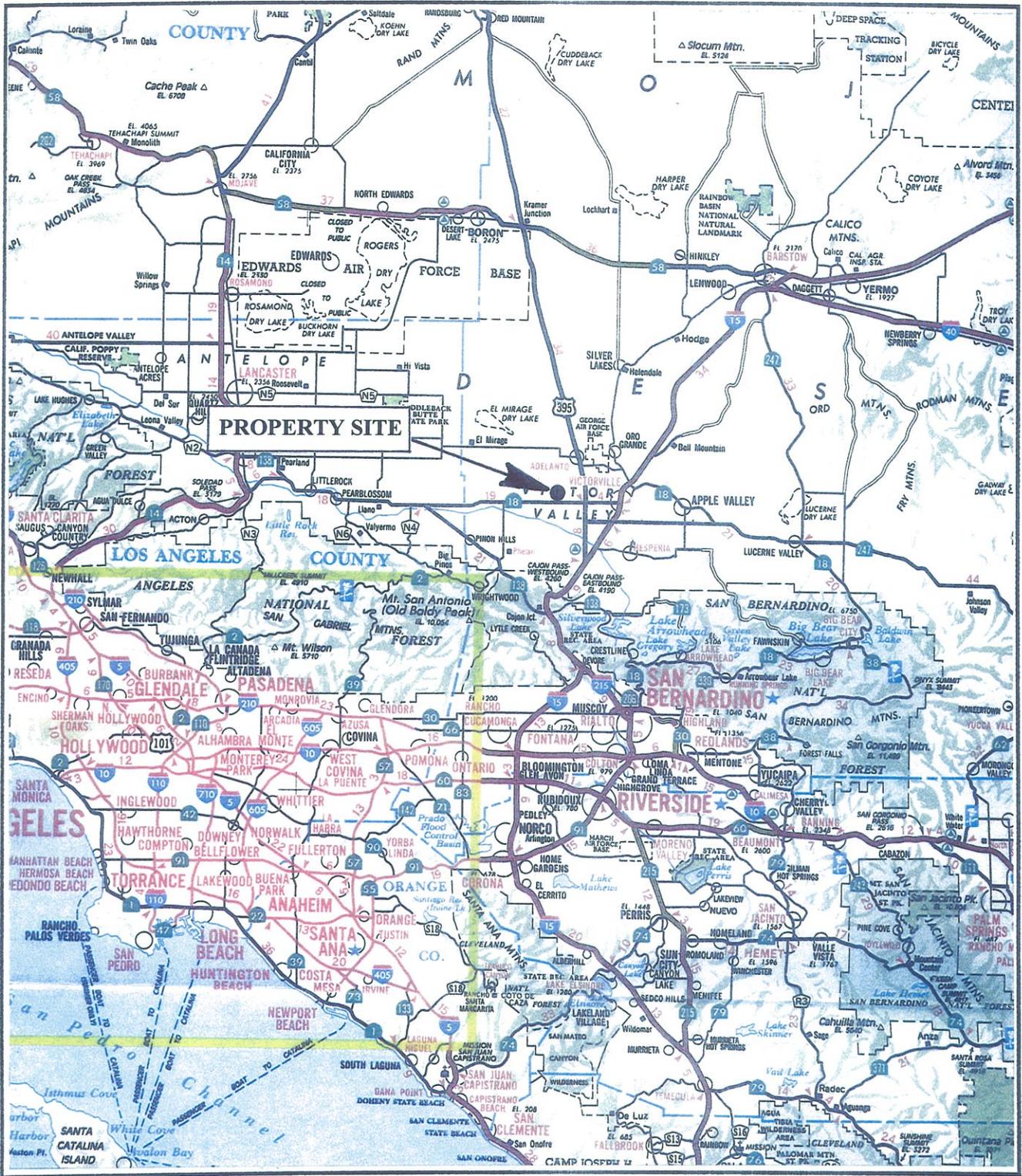
Mohave Ground Squirrel Occurrence Table

Mohave ground squirrel occurrences within approximately ten miles of the site based on California Natural Diversity Data Base (20123).

Name	Listing Status	Habitat Requirements	Presence/Absence	Comments
Mohave ground squirrel (<i>Spermophilus mohavensis</i>)	Fed: None State: T	Desert scrub	Site does supports suitable habitat for the species. Native vegetation evenly distributed throughout the site.	A. Occurrence #46; six miles northwest of site. B. Occurrence #372; 5.5 miles east of site. C. Occurrence #258; eight miles east of site.

FIGURES

**Vicinity Map
Mohave Ground Squirrel Distribution Map**



VICINITY MAP

(TPM 18003; APN 0630-062-17)
 (Source: ACSC Map Source, 2013)



Southern Range of the Mohave Ground Squirrel

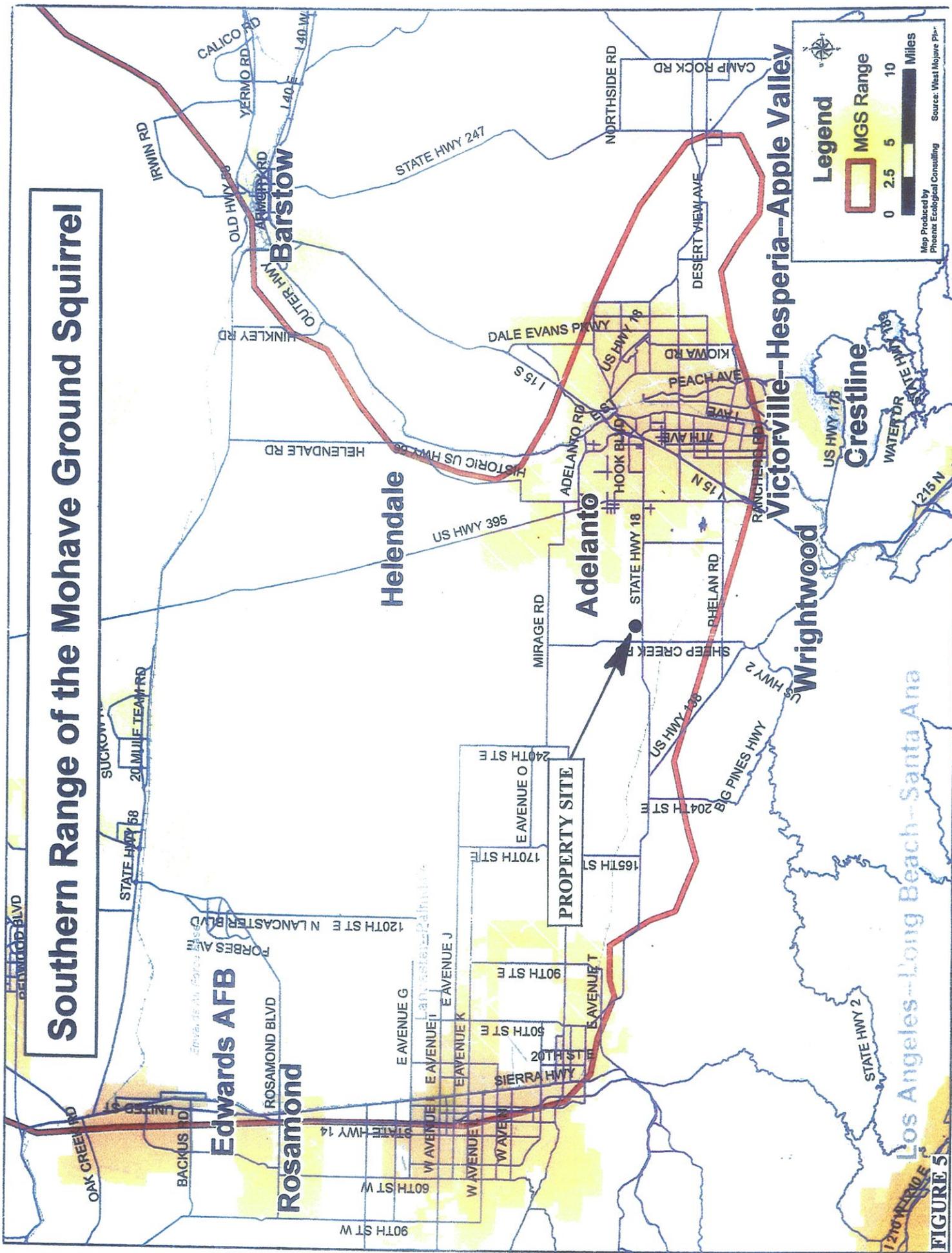


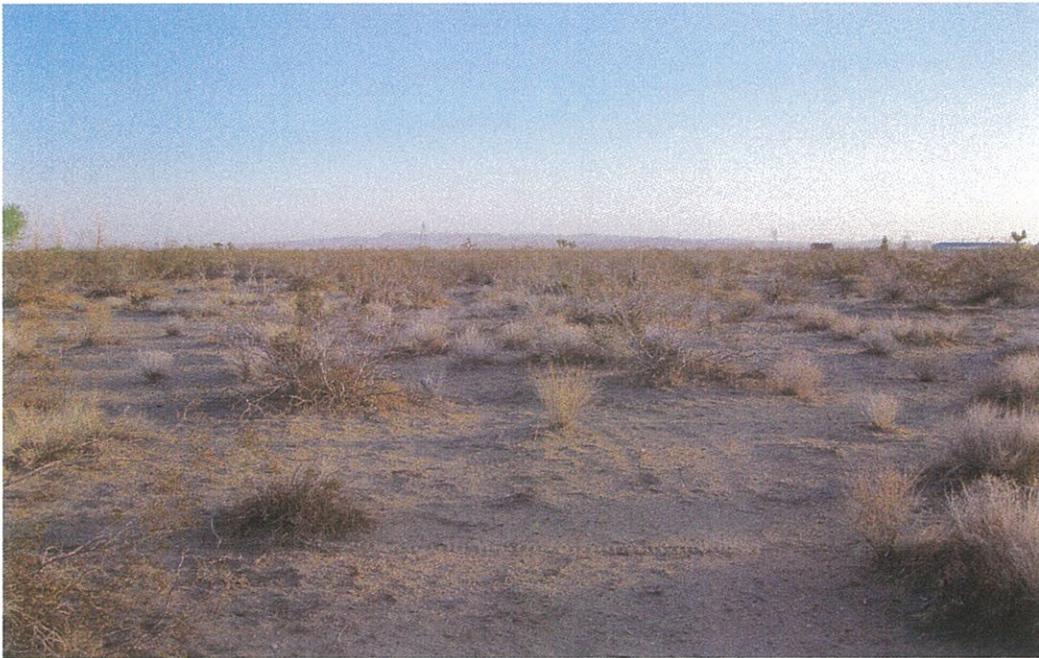
FIGURE 5

Map Produced by
Phoenix Ecological Consulting
Source: West Mojave Plan

SITE PHOTOGRAPHS



CENTER OF PROPERTY LOOKING EAST

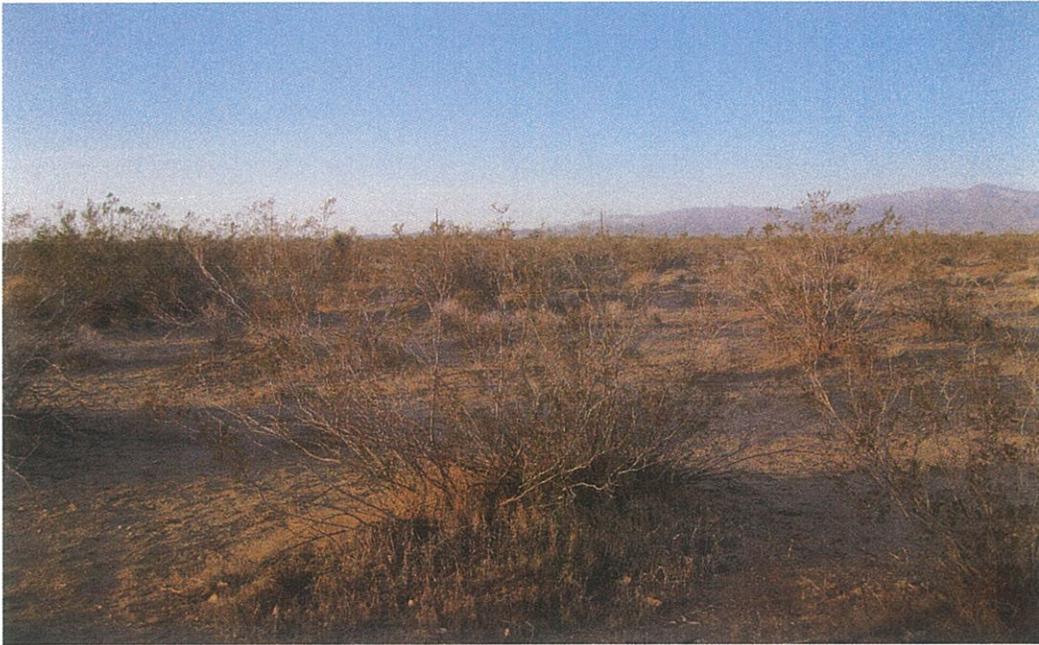


CENTER OF PROPERTY LOOKING NORTH

Site Photographs
(TPN 18003, APN 3101-511-03)



CENTER OF PROPERTY LOOKING WEST



CENTER OF PROPERTY LOOKING SOUTH

Site Photographs
(TPN 18003, APN 3101-511-03)

APPENDIX A

Flora and Fauna Compendia

Table 1 - Plants observed on the site.

Common Name	Scientific Name	Location
Erodium	<i>Erodium texanum</i>	On-site and off-site
Schismus	<i>Schismus barbatus</i>	“
Buckwheat	<i>E. fasciculatum</i>	“
Brome grass	<i>Bromus sp.</i>	“
Fiddleneck	<i>Amsinckia tessellata</i>	“
Rabbitbrush	<i>Chrysothanus depressus</i>	“
Creosote bush	<i>Larrea tridentata</i>	“
Burrobush	<i>Franseria dumosa</i>	“
Cheesebush	<i>Hymenoclea salsola</i>	“
Ephedra	<i>Ephedra nevadensis</i>	“
Joshua tree	<i>Yucca brevifolia</i>	“
Cotton-thorn	<i>Tetradymia spinosa</i>	“
Cholla	<i>Opuntia echinocarpa</i>	“
Winterfat	<i>Kraschenikovia lanata</i>	“
Spiny hop-sage	<i>Grayia spinosa</i>	“
Paperbag plant	<i>Salazaria mexicana</i>	“
Bunchgrass	<i>Phleum sp.</i>	“

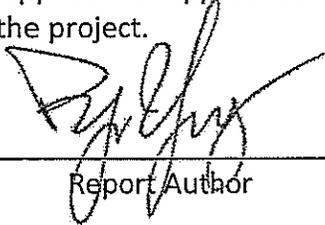
Table 2 - Wildlife observed on the site and those species expected to occur in surrounding area.

Common Name	Scientific Name	Location
Common raven	<i>Corvus corax</i>	Observed on-site
Sage sparrow	<i>Amphispiza belli</i>	“
Mourning dove	<i>Zenaida macroura</i>	“
Western kingbird	<i>Tyrannus verticalis</i>	“
Western whiptail lizard	<i>Cnemidophorus tigris</i>	“
Side-blotched lizard	<i>Uta stansburiana</i>	“
Antelope ground squirrel	<i>Ammospermophilus leucurus</i>	“
Desert spiny lizard	<i>Sceloporus magister</i>	May occur on site.
California ground squirrel	<i>Spermophilus beecheyi</i>	“
Coyote	<i>Canis latrans</i>	“
Merriam’s kangaroo rat	<i>Dipodomys mohavensis</i>	“

Note: The above Tables are not comprehensive lists of every plant or animal species which may occur in the area, but are a list of those common species which have been identified on the site or in the region by biologists from RCA Associates, LLC, or which are common species in the region.

Certification:

I hereby certify that the statements furnished above and in the attached exhibits present the data and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or applicant's representative and that I have no financial interest in the project.

Date: April 23, 2013 Signed: 
Report Author

Field Work Performed By: 