

# **GENERAL BIOLOGICAL RESOURCES ASSESSMENT**

**TENTATIVE PARCEL MAP NO.19401  
APN 3068-171-07**

**SAN BERNARDINO COUNTY, CALIFORNIA**  
(USGS Mescal Creek, CA Quad.; Township 4 North, Range 7 West, Section 7)

*Prepared for:*

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Project No: RCA#2012-80  
Report Prepared by Randall C. Arnold, Jr.**

**December 18, 2012**

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## EXECUTIVE SUMMARY

The proponent is requesting approval of a parcel map for a 35.95-acre property located at the northeast corner of Rancho Road and Crystalair Road in San Bernardino County (Township 4 North, Range 7 West, Section 7). The site supports a mixed shrub community dominated by burrobush (*Franseria dumosa*), Joshua tree (*Yucca brevifolia*), California juniper (*Juniperus californica*), ephedra (*Ephedra nevadensis*), lycium (*Lycium andersonii*), and rabbitbrush (*Chrysothamnus nauseosus*). No sensitive wildlife species were observed during the October 31, 2012 surveys. In addition, no desert tortoises were seen during the protocol survey (See Appendix B for copy of tortoise report.). A habitat assessment was also performed for the Mohave ground squirrel and a copy of the report is provided in Appendix C.

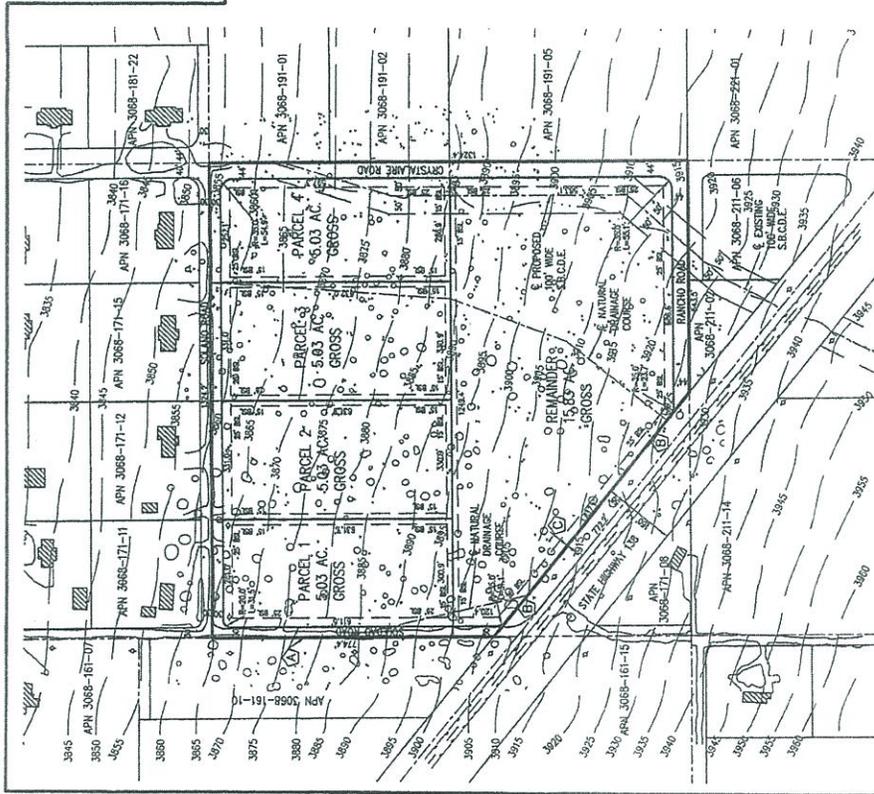
No sensitive habitats (i.e., blueline channels, wetlands, etc.) are depicted on the USGS Mescal Creek quadrangle; although, a few desert washes bisect the site in a north-south direction. No definitive wildlife movement corridors were noted on the property or in adjacent areas. There are between 150 to 200 Joshua trees present on the site and some of the trees may need to be transplanted prior to future site development activities.

## 1.0 PROJECT AND PROPERTY DESCRIPTION

The proponent is requesting approval of a parcel map (TPM 19401) for a 35.95-acre site (East half of the SE ¼ of the NW ¼ of Section 7, Township 4 North, Range 7 West, of the SBM, State of California) located in San Bernardino County. The property would be subdivided into four parcels (5.03 acres each) plus a remainder parcel of 15.83 acres (Figure 1). The property is located at the northwest corner of Rancho Road and Crystallaire Road at an elevation ranging from 3,840 to 3,920 feet (MSL) with a slight slope to the north (Figures 1, 2, 3, and 4). General biological surveys were conducted on the property on October 31, 2012 in conjunction with desert tortoise surveys during which data on the existing biological conditions was recorded.

Soils consisted of sandy loam with numerous small gravels and small to large rocks. The site is bordered on the north by existing single-family dwellings and on the south by State Highway 138 (Figure 4). Vacant lands border the site on the east and west. The USGS Mescal Creek Quadrangle does not show any blue-line channels on the site; although a few small desert washes do bisect the site in a north-south direction. No wildlife corridors bisect the property, and no sensitive wildlife species were observed during the general biological surveys conducted on October 31, 2012. (Note: A focused survey report has been prepared for the desert tortoise and a habitat assessment report has been prepared for the Mohave ground squirrel and are provided in Appendices B and C.). Weather conditions during the October 31, 2012 survey consisted of winds of 0 to 5 mph, temperatures in the low 50's (°F) to mid-60's (°F) (AM) with cloudy skies.

The site is undisturbed and supports a mixed desert scrub community and is dominated by burrobush (*Franseria dumosa*), Joshua tree (*Yucca brevifolia*), California juniper (*Juniperus californica*), ephedra (*Ephedra nevadensis*), lycium (*lycium andersoni*), and rabbitbrush (*Chrysothamnus nauseosus*) (Figure 4). Common annuals included buckwheat (*Eriogonum fasciculatum*), brome grasses (*Bromus* sp.), ricegrass (*Oryzopsis hymernoides*), and schismus (*Schismus barbatus*). See Section 4.0 for a detailed discussion of the biological resources.



OFFICIAL USE ONLY

**PUBLIC UTILITIES**

**ELECTRICITY :** SOUTHERN CALIFORNIA EDISON  
 1000 WILSON BLVD  
 VICTORVILLE, CA 92392  
 (760) 241-3805

**GAS :** INDIVIDUAL PROPANE

**WATER :** PHELAN PINNACLES HILLS C.S.D.  
 P.O. BOX 20949  
 JAYHIA, CA 92371  
 (760) 868-812

**SEWER :** SEPTIC TANK

**ZONING & LAND USE**

**PRESENT ON SITE :** PH/R/L VACANT

**PROPOSED ON SITE :** PH/R/L FUTURE SINGLE FAMILY RES.

**NORTH :** PH/R/L SINGLE FAMILY RES.

**SOUTH :** PH/R/L VACANT

**EAST :** PH/IN & PH/RS-1 VACANT

**WEST :** PH/R/L VACANT

**NOTES**

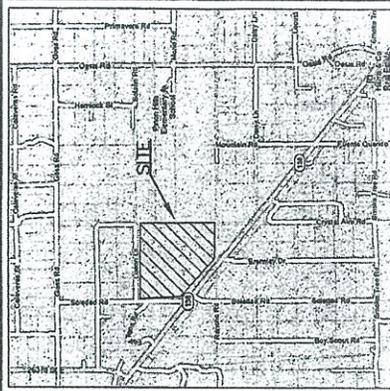
- 0 L.F. NEW STREETS
- NO GRADING IS PROPOSED AT THIS TIME.
- 4 NUMBERED LOTS AND A REMAINDER.
- 35.95 AC. GROSS AREA BEING DIVIDED.
- APPROX. SCOPE OF BOTH FEASIBLE ACCESS ROUTES AND FEASIBLE BUILDING SITES DOES NOT EXCEED TEN PERCENT (10%).
- NO STRUCTURES EXIST WITHIN 15 FEET OF THE PROPERTY LINES. NO STRUCTURES EXIST ON THIS SITE.
- CONTOUR INTERVAL IS 5 FEET.

☞ INDICATES JOSHUA TREE

S.B.C.D.E. INDICATES SAN BERNARDINO COUNTY DRAINAGE EASEMENT

**EASEMENTS**

- (A) AN EASEMENT IN FAVOR OF THE COUNTY OF SAN BERNARDINO FOR WATER PIPELINES AND APPURTENANCES, COMMUNICATION CABLES AND UTILITIES, AS SHOWN ON RECORD MAP 82-458207, RECORDED FEBRUARY 20, 1982 AS DOCUMENT 82-458207 OFFICIAL RECORDS.
- (B) EASEMENT IN THE FAVOR OF THE STATE OF CALIFORNIA FOR THE ROAD TO THE WESTERN RECORDS OFFICE AND MAINTENANCE OF STATE HIGHWAY AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 26, 1934 IN BOOK 64, PAGE 315 OF OFFICIAL RECORDS.
- (C) AN EASEMENT IN FAVOR OF CALIFORNIA ELECTRIC POWER COMPANY FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JANUARY 21, 1937 IN BOOK 418, PAGE 382 OF OFFICIAL RECORDS.



VICINITY MAP  
 NOT TO SCALE

A PORTION OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 7, T4N, R7W, S8M., COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

**TENTATIVE PARCEL MAP  
 NO. 19401**

A.P.N. 3068-171-07

OWNER / APPLICANT

INDIGILAS WAKONIN IN  
 TRUST FOR  
 U.S.A. INC.  
 2960 WILSON BLVD #234  
 VICTORVILLE, CA 92392  
 (760) 235-8949

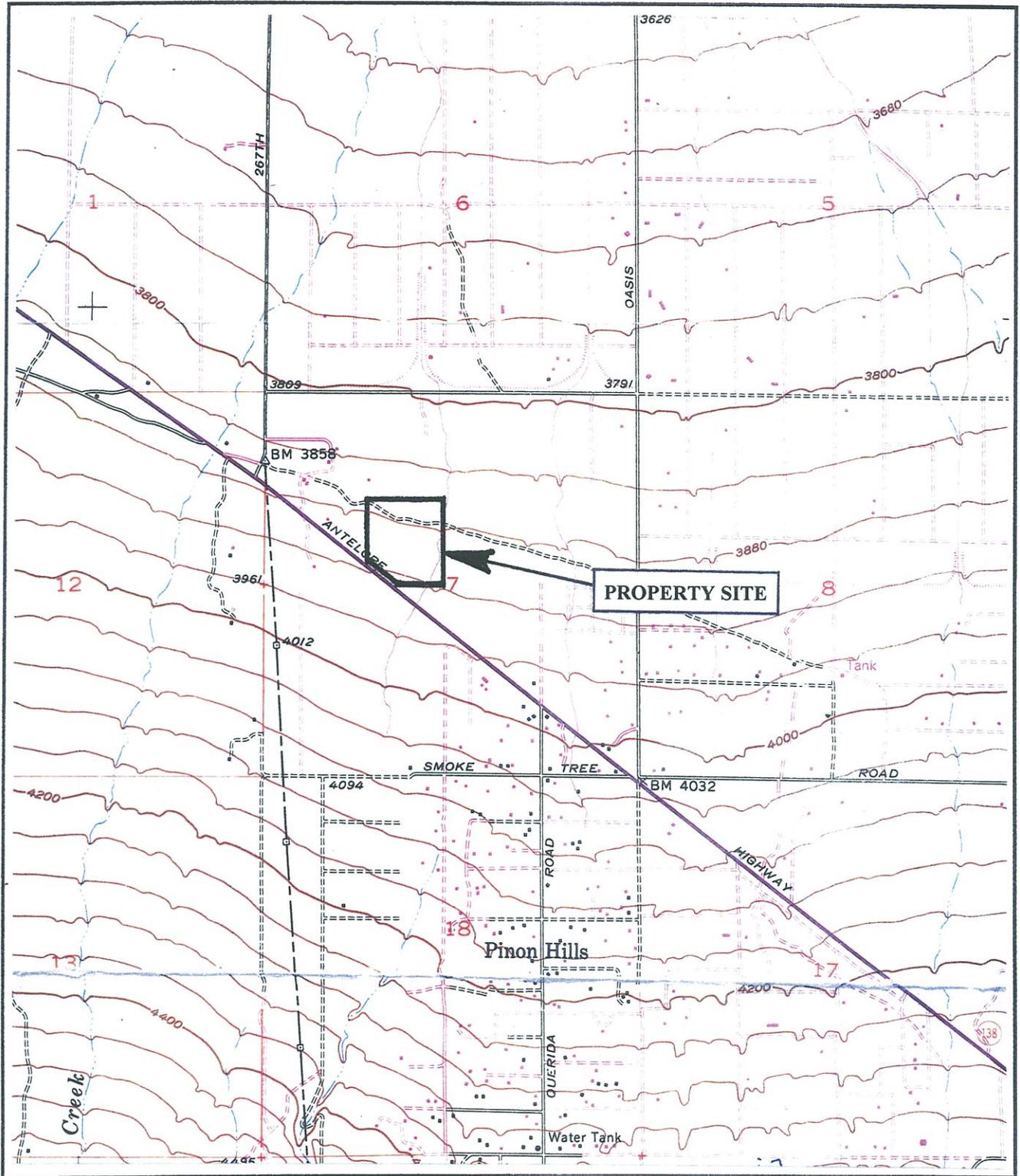
PREPARED: JULY, 2012  
 REVISED:



**CUBIT  
 ENGINEERING  
 INCORPORATED**  
 16490 WALNUT ST.  
 HESPERIA, CA 92345  
 (760) 244-7277  
 cubitengineering.com

PH00700012

**FIGURE 1**



**FIGURE 2**  
**PROPERTY LOCATION**  
 N.T.S.  
 (Source: Mescal Creek, CA Quad., 1956)





**VIEW FROM SOUTHEAST CORNER LOOKING NORTHWEST**



**VIEW FROM NORTHEAST CORNER LOOKING SOUTHWEST**

**FIGURE 3**  
**(TPM 19401, APN 3068-171-07)**



**VIEW FROM SOUTHWEST CORNER LOOKING NORTHEAST**



**VIEW FROM NORTHWEST CORNER LOOKING SOUTHEAST**

**FIGURE 3, cont.  
(TPM 19401, APN 3068-171-07)**

## 2.0 LITERATURE/RECORD REVIEW – SENSITIVE SPECIES

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 to determine if any listed and/or sensitive species have been documented in the area surrounding the site. The Federal Endangered Species Act provides protection for species of fish, wildlife, and plants that are listed by the US Government as threatened or endangered in the U.S., and the Act outlines procedures for Federal agencies to follow when evaluating projects which may jeopardize any listed species. In addition, The California Endangered Species Act (CESA) provides protection to those species which are deemed to be threatened with a significant decline or extinction within California, and the CESA provides CDFG with the responsibility of evaluating projects which may effect sensitive species.

Based on a literature review, a search of USFWS and CDFG data bases, and a search of the California Natural Diversity Database (CNDDDB), it was determined that there are five sensitive wildlife species and two sensitive plant species that have been documented in the surrounding region within approximately six miles of the site (CNDDDB, 2012). These species include desert tortoise (*Gopherus agassizii*), Mohave ground squirrel (*Spermophilus mohavensis*), coast horned lizard (*Phrynosoma blainvillii*), Pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*), LecOnte's thrasher (*Toxostoma lecontei*), short-jointed beavertail cactus (*Opuntia basilaris var. brachyclada*), and white pygmy-poppy (*Canbya candida*). Scientific nomenclature for this report is based on the following references: Hickman (1993), Munz (1974), Stebbins (2003), Sibley (2000) and Whitaker (1980). Table 1 (Appendix A) provides a detailed summary of the sensitive species listed above.

Following the data review, general biological surveys were performed on the site on October 31, 2012 during which the biological resources on the site and in the surrounding areas were documented by Randall C. Arnold, Jr. and Patricia Moore (biologists from RCA Associates, LLC) from 0700 to 1730 hours. As part of the surveys, the project site and the adjoining lands were evaluated for the presence of native habitats which could potentially support populations of sensitive species.

### **3.0 METHODOLOGIES**

#### **General Vegetation and Wildlife**

General biological surveys were conducted on October 31, 2012 during which Randall C. Arnold, Jr. and Patricia Moore from RCA Associates, LLC walked transects throughout the site and in adjacent areas to the east (zone of influence) from 0700 to 1730 hours. (Note: The general surveys were conducted in conjunction with the focused surveys for the desert tortoise.). During the surveys, data was collected on the plant species present on the site and in the immediate surrounding area and the wildlife observed. Only a few annual plants were in bloom, although, most of the annuals typical of the area were identifiable, as were the various perennials. Those plants which were not readily identifiable were collected and brought back to the lab for identification. Birds which use the site and adjacent areas were identified by visual observations and sound; whereas, mammals occurring in the area were identified by scats, tracks, burrows, or direct observations. All plants and animals detected during the field investigations were recorded and are provided in compendium Tables 2 & 3 (Appendix A). During the field investigations the site was also evaluated for the presence of any sensitive habitats (e.g., wetlands, streams, etc.) and wildlife corridors.

#### 4.0 GENERAL BIOLOGICAL SURVEY RESULTS

The site supports a relatively diverse mixed desert shrub community typical of this portion of the Mojave Desert. Dominant perennials consisted of burrobush (*Franseria dumosa*), California junipers (*Juniperus californica*), Joshua tree (*Yucca brevifolia*), rabbitbrush (*Chrysothamnus nauseosus*), lycium (*Lycium andersonii*), and ephedra (*Ephedra nevadensis*). Other perennials noted included desert sage (*Salvia dorrii*), goldenbush (*Ericameria cooperii*), creosote bush (*Larrea tridentata*), buckwheat (*Eriogonum fasciculatum*), goldenbush (*Ericameria cooperii*), and yellow-green matchweed (*Gutierrezia sarothrae*). The most common annuals observed included brome grasses (*Bromus* sp.), vinegar weed (*Lessingia germanorum*), Indian ricegrass (*Oryzopsis hymenoides*), and fiddleneck (*Amsinckia tessellata*) (Appendix A, Table 1). Figure 4 depicts the general biological resources present on the site and in the surrounding area.

Ravens (*Corvus corax*), mourning doves (*Zenaida macroura*), cactus wrens (*Campylorhynchus brunneicapillus*), song sparrows (*Melospiza melodia*), and sage sparrows (*Amphispiza belli*) were observed during the field investigations. Numerous desert cottontails (*Sylvilagus auduboni*) were common throughout the site and coyotes (*Canis latrans*), which are the most common predator in the area, were observed during the field investigations. Other common species which have been observed in the general area during other surveys performed by RCA Associates, LLC, included California ground squirrels (*Spermophilus beecheyi*), side-blotched lizards (*Uta stansburiana*), western whiptail lizards (*Cnemidophorus tigris*), and desert spiny lizards (*Sceloporus magister*) (Appendix A, Table 2). These species are expected to inhabit the site and/or adjacent areas. No distinct wildlife corridors were identified on the site or in the immediate surrounding area, and no breeding activity (i.e., nest building) was noted among any of the wildlife species.

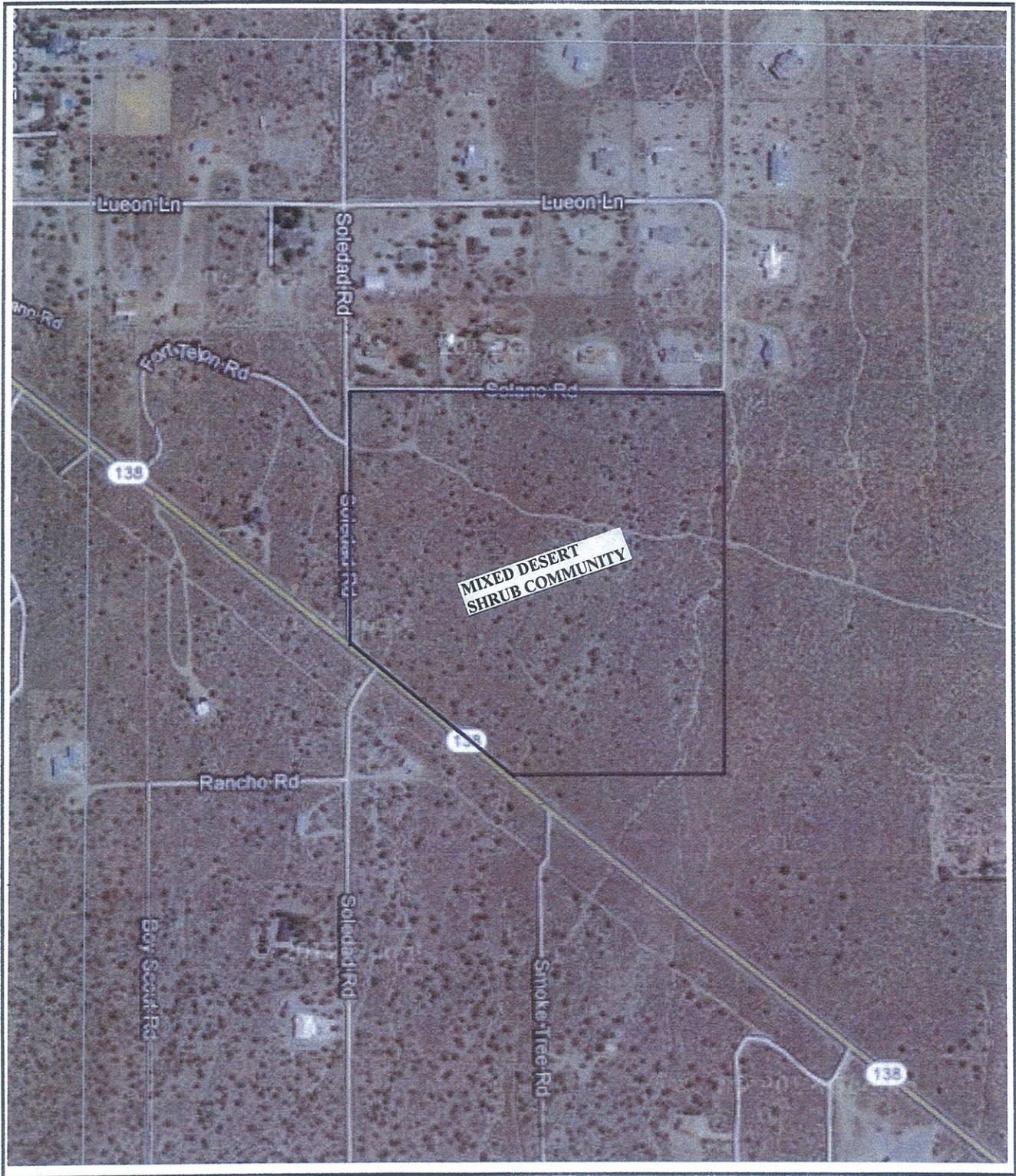


FIGURE 4  
BIOLOGICAL RESOURCES MAP  
N.T.S.  
(Source: Google Maps, 2012)



## **5.0 IMPACTS AND RECOMMENDATIONS**

### **General Biological Resources**

Future development of the site will result in the removal of much of the vegetation within the four parcels in the northern portion of the site; although, the vegetation within the southern portion will be undisturbed. Some wildlife species will be displaced into adjacent areas during the construction phase, with some species, such as small mammals and reptiles, experiencing increased mortality rates. Birds will be able to disperse over larger areas given their mobility and may experience only a slight increase in mortality assuming adjacent areas are not at carrying capacity at the time of displacement. Therefore, cumulative impacts are not expected to be significant given the amount of similar vegetation present in adjacent areas primarily to the north and west. No recommendations regarding the general biological resources are proposed at this time.

### **Sensitive Wildlife Species**

None of the five sensitive species that have been documented within about six miles of the site were observed during the general biological surveys. No tortoises were observed during the focused tortoise survey conducted on the site (See Appendix B for survey report.). However, based on the size of the property (35.95-acres), presence within the known distribution of the Mohave ground squirrel, and the presence of suitable habitat on the site, there is a possibility the species may occur on the property (See Appendix C for a copy of the habitat assessment.). Based on the results of the habitat assessment, CDFG should be contacted prior to future development to discuss mitigations which may be required.

The three species of special concern occurring in the region (pallid San Diego pocket mouse, LeConte's thrasher, and coast horn lizard) could potentially inhabit the site; although, population levels are relatively low in the region. Focused plant surveys were conducted on the site; although, the short-jointed beavertail cactus was not observed during the field surveys and the white pygmy-poppy is unlikely to occur on the site.

## 6.0 PROPOSED MITIGATION MEASURES

The proposed project is not expected to have any significant cumulative impacts on the general biological resources occurring on the property or in the surrounding region. No sensitive species were observed; although, the site does support suitable habitat for the Mohave ground squirrel and CDFG may require implementation of mitigation measures prior to site development. CDFG should be contacted prior to the initiation of site development activities to determine the mitigation measures which may be required. In addition, if any sensitive species (i.e., desert tortoise, etc.) are observed on the site during future activities, all on-site activities should cease and CDFG and USFWS (as applicable) should be contacted to discuss specific mitigation measures which may be required for the individual species. CDFG and USFWS are the only agencies which can grant authorization for the "take" of any sensitive species.

As noted above, there are approximately 150 to 200 Joshua trees present on the site and those trees that will be effected by development activities may need to be transplanted to an area on-site approved by the County. Transplanting activities will need to occur prior to the start of any site clearing activities and should be conducted by a landscaper/arborist who is permitted for relocating Joshua trees.

## 7.0 BIBLIOGRAPHY

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**TABLES**

**CNDDDB Sensitive Species Occurrences**

**Table 1 - Federal and State Listed Species and State Species of Special Concern Occurring Within Two Miles of the Site.**

(Fed; E = Endangered; SC = Species of special concern; S = Sensitive species; CNDDDB = California Natural Diversity Data Base; CNPS: California Native Plant Society)

Name	Listing Status	Habitat Requirements	Presence/Absence	Comments
Desert tortoise ( <i>Gopherus agassizii</i> )	Fed: T State: T	Desert scrub	No tortoises or tortoise sign were observed during focused survey. Very low probability species occurs on-site.	Nearest pop. 6 miles northeast (Occ. #1, CNDDDB, 2012).
Mohave ground squirrel ( <i>Spermophilus mohavensis</i> )	Fed: None State: T	Desert scrub	Site supports suitable habitat for the species.	Nearest observation 6 miles NW of site (Occ. #257, CNDDDB, 2012).
Pallid san Diego pocket mouse ( <i>Chaetodipus fallax pallidus</i> )	Fed: None State: None CDFG: SC	Desert scrub habitats	None observed during the surveys and low probability of occurring on the site.	Nearest observation (1953) 3 miles south of site (Occ. #29, CNDDDB, 2012).
LeConte's thrasher ( <i>Toxostoma lecontei</i> )	Fed: None State: None CDFG: Sc	Desert scrub habitats	None observed during the surveys and low probability of occurring on the site	Nearest observation (1952) 4 miles northwest of site (Occ. #17, CNDDDB, 2012)
Coast Horned Lizard ( <i>Phrynosoma blainvillii</i> )	Fed: None State: None CDFG: SC	Desert scrub	Suite supports suitable habitat for the species but not observed.	Nearest observation 1 mile west of site. (Occ. #147, CNDDDB, 2012)
Short-jointed beavertail cactus ( <i>Opuntia basilaris</i> var. <i>brachyclada</i> )	Fed: None State: None CNPS: List 1B.2	Desert habitats	Not observed during general surveys.	Nearest observation 6 miles northeast of site (Occ. #114, CNDDDB, 2012).
White pygmy-poppy ( <i>Canbya candida</i> )	Fed: None State: None CNPS: List 4.2	Creosote bush scrub and Joshua tree woodland	Not observed during general surveys but could potentially occur on-site.	Nearest observation 1 mile east of site (Occ. #6, CNDDDB, 2012)

**FIGURES**

**Vicinity map**



VICINITY MAP  
N.T.S.  
(Source: ACSC Map Source, 2012)



**SITE PHOTOGRAPHS**



**CENTER OF SITE LOOKING NORTH**

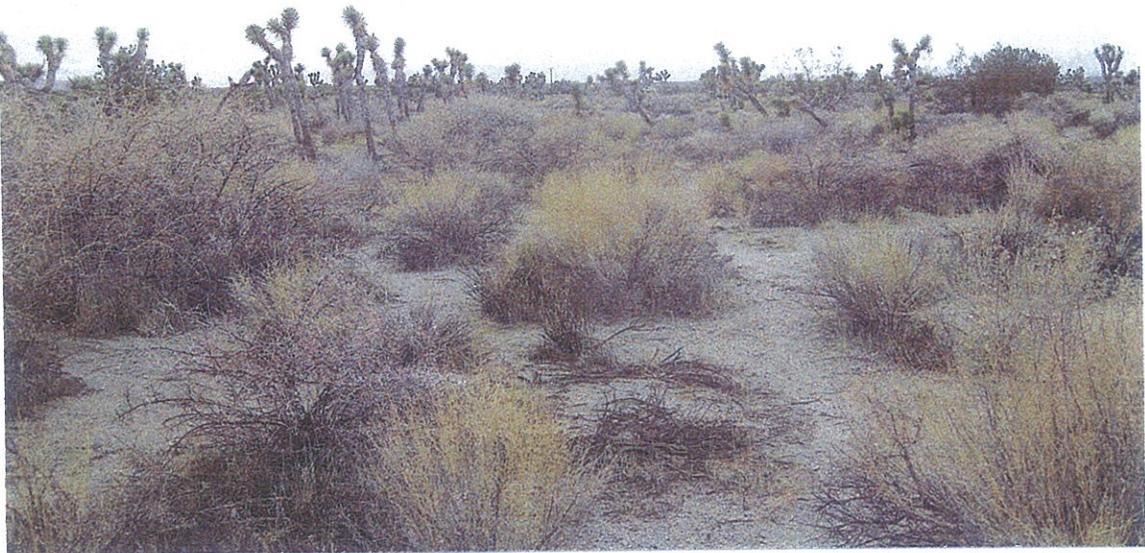


**CENTER OF SITE LOOKING EAST**

**SITE PHOTOGRAPHS  
(TPM 19401, APN 3068-171-07)**



**CENTER OF SITE LOOKING SOUTH**



**CENTER OF SITE LOOKING WEST**

**SITE PHOTOGRAPHS  
(TPM 19401, APN 3068-171-07)**

**APPENDIX A**

**Flora and Fauna Compendium Tables**

**Table 2 - Plants observed on the site and known to occur in the immediate surrounding area.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Location</b>
Vinegarweed	<i>Lessingia germanorum</i>	On-site & off-site
Fiddleneck	<i>Amsinckia tessellata</i>	“
Brome grass	<i>Bromus ps.</i>	“
Indian ricegrass	<i>Oryzopsis hymenoides</i>	“
Joshua tree	<i>Yucca brevifolia</i>	“
California juniper	<i>Juniperus californica</i>	“
Desert sage	<i>Salvia dorrii</i>	“
Yellow-green matchweed	<i>Gutierrezia sarothrae</i>	“
Goldenbush	<i>Ericameria cooperii</i>	“
Buckwheat	<i>Eriogonum fasciculatum</i>	“
Rabbitbrush	<i>Chrysothamnus nauseosus</i>	“
Ephedra	<i>Ephedra nevadensis</i>	“
Lycium	<i>Lycium andersonii</i>	“
Burrobush	<i>Franseria dumosa</i>	“
Creosote bush	<i>Larrea tridentata</i>	“

**Table 3 - Wildlife observed on the site and those species expected to occur in surrounding area.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Location</b>
Common raven	<i>Corvus corax</i>	On-site and in the surrounding area.
Sage sparrow	<i>Amphispiza belli</i>	“
Song sparrow	<i>Melospiza melodia</i>	“
Side-blotched lizard	<i>Uta stansburiana</i>	May occur on-site.
Western whiptail lizard	<i>Cnemidophorus tigris</i>	“
Desert spiny lizard	<i>Sceloporus magister</i>	“
Morning dove	<i>Zenaida macroura</i>	Observed on-site and surrounding area.
Cactus wren	<i>Campylorhynchus brunneicapillus</i>	“
California ground squirrel	<i>Spermophilus beecheyi</i>	May occur on site.
Coyotes	<i>Canis latrans</i>	Observed on-site.
Desert cottontail rabbit	<i>Sylvilagus auduboni</i>	“
Jackrabbit	<i>Lepus californicus</i>	May occur in area.

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 were identified on the site during the one-day survey or which are known to occur in the region.

## CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits, present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Fieldwork 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: 12-18-2012 Signed:   
Report Author

Field Work Performed By: Randall Arnold  
Senior Biologist

Field Work Performed By: Patrica Moore  
Senior Biologist

**Appendix B**  
**Desert Tortoise Report**

# **FOCUSED DESERT TORTOISE SURVEY**

**TENTATIVE PARCEL MAP NO. 19401**

**APN 3068-171-01**

**SAN BERNARDINO COUNTY, CALIFORNIA**  
(USGS Mescal Creek, CA Quad.; Township 4 North, Range 7 West, Section 7)

*Owner/Applicant*

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**Report prepared by: Randall Arnold**  
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**December 19, 2012**

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## EXECUTIVE SUMMARY

The proponent is requesting approval of a parcel map for a 35.95-acre property located at the northeast corner of Rancho Road and Crystalaire Road in San Bernardino County (Township 4 North, Range 7 West, Section 7). The site supports a juniper community dominated by California juniper (*Juniperus californica*), Joshua tree (*Yucca brevifolia*), ephedra (*Ephedra nevadensis*), and rabbitbrush (*Chrysothamnus nauseosus*). No sensitive habitats (i.e., blue-line channels, wetlands, etc.) were observed during the survey, and no definitive wildlife movement corridors were noted on the property or in adjacent areas.

The property is located within the known distribution of the desert tortoise; therefore, focused surveys were performed for the species on October 31, 2012 from approximately 0700 to 1730 hours. Surveys were also conducted in the zone of influence, primarily to the east, as per survey protocol. The surveys were performed by Randall Arnold and Patricia Moore using the standard survey protocol for the species (i.e., 10-meter belt transects and ZOI transects.) as required by California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS).

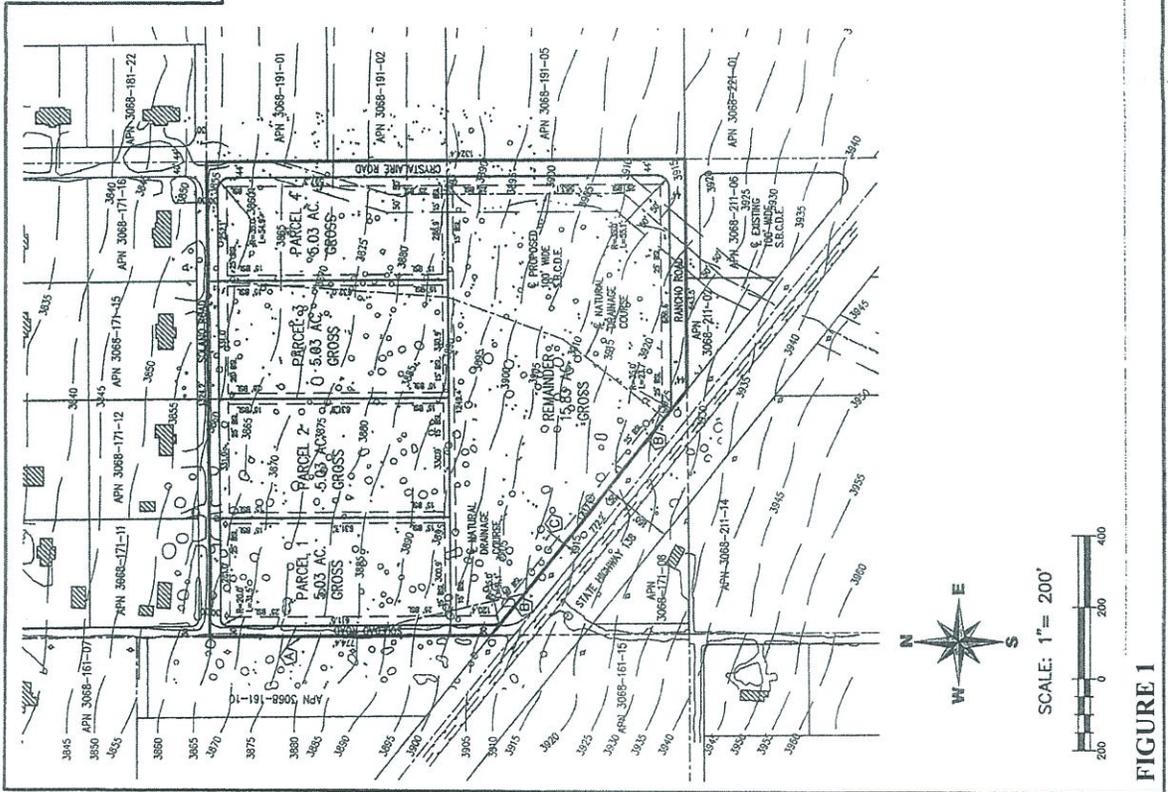
**The site supports suitable habitat for the desert tortoise; however, no tortoises or tortoise sign (burrows, scats, carcasses, etc.) were observed on the site or within the zone of influence. The species has been documented in the region and populations have been documented about six miles northeast of the site (CNDDDB, 2012). Based on the absence of any documented populations in the immediate surrounding area and the results of the focused survey, it is unlikely tortoises will move onto the site in the near future.**

## 1.0 PROJECT AND PROPERTY DESCRIPTION

The proponent is requesting approval of a parcel map (TPM 19401) for a 35.95-acre site (East half of the SE ¼ of the NW ¼ of Section 7, Township 4 North, Range 7 West, of the SBM, State of California) located in San Bernardino County. The property would be subdivided into four parcels (5.03 acres each) plus a remainder parcel of 15.83 acres (Figure 1). The property is located at the northwest corner of Rancho Road and Crystallaire Road at an elevation ranging from 3,840 to 3,920 feet (MSL) with a slight slope to the north (Figures 1, 2, 3, and 4). Focused desert tortoise surveys were conducted on the property on October 31, 2012 during which data on the existing biological conditions was recorded.

Soils consisted of sandy loam with numerous small gravels and small to large rocks. The site is bordered on the north by existing single-family dwellings and on the south by State Highway 138 (Figure 4). Vacant lands border the site on the east and west. The USGS Mescal Creek Quadrangle does not show any blue-line channels on the site; although a few small desert washes do bisect the site in a north-south direction. No wildlife corridors bisect the property, and no sensitive wildlife species were observed during the general biological surveys conducted on October 31, 2012. Weather conditions during the October 31, 2012 survey consisted of winds of 0 to 5 mph, temperatures in the low 50's (°F) to mid-60's (°F) (AM) with cloudy skies.

The site is undisturbed and supports a mixed desert scrub community and is dominated by burrobush (*Franseria dumosa*), Joshua tree (*Yucca brevifolia*), California juniper (*Juniperus californica*), ephedra (*Ephedra nevadensis*), lycium (*Lycium andersoni*), and rabbitbrush (*Chrysothamnus nauseosus*) (Figure 4). Common annuals included buckwheat (*Eriogonum fasciculatum*), brome grasses (*Bromus* sp.), ricegrass (*Oryzopsis hymernoides*), and schismus (*Schismus barbatus*). See Section 4.0 for a detailed discussion of the biological resources.



OFFICIAL USE ONLY

**PUBLIC UTILITIES**

ELECTRICITY : SOUTHERN CALIFORNIA EDISON  
12533 HEWLETT RD.  
HEWLETT, CA 92346  
(760) 241-3905

GAS : INDIVIDUAL PROPANE

WATER : PHELAN EMON MILLS C.S.D.  
P.O. BOX 28498  
PHELAN, CA 92371  
(760) 868-1212

SEWER : SEPTIC TANK

**ZONING & LAND USE**

PRESENT ON SITE : PH/RL VACANT  
PROPOSED ON SITE : PH/RL FUTURE SINGLE FAMILY RES.

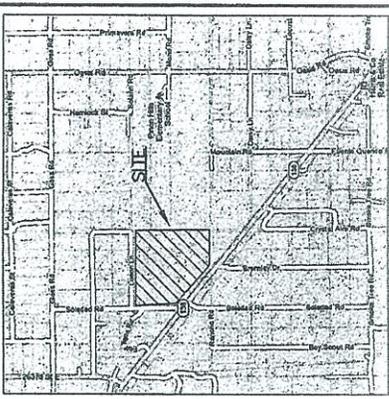
NORTH : PH/RL SINGLE FAMILY RES.  
SOUTH : PH/RL VACANT  
EAST : PH/IN & PH/RS-1 VACANT  
WEST : PH/RL VACANT

**NOTES**

- 0 L.F. NEW STREETS
- NO GRADING IS PROPOSED AT THIS TIME.
- 4 NUMBERED LOTS AND A REMAINDER
- 35.95 AC. GROSS AREA BEING DIVIDED.
- AVERAGE SLOPE OF BOTH FEASIBLE ACCESS ROUTES TO EXISTING LOTS DOES NOT EXCEED TEN PERCENT (10%).
- NO STRUCTURES EXIST WITHIN 15 FEET OF THE PROPERTY LINES. NO STRUCTURES EXIST ON THIS SITE.
- CONTOUR INTERVAL IS 5 FOOT.
- ◀ INDICATES JOSHUA TREE
- S.B.C.D.E. INDICATES SAN BERNARDINO COUNTY DRAINAGE EASEMENT

**EASEMENTS**

- (A) AN EASEMENT IN FAVOR OF THE COUNTY OF SAN BERNARDINO FOR WATER PIPELINES AND APPURTENANCES, COMMUNICATION CABLES AND WIRE RECORDS RECORDED FEBRUARY 25, 1992 AS DOCUMENT 92-089207 OFFICIAL RECORDS.
- (B) AN EASEMENT IN FAVOR OF THE STATE OF CALIFORNIA FOR THE TRANSFER OF UTILITIES RECORDS RECORDED FEBRUARY 26, 1934 IN BOOK 941, PAGE 316 OF OFFICIAL RECORDS.
- (C) AN EASEMENT IN FAVOR OF CALIFORNIA ELECTRIC POWER COMPANY FOR PUBLIC UTILITIES AND INDUSTRIAL PURPOSES, RECORDED JANUARY 21, 1957 IN BOOK 4198, PAGE 302 OF OFFICIAL RECORDS.



VICINITY MAP  
NOT TO SCALE

A PORTION OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 7, T4N, R7W, S5E, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

**TENTATIVE PARCEL MAP  
NO. 19401**

A.P.N. 3068-171-07  
OWNER / APPLICANT

INDHOLS MARKVIN IN  
C/O S. MARK VIN  
2660 WILSHIRE BLVD #234  
LOS ANGELES, CA 90010  
(213) 255-6914

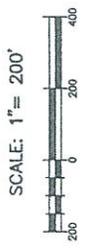
PREPARED: JULY, 2012  
REVISED:

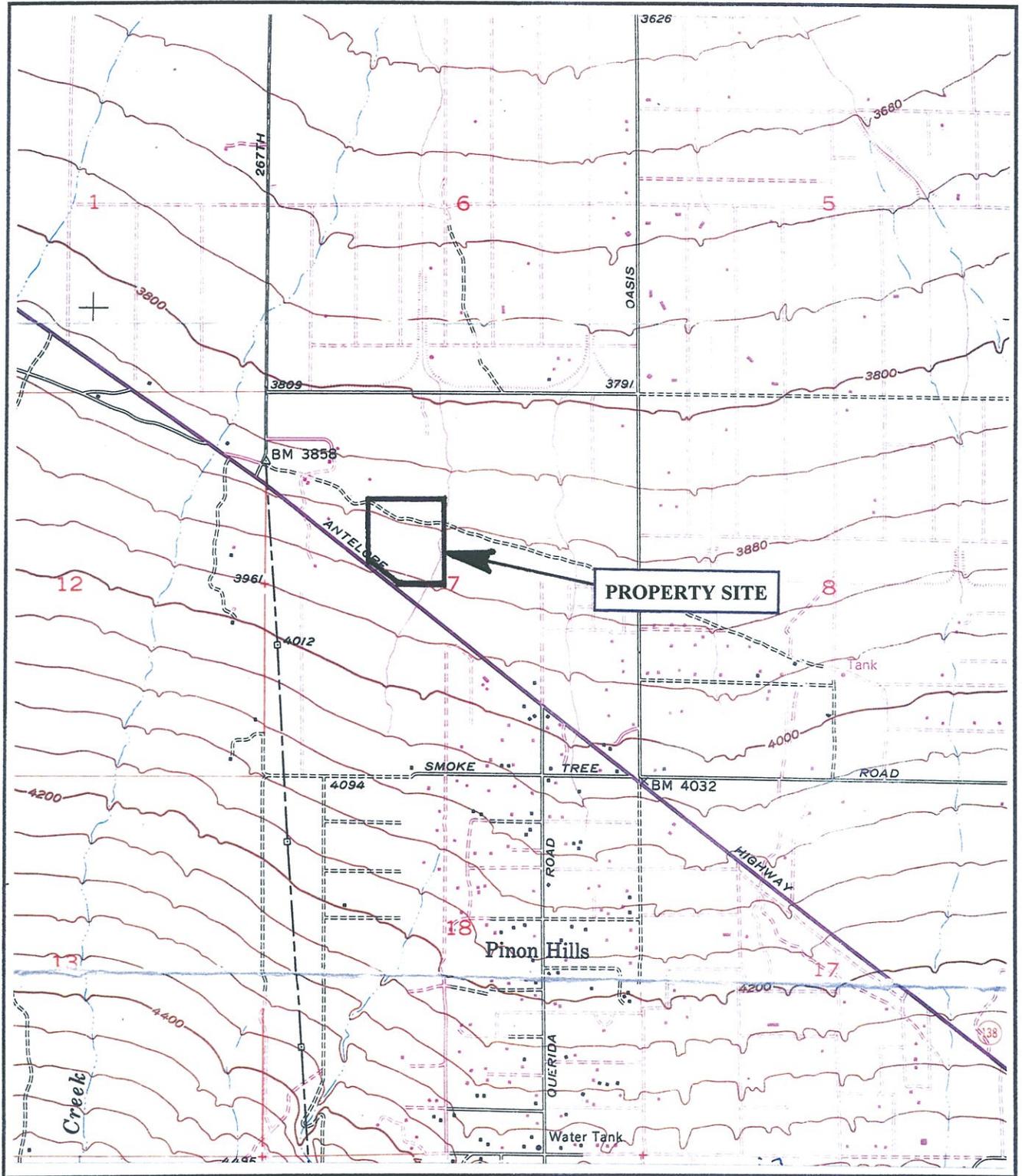
PREPARED BY:



**CUBIT ENGINEERING INCORPORATED**  
16490 WALNUT ST.  
HESSBERG, CA 92346  
(760) 244-7247  
cubitengineering.com

**FIGURE 1**





**FIGURE 2**  
**PROPERTY LOCATION**  
 N.T.S.  
 (Source: Mescal Creek, CA Quad., 1956)





**VIEW FROM SOUTHEAST CORNER LOOKING NORTHWEST**



**VIEW FROM NORTHEAST CORNER LOOKING SOUTHWEST**

**FIGURE 3**  
**(TPM 19401, APN 3068-171-07)**



**VIEW FROM SOUTHWEST CORNER LOOKING NORTHEAST**



**VIEW FROM NORTHWEST CORNER LOOKING SOUTHEAST**

**FIGURE 3, cont.**  
**(TPM 19401, APN 3068-171-07)**

## **2.0 LITERATURE/RECORDS REVIEW FOR DESERT TORTOISE**

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 the tortoises 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 Mescal Creek quadrangle, it was determined that the site is located within the general distribution of the desert tortoise. However, populations of desert tortoises have not been identified in the immediate surrounding area according to CNDDDB (2012). The nearest documented tortoise populations are about six miles northeast of the site (Township 6 North, Range 6 West, Section 34) according to CNDDDB (2012). Population levels in the surrounding area are expected to be relatively low (BLM, 1990).

### **3.0 METHODOLOGY**

The site was surveyed for desert tortoises by Randall Arnold and Patricia Moore on October 31, 2012 and as required by the CDFG and USFWS survey protocol, 10 meter, parallel belt transects were walked in a north-south direction until the property had been checked for tortoises and/or tortoise sign (burrows, tracks, scats, etc.). Surveys in the zone of influence (ZOI) were also conducted in the surrounding area to the east as per survey protocol (Figure 4). ZOI surveys were not conducted to the north, west, and south due to the presence of existing houses, State Highway 138, and posted areas.

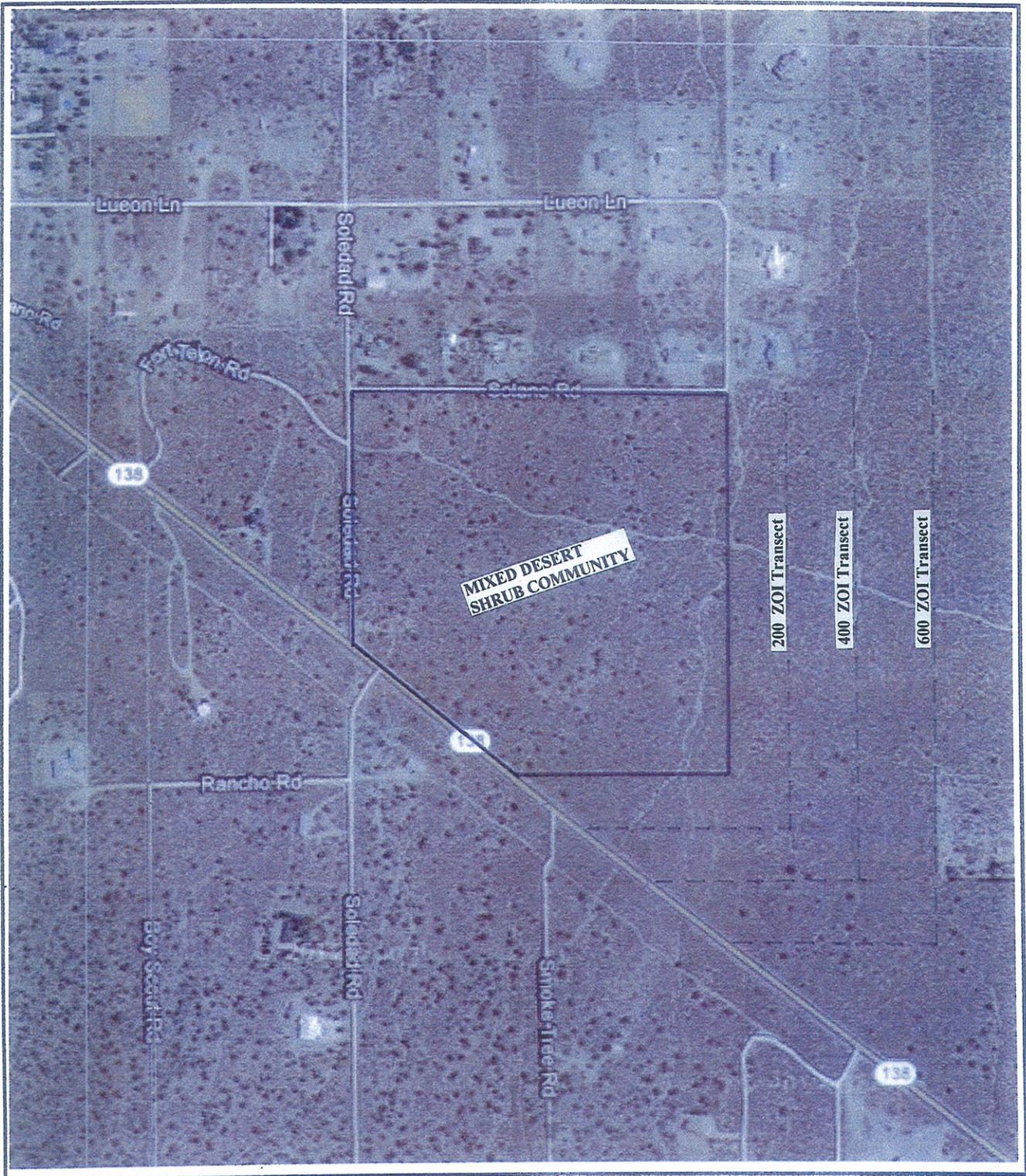
All transects were walked at a pace that allowed careful observations along the transect routes and in the immediate vicinity. Field notes were recorded regarding native plant assemblages, wildlife sign, and human affects in order to determine the presence or absence of suitable tortoise foraging habitat. Surveys were performed on the site and in the surrounding area from about 0700 to about 1730 hours.

USFWS and CDFG specify when surveys for tortoises can be conducted (i.e., April through May and September through October); therefore, surveys were performed on October 31, 2012. Comprehensive surveys combined with identification of the habitat on the site and in the surrounding area will provide data on the potential presence or absence of tortoises. Temperatures during the October survey were in the low 50's (AM, °F) to mid 70's (PM, °F), wind speeds of about 0 to 5 mph (mainly from the south), and cloudy skies. No precipitation was recorded during the survey.

#### **Limitations:**

(1) This report is valid for 12 months from the date of the survey as per CDFG and USFWS requirements. An updated report will be required if project activities do not occur within the next 12-month period as per CDFG and USFWS requirements.

(2) The results of this report do not constitute authorization for the "take" of the desert tortoise or any other listed or sensitive wildlife species. The authorization to impact the tortoise can only be granted by CDFG and USFWS. If desert tortoises are observed during future project activities, project activities should cease immediately and CDFG and USFWS should be contacted to discuss mitigation measures which may be required for the desert tortoise.



**FIGURE 4**  
**ZONE OF INFLUENCE TRANSECTS**  
 N.T.S.  
 (Source: ACSC Map Source, 2012)



#### 4.0 GENERAL BIOLOGICAL SURVEY RESULTS

The site supports a relatively diverse mixed desert shrub community typical of this portion of the Mojave Desert. Dominant perennials consisted of burrobush (*Franseria dumosa*), California junipers (*Juniperus californica*), Joshua tree (*Yucca brevifolia*), rabbitbrush (*Chrysothamnus nauseosus*), lycium (*Lycium andersonii*), and ephedra (*Ephedra nevadensis*). Other perennials noted included desert sage (*Salvia dorrii*), goldenbush (*Ericameria cooperii*), creosote bush (*Larrea tridentata*), buckwheat (*Eriogonum fasciculatum*), goldenbush (*Ericameria cooperii*), and yellow-green matchweed (*Gutierrezia sarothrae*). The most common annuals observed included brome grasses (*Bromus* sp.), vinegar weed (*Lessingia germanorum*), Indian ricegrass (*Oryzopsis hymenoides*), and fiddleneck (*Amsinckia tessellata*) (Appendix A, Table 1). Figure 5 depicts the general biological resources present on the site and in the surrounding area.

Ravens (*Corvus corax*), mourning doves (*Zenaida macroura*), cactus wrens (*Campylorhynchus brunneicapillus*), song sparrows (*Melospiza melodia*), and sage sparrows (*Amphispiza belli*) were observed during the field investigations. Numerous desert cottontails (*Sylvilagus auduboni*) were common throughout the site and coyotes (*Canis latrans*), which are the most common predator in the area, were observed during the field investigations. Other common species which have been observed in the general area during other surveys performed by RCA Associates, LLC, included California ground squirrels (*Spermophilus beecheyi*), side-blotched lizards (*Uta stansburiana*), western whiptail lizards (*Cnemidophorus tigris*), and desert spiny lizards (*Sceloporus magister*) (Appendix A, Table 2). These species are expected to inhabit the site and/or adjacent areas. No distinct wildlife corridors were identified on the site or in the immediate surrounding area, and no breeding activity (i.e., nest building) was noted among any of the wildlife species.

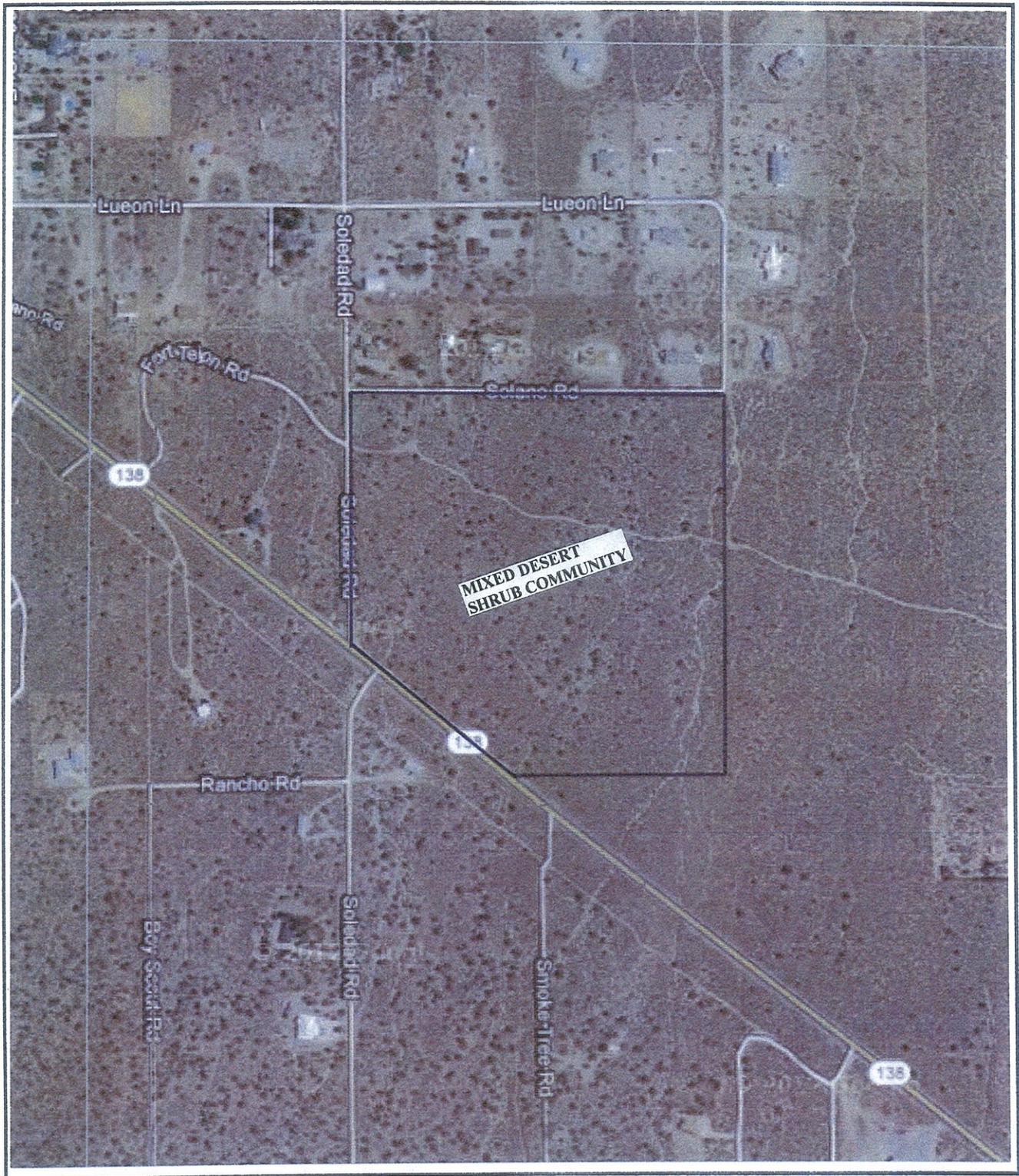


FIGURE 5  
BIOLOGICAL RESOURCES MAP  
N.T.S.  
(Source: ACSC Map Source, 2012)



## 5.0 RESULTS – DESERT TORTOISE

The site supports suitable habitat for the desert tortoise and is located within the known distribution; however, the protocol survey performed on October 31, 2012 did not identify any tortoises or tortoise sign (burrows, scats, etc.) on the site or in the zone of influence. The absence of tortoises or any tortoise sign on the site and in the immediate surrounding area may be a function of the overall low population levels in the region according (CNDDDB, 2012). As previously indicated, the nearest documented population is about six miles northeast of the property (CNDDDB, 2012). Tortoises are not expected to migrate onto the site in the near future based on the results of the field investigations, low population numbers in the general area (BLM, 1990), and the absence of any document populations in the immediate area.

The desert tortoise is the largest reptile in the arid southwest United States, and it historically occupied a range that included a variety of desert communities in southeastern California, southern Nevada, western and southern Arizona, southwestern Utah, and through Sonora and northern Sinaloa, Mexico (Luckenbach, 1982). Today populations are largely fragmented and studies indicate a steady and dramatic decline over most of its former range (BLM, 1988). A highly contagious respiratory disease has infected tortoise populations over the last 20+ years, primarily in the western Mojave Desert region, which has had a very detrimental impact on population levels. Given the continued habitat loss and the rapid decline in numbers of tortoises brought about by the disease, the U.S. Fish and Wildlife Service exercised its emergency authority and determined tortoise populations north and west of the Colorado River to be an endangered species under the Endangered Species Act of 1973, as amended (USFWS, 1989). The emergency rule was published in the Federal Register on August 4, 1989, and remained in effect until April 1, 1990. On April 2, 1990, the U.S. Fish and Wildlife Service officially listed the desert tortoise as a threatened species under the Endangered Species Act of 1973, as amended.

There are no USFWS designated critical habitats for the tortoise in the immediate area nor is there any proposed critical habitat in the area. The protocol survey results outlined in this report are valid for one year as per CDFG and USFWS requirements, and an additional survey may be required if the 12-month time limit is exceeded before site clearing activities are completed. However, regardless of the results of the tortoise survey, desert tortoises cannot be taken under State and Federal law. The survey report and any mitigation included do not constitute authorization for incidental take of the desert tortoise. If tortoises are observed during future site activities, all on-site activities should cease immediately and CDFG and USFWS should be contacted.

## **6.0 IMPACTS AND RECOMMENDATIONS**

Future development of the property is not expected to have any direct or indirect impacts on tortoises or tortoise habitat based on the results of the October 31, 2012 survey. In addition, the project is not expected to disrupt any continuity of any important wildlife habitat or habitat/wildlife corridors. No additional investigations are recommended at this time; however, the survey results are only valid for 12-months and CDFG, USFWS, and the County may require the site be re-surveyed for desert tortoise on-site development activities are not completed by October 31, 2013. In addition, if the site is modified by grading or otherwise disturbed prior to any future project approvals, which result in the loss of desert tortoises, CDFG, USFWS, and the County Building and Safety Department should be notified. Such action prior to project approval will violate State and Federal endangered species laws and may be considered grounds for denial of the project. Mitigation and restoration plans will be required under such actions.

## **7.0 PROPOSED MITIGATION MEASURES**

The site does not support tortoises at the present time and future development activities are not expected to impact the species. Therefore, no mitigation measures are proposed at the present time; however, if tortoises are observed on the property during future activities, all on-site activities should cease immediately and CDFG and USFWS should be contacted to initiate consultations, and to discuss mitigations which will be required prior to continuation of on-site activities. CDFG and USFWS are the only agencies which can grant authorization for the “take” of the desert tortoise.

## 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  
2012 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.
- Luckenbach, Roger A.  
1982 Ecology and Management of the Desert Tortoise (*Gopherus agassizii*) in California. In North American Tortoises: Conservation and Ecology. U.S. Department of Interior, Fish and Wildlife Service. Wildlife Research Report No. 12. pp. 1-36.
- U.S. Department of the Interior, Bureau of Land Management  
1988 Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan. BLM, Washington, D.C.
- 1988 Recommendations for Management of the Desert Tortoise in the California Desert Conservation Area. BLM, Riverside, CA.
- U.S. Department of the Interior, Fish and Wildlife Service.  
1989 The Desert Tortoise Emergency and Proposed Listing. Portland , OR.
- 1989 Endangered and Threatened Wildlife and Plants; Desert Tortoise; Proposed Rule. Federal Register 50 CFR Part 17:42270-42278.
- 1990 Desert Tortoise Density Category Designation Maps. Maps obtained from Ray Bransfield, U.S.F.W.S. biologist, Laguna Niguel office, Laguna Niguel, CA.

**LIST OF TABLES**

**Desert Tortoise Occurrences**

Name	Listing Status	Habitat Requirements	Presence/Absence	Comments
Desert tortoise ( <i>Gopherus agassizii</i> )	Fed: T State: T	Desert scrub	No tortoises or tortoises sign were observed during focused surveys.	Nearest pop. 6 miles northeast (Occ. #1, CNDDDB, 2012)

**LIST OF FIGURES**

**Vicinity Map**



VICINITY MAP  
 N.T.S.  
 (Source: ACSC Map Source, 2012)



**SITE PHOTOGRAPHS**



**CENTER OF SITE LOOKING NORTH**

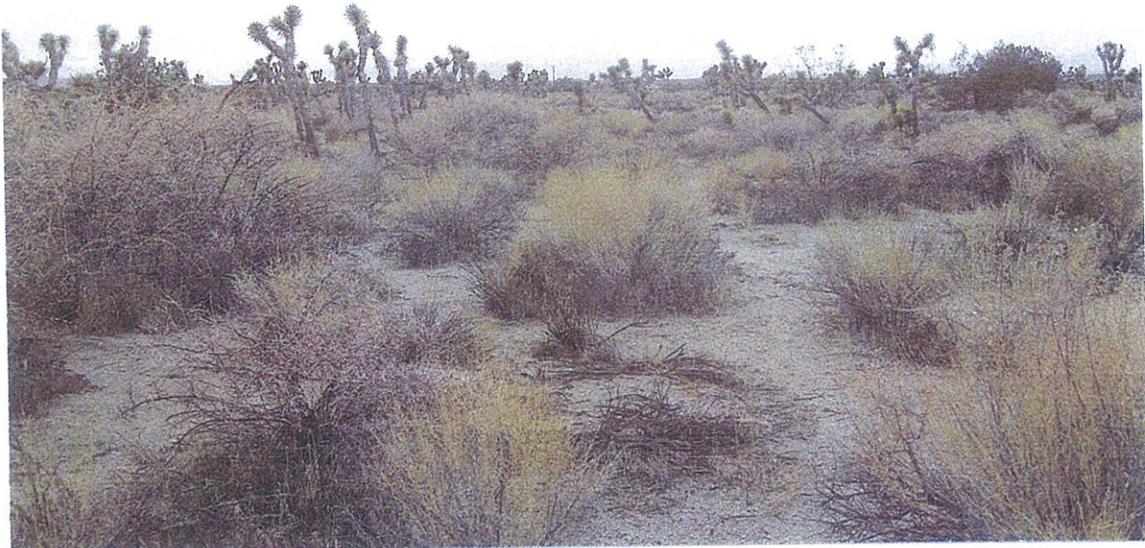


**CENTER OF SITE LOOKING EAST**

**SITE PHOTOGRAPHS  
(TPM 19401, APN 3068-171-07)**



**CENTER OF SITE LOOKING SOUTH**



**CENTER OF SITE LOOKING WEST**

**SITE PHOTOGRAPHS  
(TPM 19401, APN 3068-171-07)**

**APPENDIX A**

**Flora and Fauna Compendia**

**Table 2 - Plants observed on the site and known to occur in the immediate surrounding area.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Location</b>
Vinegarweed	<i>Lessingia germanorum</i>	On-site & off-site
Fiddleneck	<i>Amsinckia tessellata</i>	“
Brome grass	<i>Bromus ps.</i>	“
Indian ricegrass	<i>Oryzopsis hymenoides</i>	“
Joshua tree	<i>Yucca brevifolia</i>	“
California juniper	<i>Juniperus californica</i>	“
Desert sage	<i>Salvia dorrii</i>	“
Yellow-green matchweed	<i>Gutierrezia sarothrae</i>	“
Goldenbush	<i>Ericameria cooperii</i>	“
Buckwheat	<i>Eriogonum fasciculatum</i>	“
Rabbitbrush	<i>Chrysothamnus nauseosus</i>	“
Ephedra	<i>Ephedra nevadensis</i>	“
Lycium	<i>Lycium andersonii</i>	“
Burrobush	<i>Franseria dumosa</i>	“
Creosote bush	<i>Larrea tridentata</i>	“

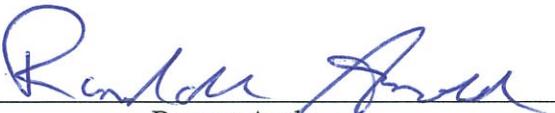
**Table 3 - Wildlife observed on the site and those species expected to occur in surrounding area.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Location</b>
Common raven	<i>Corvus corax</i>	On-site and in the surrounding area.
Sage sparrow	<i>Amphispiza belli</i>	“
Song sparrow	<i>Melospiza melodia</i>	“
Side-blotched lizard	<i>Uta stansburiana</i>	May occur on-site.
Western whiptail lizard	<i>Cnemidophorus tigris</i>	“
Desert spiny lizard	<i>Sceloporus magister</i>	“
Morning dove	<i>Zenaida macroura</i>	Observed on-site and surrounding area.
Cactus wren	<i>Campylorhynchus brunneicapillus</i>	“
California ground squirrel	<i>Spermophilus beecheyi</i>	May occur on site.
Coyotes	<i>Canis latrans</i>	Observed on-site.
Desert cottontail rabbit	<i>Sylvilagus auduboni</i>	“
Jackrabbit	<i>Lepus californicus</i>	May occur in area.

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 were identified on the site during the one-day survey or which are known to occur in the region.

**CERTIFICATION FOR DESERT TORTOISE SURVEY**

I hereby certify that the statements furnished above and in the attached exhibits, present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Fieldwork conducted for this assessment was performed by myself and biologists under my direction. 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: 12-19-2012 Signed:   
Report Author

Field Work Performed By: Randall Arnold  
Senior Biologist

Field Work Performed By: Patricia Moore  
Senior Biologist

**APPENDIX C**

**Mohave Ground Squirrel Report**

# **HABITAT ASSESSMENT FOR MOHAVE GROUND SQUIRREL**

**TENTATIVE PARCEL MAP NO. 19401**

**APN 3068-171-07**

**SAN BERNARDINO COUNTY, CALIFORNIA**  
(USGS Mescal Creek, CA Quad.; Township 4 North, Range 7 West, Section 7)

*Owner/Applicant*

**Jung Hyun Suh  
c/o Cubit Engineering  
16490 Walnut Street, Unit B-3  
Hesperia, CA 92345  
(760) 244-2247**

*Prepared by:*

**RCA Associates, LLC  
15555 Main Street, #D4-235  
Hesperia, California 92345  
Ryan Young, Phoenix Ecological Consulting  
Principal Investigator  
(760) 956-9212**

**Report prepared by: Ryan Young & Randall Arnold  
(760) 956-9212  
Project No: RCA#2012-80B**

**December 19, 2012  
(Date report prepared.)**

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2.0 Literature/Records Review for Mohave Ground Squirrel	7
3.0 Methodology	8
4.0 General Biological Survey Results	10
5.0 Results – Mohave Ground Squirrel	12
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Certification for Mohave Ground Squirrel	

## EXECUTIVE SUMMARY

The proponent is requesting approval of a parcel map for a 35.95-acre property located at the northeast corner of Rancho Road and Crystallaire Road in San Bernardino County (Township 4 North, Range 7 West, Section 7). The site supports a mixed shrub community dominated by burrobush (*Franseria dumosa*), Joshua tree (*Yucca brevifolia*), California juniper (*Juniperus californica*), ephedra (*Ephedra nevadensis*), lycium (*Lycium andersonii*), and rabbitbrush (*Chrysothamnus nauseosus*).

The property is located within the known distribution of the Mohave ground squirrel; therefore, a habitat assessment was performed for the species on October 31, 2012 from approximately 0930 to 1230 hours. The habitat assessment was performed by Ryan Young who 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 for future development activities proposed for the northern portion of the site. Mitigation may involve acquisition of an Incidental Take Permit and payment of appropriate mitigation fees. In lieu of acquiring the Incidental Take Permit, the proponent may elect to conduct a live-trapping survey to definitively determine the presence or absence of the species.

## 1.0 PROJECT AND PROPERTY DESCRIPTION

The proponent is requesting approval of a parcel map (TPM 19401) for a 35.95-acre site (East half of the SE ¼ of the NW ¼ of Section 7, Township 4 North, Range 7 West, of the SBM, State of California) located in San Bernardino County. The property would be subdivided into four parcels (5.03 acres each) plus a remainder parcel of 15.83 acres (Figure 1). The property is located at the northwest corner of Rancho Road and Crystallaire Road at an elevation ranging from 3,840 to 3,920 feet (MSL) with a slight slope to the north (Figures 1, 2, 3, and 4). A habitat assessment was conducted by Mr. Ryan Young on October 31, 2012 to evaluate the site for the presence of suitable habitat for the species.

Soils consisted of sandy loam with numerous small gravels and small to large rocks. The site is bordered on the north by existing single-family dwellings and on the south by State Highway 138 (Figure 4). Vacant lands border the site on the east and west. The USGS Mescal Creek Quadrangle does not show any blue-line channels on the site; although a few small desert washes do bisect the site in a north-south direction. No wildlife corridors bisect the property. Weather conditions during the October 31, 2012 survey consisted of winds of 0 to 5 mph, temperatures in the low 50's (°F) to mid-60's (°F) (AM) and cloudy skies. The site is undisturbed and supports a mixed desert scrub community dominated by burrobush (*Franseria dumosa*), Joshua tree (*Yucca brevifolia*), California juniper (*Juniperus californica*), ephedra (*Ephedra nevadensis*), lycium (*Lycium andersoni*), and rabbitbrush (*Chrysothamnus nauseosus*) (Figure 4). Common annuals included buckwheat (*Eriogonum fasciculatum*), brome grasses (*Bromus sp.*), ricegrass (*Oryzopsis hymernoides*), and schismus (*Schismus barbatus*). See Section 4.0 for a detailed discussion of the biological resources.



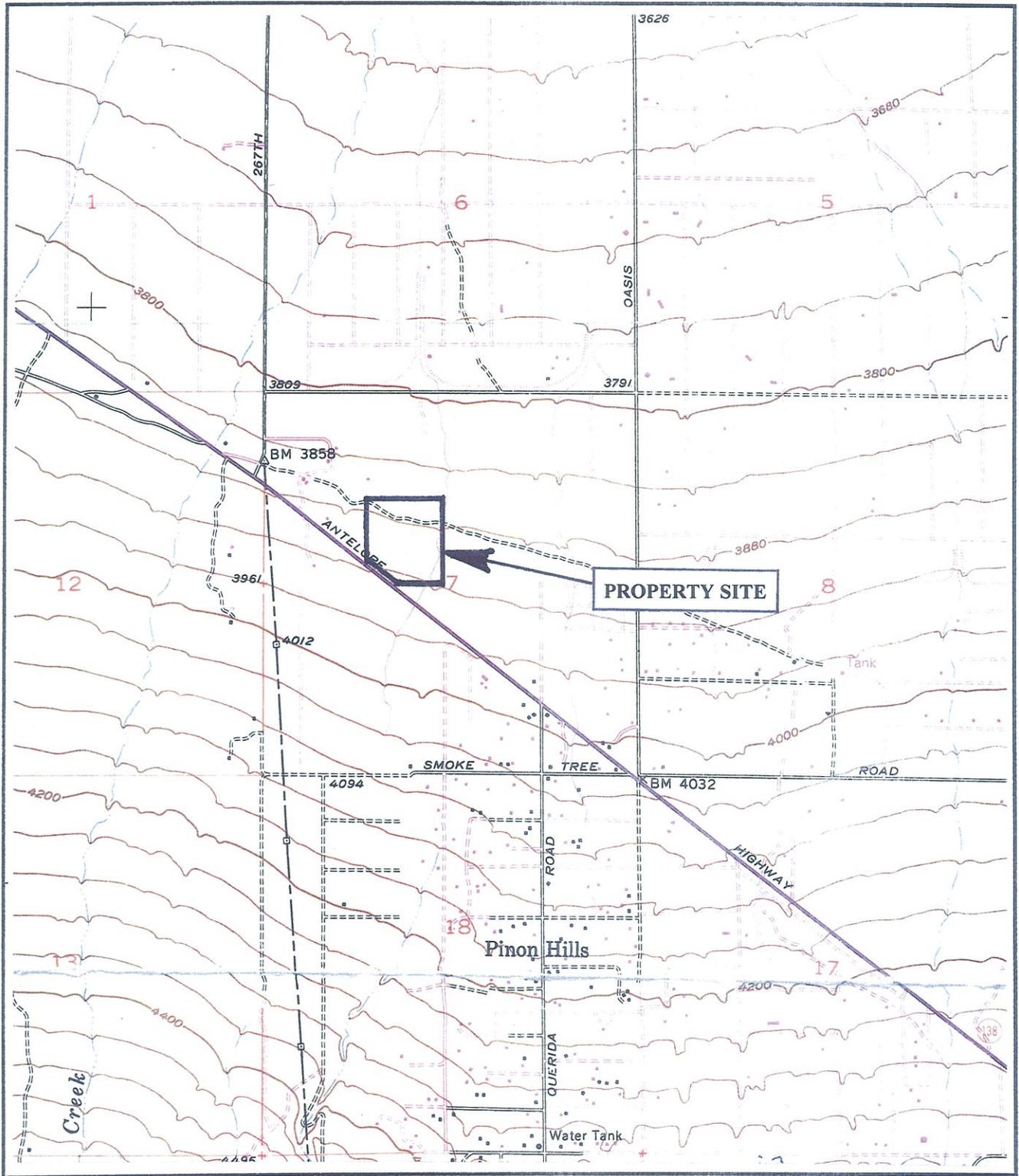
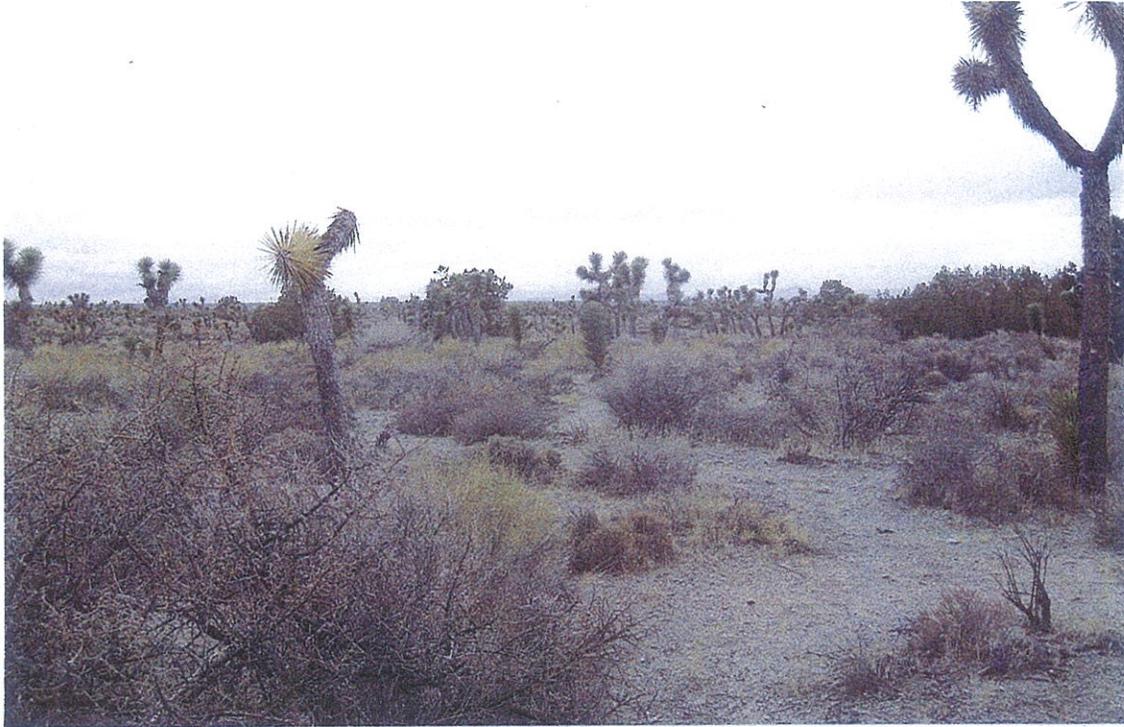


FIGURE 2  
 PROPERTY LOCATION  
 N.T.S.  
 (Source: Mescal Creek, CA Quad., 1956)





**VIEW FROM SOUTHEAST CORNER LOOKING NORTHWEST**



**VIEW FROM NORTHEAST CORNER LOOKING SOUTHWEST**

**FIGURE 3**  
**(TPM 19401, APN 3068-171-07)**



**VIEW FROM SOUTHWEST CORNER LOOKING NORTHEAST**



**VIEW FROM NORTHWEST CORNER LOOKING SOUTHEAST**

**FIGURE 3, cont.  
(TPM 19401, APN 3068-171-07)**

## **2.0 LITERATURE/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 Mescal Creek 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 6 miles northwest of the project (CNDDDB, 2012). This occurrence (#257) is from a female squirrel which was live-trapped in 1994. The second closest observation (Occurrence #46) is about 6 miles northeast of the site and was juvenile that was live-trapped in 1972 (CNDDDB, 2012).

### **3.0 METHODOLOGY**

The habitat assessment was performed on October 31, 2012 by Ryan Young. As per CDFG 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 CDFG MGS Survey Guidelines. A previous habitat assessment was conducted by Mr. Young in 2010 and no changes were noted during the 2012 habitat assessment.

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 (Figure 4). 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 0930 to about 1230 hours. Temperatures during the June survey were in the low 50's (AM, °F) to mid 60's (PM, °F), wind speeds of about 0 to 5 mph (mainly from the north), and partly clouding skies. 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 CDFG. If Mohave ground squirrels are observed during future project activities, the activities should cease immediately and CDFG should be contacted to discuss mitigation measures which may be required for the species.

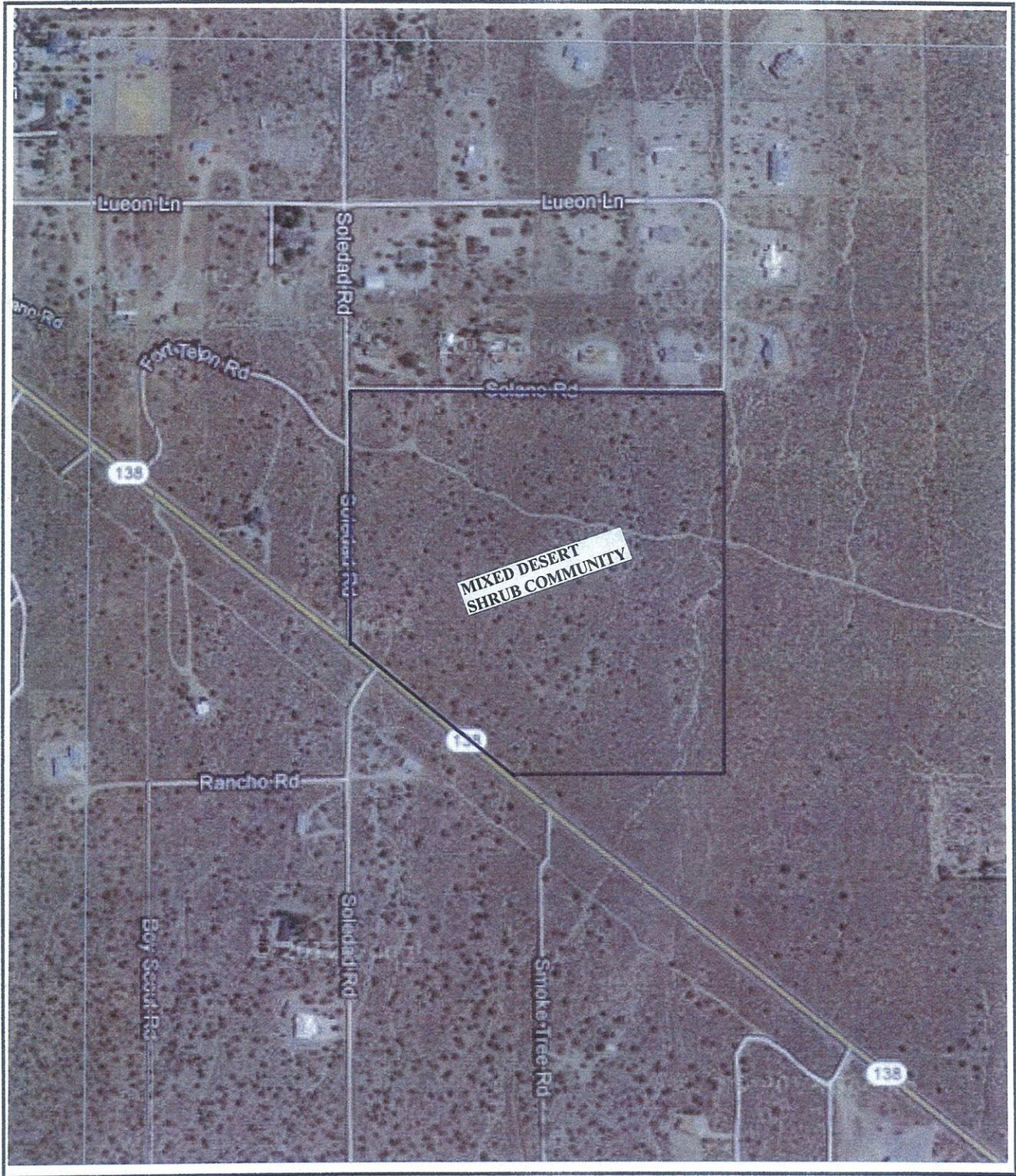


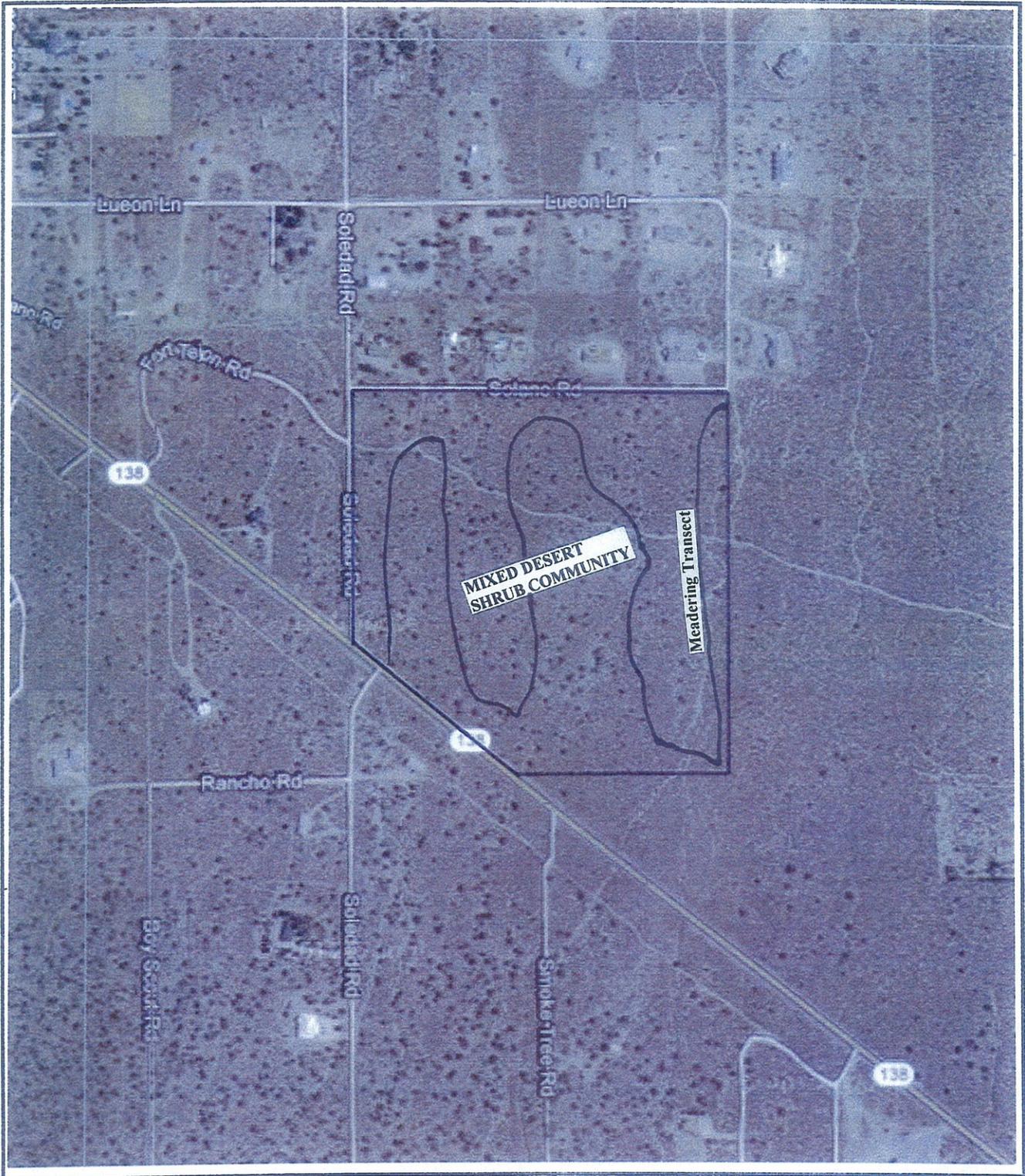
FIGURE 4  
AERIAL VIEW OF SITE  
N.T.S.  
(Source: ACSC Map Source, 2012)



#### 4.0 GENERAL BIOLOGICAL SURVEY RESULTS

The site supports a relatively diverse mixed desert shrub community typical of this portion of the Mojave Desert. Dominant perennials consisted of burrobush (*Franseria dumosa*), California junipers (*Juniperus californica*), Joshua tree (*Yucca brevifolia*), rabbitbrush (*Chrysothamnus nauseosus*), lycium (*Lycium andersonii*), and ephedra (*Ephedra nevadensis*). Other perennials noted included desert sage (*Salvia dorrii*), goldenbush (*Ericameria cooperii*), buckwheat (*Eriogonum fasciculatum*), goldenbush (*Ericameria cooperii*), and yellow-green matchweed (*Gutierrezia sarothrae*). The most common annuals observed included brome grasses (*Bromus* sp.), vinegar weed (*Lessingia germanorum*), Indian ricegrass (*Oryzopsis hymenoides*), and fiddleneck (*Amsinckia tessellata*) (Appendix A, Table 1). Figure 4 depicts the general biological resources present on the site and in the surrounding area.

Ravens (*Corvus corax*), mourning doves (*Zenaida macroura*), cactus wrens (*Campylorhynchus brunneicapillus*), song sparrows (*Melospiza melodia*), and sage sparrows (*Amphispiza belli*) were observed during the field investigations. Numerous desert cottontails (*Sylvilagus auduboni*) were common throughout the site and coyotes (*Canis latrans*), which are the most common predator in the area, were observed during the field investigations. Other common species which have been observed in the general area included California ground squirrels (*Spermophilus beecheyi*), side-blotched lizards (*Uta stansburiana*), western whiptail lizards (*Cnemidophorus tigris*), and desert spiny lizards (*Sceloporus magister*) (Appendix A, Table 2). These species are expected to inhabit the site and/or adjacent areas. No distinct wildlife corridors were identified on the site or in the immediate surrounding area, and no breeding activity (i.e., nest building) was noted among any of the wildlife species.



**FIGURE 5**  
**BIOLOGICAL RESOURCES MAP**  
N.T.S.  
(Source: ACSC Map Source, 2012)



## 5.0 RESULTS – MOHAVE GROUND SQUIRREL

The site supports suitable habitat (i.e., mixed desert shrub community) for the Mohave ground squirrel based on the habitat assessment conducted on the site on October 31, 2012. This conclusion was based on the following criteria. (Note: The local CDFG representative should be contacted for concurrence with this conclusion.)

1. Proximity of recent records (Occurrences #46 and #257).
2. Mixed desert shrub community that is frequently associated with the species.
3. Connectivity to undisturbed habitat in the surrounding area.
4. Numerous small mammal burrows present throughout the site.
5. Property is within the known distribution of the Mohave ground squirrel.

There are no designated critical habitats for the Mohave ground squirrel in the immediate area nor is there any proposed critical habitat in the area. 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 CDFG should be contacted.

The Mohave ground squirrel has been listed by the California Department of Fish and Game as a threatened species, thereby giving the animal protection under the California Endangered Species Act. 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).

## 6.0 IMPACTS AND RECOMMENDATIONS

Future construction of houses on the property will have a direct impact on potential Mohave ground squirrel habitat in the northern part of the site. The site does support suitable habitat for the species and populations of the species may be present on the site. Therefore, the proponent will need to apply for an Incidental Take Permit (2081 permit) from CDFG and provide suitable mitigation fees for the purchase of compensatory mitigations for the 35.95-acres that could be impacted by site development activities. However, in lieu applying for the Incidental Take Permit, the proponent does have the option of conducting a live-trapping survey to definitively determine the presence or absence of the species. The survey must be conducted during the Spring months (March – June) and if the species is not detected during the trapping period, mitigation will not be required by CDFG. However, if the species is detected, the take permit and mitigations will be required as per State requirements.

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, CDFG 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 does support suitable habitat for the Mohave ground squirrel; therefore, the proponent will need to adhere to CDFG guidelines to mitigate for the loss of potentially occupied habitat. As noted in Section 6.0, an Incidental Take Permit will be required prior to the start of on-site activities. The permit application should be submitted to CDFG for review and following approval, mitigation fees will be required for the purchase of compensatory mitigation lands to compensate for the loss of approximately 35.95-acres of suitable Mohave ground squirrel habitat. CDFG is the only agency which can grant authorization for the “take” of the Mohave ground squirrel.

## 8.0 REFERENCES

- California Department of Fish and Game  
1990 California's Wildlife, Volumes 1, 2, and 3. Sacramento.
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- Holing, Dwight  
1998 California Wild Lands. Chronical Books. San Francisco, CA. 211 pp.
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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.

**LIST OF TABLES**

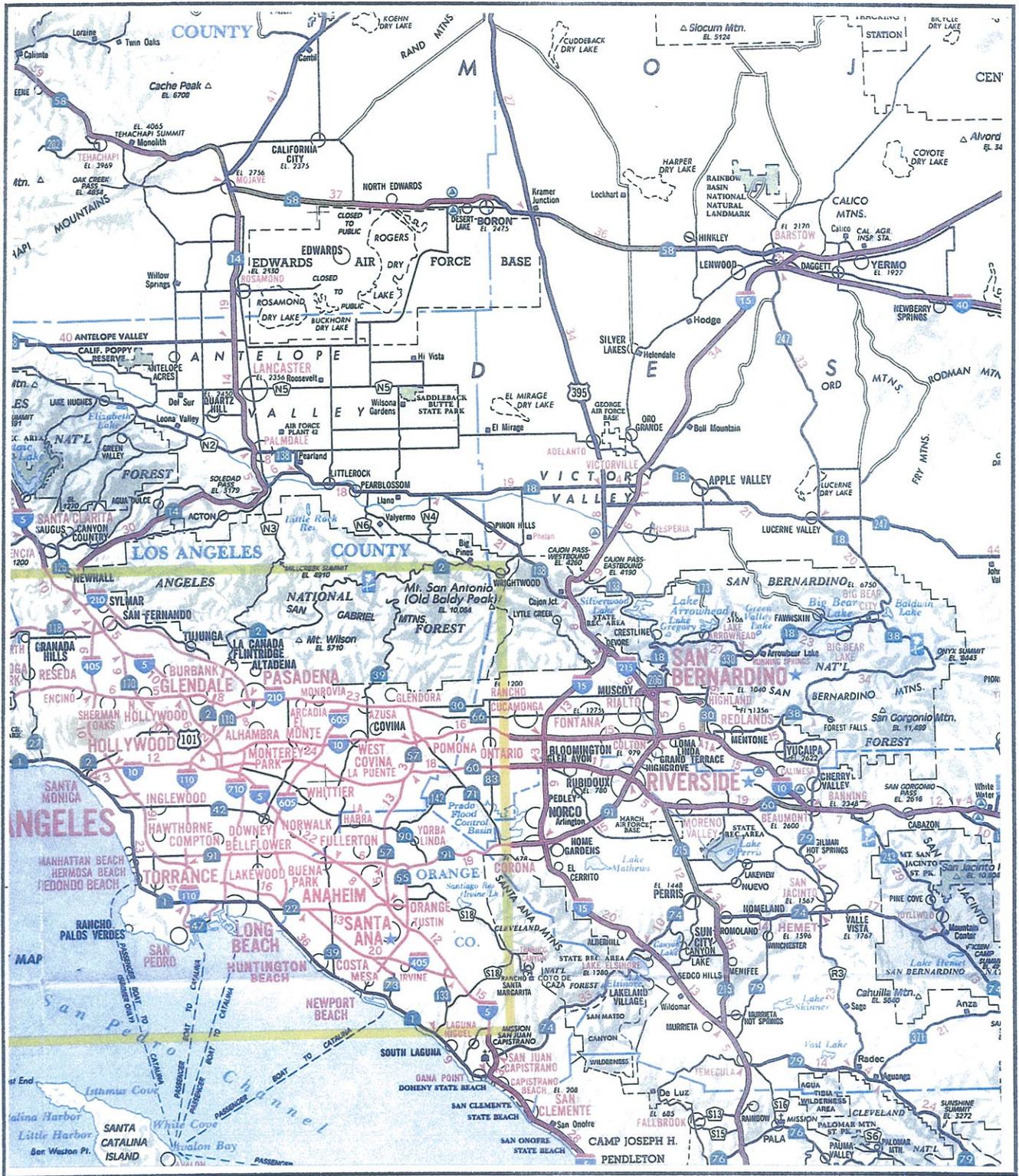
**Mohave Ground Squirrel Occurrence Table**

**Mohave ground squirrel occurrences within ten miles of the site based on California Natural Diversity Data Base (2012).**

Name	Listing Status	Habitat Requirements	Presence/Absence	Comments
Mohave ground squirrel ( <i>Spermophilus mohavensis</i> )	Fed: None State: T	Desert scrub	Site does support suitable habitat for the species. Native vegetation evenly distributed throughout the site.	A. Occurrence #257; 6 miles northwest of site.  B. Occurrence #46; 6 miles northeast of site.

**FIGURES**

**Vicinity Map  
Mohave Ground Squirrel Range Map**



VICINITY MAP  
N.T.S.  
(Source: ACSC Map Source, 2012)



# Southern Range of the Mohave Ground Squirrel

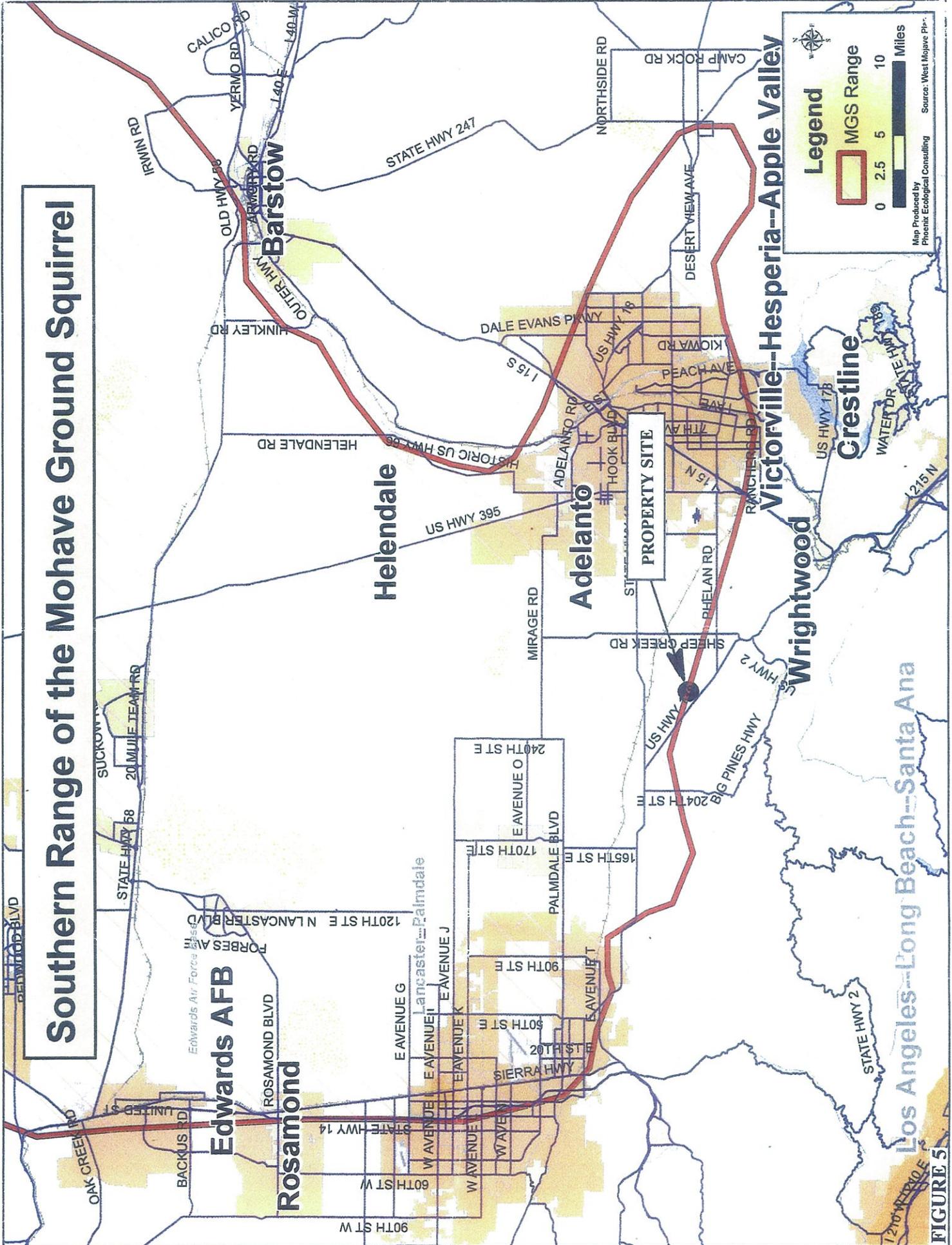


FIGURE 5

**SITE PHOTOGRAPHS**



**CENTER OF SITE LOOKING NORTH**

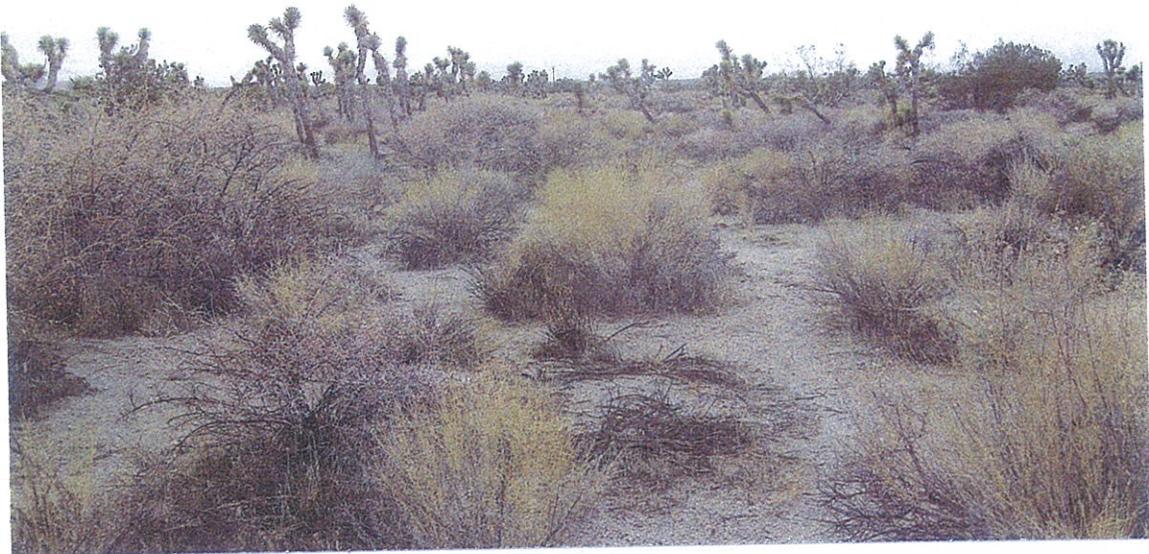


**CENTER OF SITE LOOKING EAST**

**SITE PHOTOGRAPHS  
(TPM 19401, APN 3068-171-07)**



**CENTER OF SITE LOOKING SOUTH**



**CENTER OF SITE LOOKING WEST**

**SITE PHOTOGRAPHS**  
**(TPM 19401, APN 3068-171-07)**

**APPENDIX A**

**Flora and Fauna Compendia**

**Table 2 - Plants observed on the site and known to occur in the immediate surrounding area.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Location</b>
Vinegarweed	<i>Lessingia germanorum</i>	On-site & off-site
Fiddleneck	<i>Amsinckia tessellata</i>	“
Brome grass	<i>Bromus ps.</i>	“
Indian ricegrass	<i>Oryzopsis hymenoides</i>	“
Joshua tree	<i>Yucca brevifolia</i>	“
California juniper	<i>Juniperus californica</i>	“
Desert sage	<i>Salvia dorrii</i>	“
Yellow-green matchweed	<i>Gutierrezia sarothrae</i>	“
Goldenbush	<i>Ericameria cooperii</i>	“
Buckwheat	<i>Eriogonum fasciculatum</i>	“
Rabbitbrush	<i>Chrysothamnus nauseosus</i>	“
Ephedra	<i>Ephedra nevadensis</i>	“
Lycium	<i>Lycium andersonii</i>	“
Burrobush	<i>Franseria dumosa</i>	“
Creosote bush	<i>Larrea tridentata</i>	“

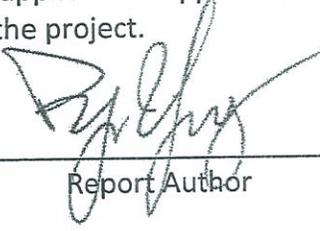
**Table 3 - Wildlife observed on the site and those species expected to occur in surrounding area.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Location</b>
Common raven	<i>Corvus corax</i>	On-site and in the surrounding area.
Sage sparrow	<i>Amphispiza belli</i>	“
Song sparrow	<i>Melospiza melodia</i>	“
Side-blotched lizard	<i>Uta stansburiana</i>	May occur on-site.
Western whiptail lizard	<i>Cnemidophorus tigris</i>	“
Desert spiny lizard	<i>Sceloporus magister</i>	“
Morning dove	<i>Zenaida macroura</i>	Observed on-site and surrounding area.
Cactus wren	<i>Campylorhynchus brunneicapillus</i>	“
California ground squirrel	<i>Spermophilus beecheyi</i>	May occur on site.
Coyotes	<i>Canis latrans</i>	Observed on-site.
Desert cottontail rabbit	<i>Sylvilagus auduboni</i>	“
Jackrabbit	<i>Lepus californicus</i>	May occur in area.

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 were identified on the site during the one-day survey or which are known to occur 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: December 19, 2012 Signed: 

Report Author

Field Work Performed By: 