

# **FOCUSED DESERT TORTOISE SURVEY**

**APN 3068-231-38 and 3068-231-39**

**SAN BERNARDINO COUNTY, CALIFORNIA**

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

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**Project No: RCA#2015-46**

**July 16, 2015**

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## EXECUTIVE SUMMARY

The project proponent is proposing to develop a commercial development in Pinion Hills, San Bernardino County, California on a 1.7-acre parcel (gross). The property is located on the south side of state route 138 just east of Mountain Rd. in Section 7, Township 4 North, Range 7 West in San Bernardino County. The currently undisturbed lot is bordered by single family dwellings to the west, State Route 138 to the north, a commercial development to the east, and Smoke Tree Road to the south. The site is relatively undisturbed, showing only a few signs of past human disturbance (i.e., OHV trails), and native vegetation is present throughout the site. The site currently supports an undisturbed mixed desert scrub community common to this area of the Mojave Desert. Andersons thornbush (*Lycium sp.*), ephedra (*Ephedra nevadensis*), cholla (*Opuntia echinocarpa*), sage brush (*Salvia sp.*), Joshua tree (*Yucca brevifolia*), buckwheat (*Eriogonum fasciculatum*) were the dominant perennials

The property is located within the known distribution of the desert tortoise; therefore, focused surveys were performed for the species on July 16, 2015 from approximately 0800 to 1100 hours. No ZOI surveys were conducted due to the presence of existing houses and private property in the surrounding area. All of the surveys were performed using the standard survey protocol for the species (i.e., 10-meter belt transects) as required by California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS).

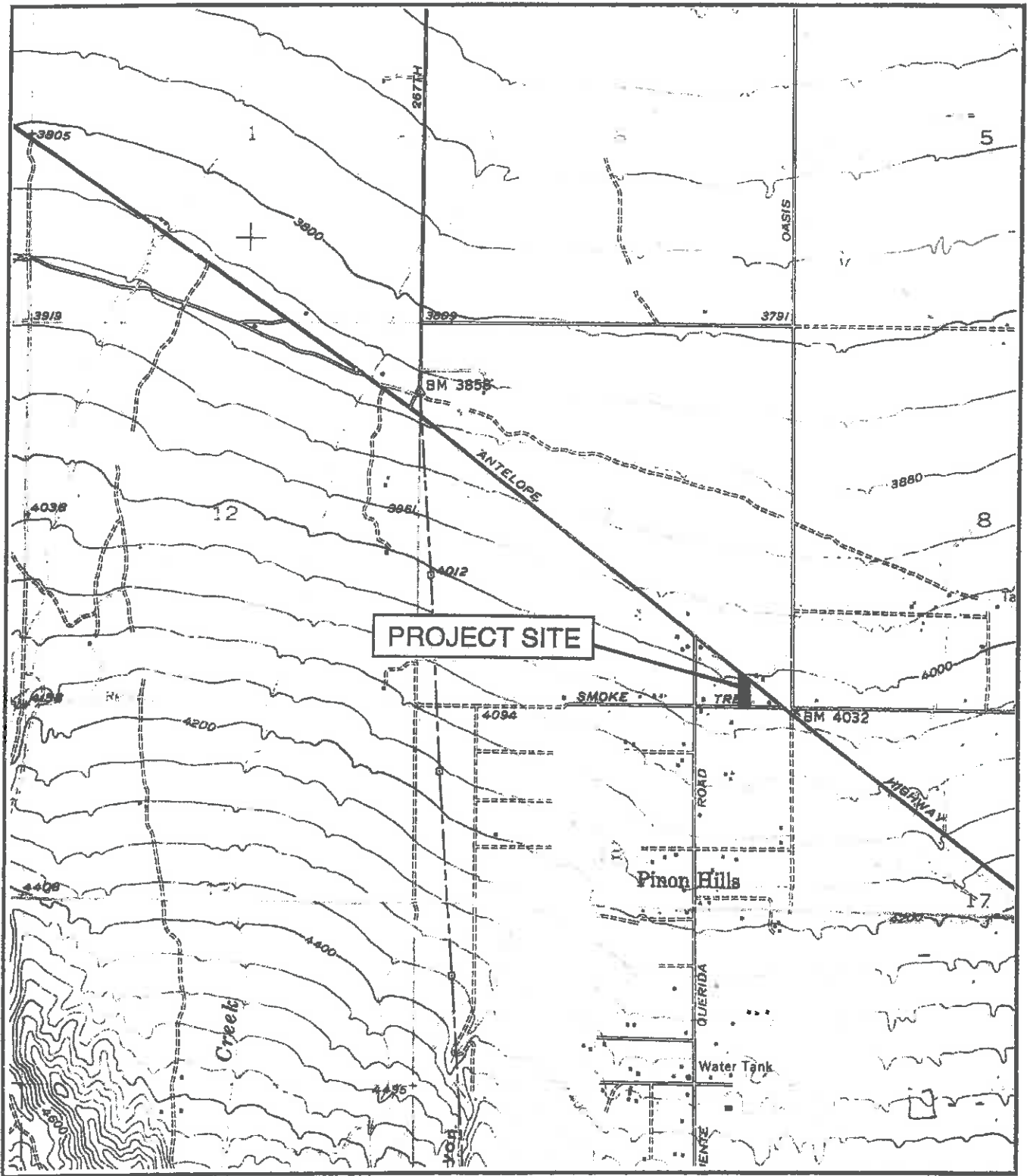
**No desert tortoises or tortoise sign (e.g., burrows, scats, etc.) were observed on the site during the July 6, 2015 surveys. The species has been documented in the general region and populations have been documented about 8 miles northeast of the site (CNDDDB, 2015). However, the species is not expected to move on to the site in the future based on the results of the focused surveys.**

## 1.0 PROJECT AND PROPERTY DESCRIPTION

The site currently supports an undisturbed mixed desert scrub plant community which shows little sign of past human disturbance. The project proponent is proposing to construct a commercial development on the 1.7-acre property (Figures 1, 2, and 3). The parcel is located south of state route 138 and east of Mountain Rd. in Pinion Hills, California. It is located in San Bernardino County (Township 4 North, Range 7 west, Section 7) at an elevation of about 4000 feet (MSL). Soils appear to be primarily sandy loam with some gravels present. No water resources were observed on the site, however a small desert wash runs along the western boundary of the site south to north. The USGS Mescal Creek Quadrangle (1956; revised 1988) does not show any blueline channels on the site or in the immediate surrounding area. No sensitive wildlife habitats, sensitive wildlife species, or wildlife corridors were associated with the site. Weather conditions during the July 16, 2015 survey consisted of winds of 0 to 5 mph, temperatures in the mid 80's to low 90's's (AM, °F) with 0 percent cloud coverage.

Existing single-family dwellings are located in the surrounding area to the south and west, with a commercial development directly east of the site. Dominant species included buckwheat (*Eriogonum fasciculatum*), ephedra (*Ephedra nevadensis*), cholla (*Opuntia echinocarpa*), Andersons thornbush (*Lycium sp.*), Joshua tree (*Yucca brevifolia*), and sage brush (*Salvia Sp.*) (Figure 3). Section 4.0 provides a more detailed discussion of the biological resources. 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.





**FIGURE 2**  
**PROJECT SITE**  
 N.T.S.  
 (Source: USGS Mescal Creek, CA Quad., 1988)





CENTER OF SITE LOOKING EAST



CENTER OF SITE LOOKING NORTH

FIGURE 3  
PHOTOGRAPHS OF SITE

## 2.0 LITERATURE AND RECORDS REVIEW - DESERT TORTOISE

As part of the environmental process, California Department of Fish and Wildlife (CDFW) 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. In addition, populations of desert tortoises have been identified in the general region according to CNDDDB (2013). The nearest documented tortoise populations are about eight miles northeast of the site according to CNDDDB (2015). Tortoise population levels in the immediate area surrounding the site are expected to be very low based on data from CNDDDB (2015) and BLM. (1990).

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 CDFW and USFWS requirements, and an additional survey may be required if the 12-month time limit is exceeded before development 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 CDFW and USFWS should be contacted.

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 Sonora, 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.



### **3.0 METHODOLOGY**

The site was surveyed for desert tortoises by Randall Arnold and Parker Smith on July 16, 2015 and as required by the CDFW and USFWS survey protocol, 10 meter, parallel belt transects were walked in an north-south direction until the entire property had been checked for tortoises and/or tortoise sign (burrows, tracks, scats, etc.). No zone of influence (ZOI) surveys were conducted in the surrounding areas due to the presence of existing houses and private property surrounding the site. 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 0800 to about 1000 hours. Temperatures during the July survey were in the mid 80's to low 90's (AM, °F) with wind speeds of about 0 to 5 mph (mainly from the south), and cloud coverage of 0 percent. No precipitation was recorded during the survey.

#### **Limitations:**

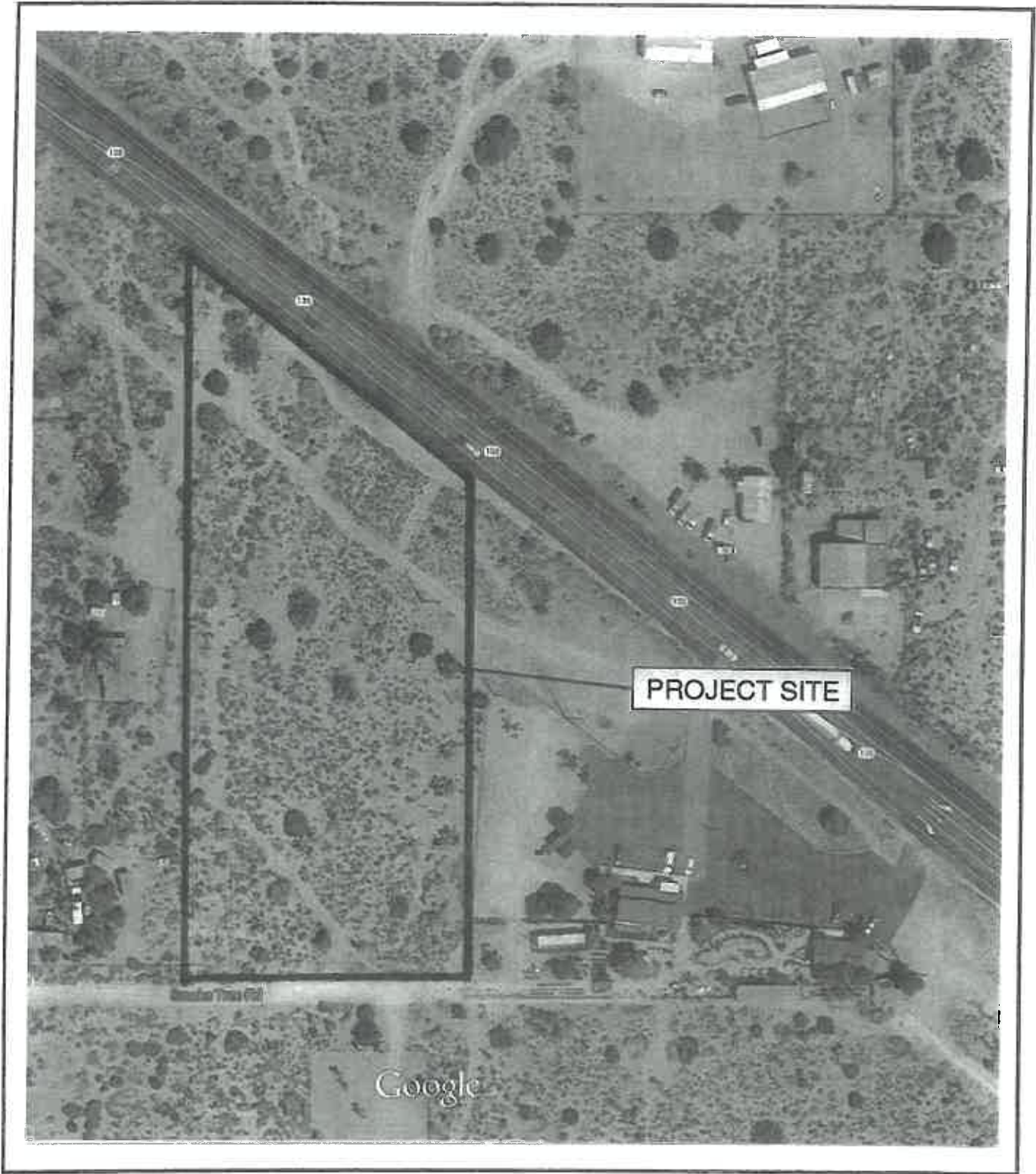
- (1) This report is valid for 12 months from the date of the survey as per CDFW and USFWS requirements. An updated report will be required if project activities do not occur within the next 12-month period as per CDFW and USFWS requirements.
- (2) The results of this report do not constitute authorization 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 CDFW and USFWS. If desert tortoises are observed during future project activities, project activities should cease immediately and CDFW and USFWS should be contacted to discuss mitigation measures which may be required for the desert tortoise.

#### 4.0 GENERAL BIOLOGICAL SURVEY RESULTS

The approximately 1.7-acre site supports a relatively undisturbed mixed desert scrub community common to this area of the Mojave Desert. The dominant perennials included ephedra (*Ephedra nevadensis*), cholla (*Opuntia echinocarpa*), Joshua tree (*Yucca brevifolia*), buckwheat (*Eriogonum fasciculatum*), Andersons thornbush (*Lycium sp.*), and sage brush (*Salvia Sp.*) Annuals present included schismus (*Schismus barbatus*), erodium (*Erodium texanum*), ricegrass (*Oryzopsis hymenoides*), and bromus grass (*Bromus sp.*). Table 1 provides a compendium of plants observed on the property (Appendix A).

The Joshua trees present on the site were also evaluated to determine which trees may be suitable for transplanting. The results are shown in Table 3 (Appendix A). Joshua trees are evaluated for transplanting based on many factors including size, health, number of branches, and how close the trees grow together. In areas of the Mojave Desert that receive more annual precipitation, Joshua trees will often clone. Cloning occurs when more than one Joshua tree are developing off the same root system. Joshua trees which are clonal are typically not suitable for transplanting.

Only a few wildlife species were identified during the field investigations conducted on July 16, 2015. Birds observed were limited to ravens (*Corvus corax*), sage sparrows (*Amphispiza belli*), and Gambel's quail (*Callipepla gambelii*). No reptiles were observed; although, side-blotched lizards (*Uta stansburiana*) and western whiptail lizards (*Cnemidophorus tigris*) are relatively common in the area and may occur on the property. Mammals identified consisted of antelope ground squirrels (*Ammospermophilus leucurus*), and desert cottontail rabbits (*Sylvilagus auduboni*); however, Merriam's kangaroo rats (*Dipodomys merriami*), may occur on the site as well. 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**  
N.T.S.  
(Source: Google Maps, 2015)



## **5.0 RESULTS – DESERT TORTOISE**

**Desert tortoises were not observed during the focused surveys conducted on July 16, 2015 nor were any tortoise burrows or other sign (scats, etc.) noted.** The absence of tortoises and tortoise sign is primarily a function of the very low population levels in the region. As previously indicated, the nearest documented population is about eight miles northeast of the property according to the CNDDDB (2015). Tortoises are not expected to migrate onto the site in the near future based on the results of the field investigations, and the low population levels in the overall region.

## **6.0 IMPACTS AND RECOMMENDATIONS**

The proposed development is unlikely to have an impact on any tortoises or any other sensitive wildlife species based on the results of the field investigations and the absence of any documented population in the immediate region. In addition, the proposed project is not expected to cause a disruption of 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 CDFW, USFWS, and the County may require the site be re-surveyed for desert tortoise if the development activities occur after July 16, 2016.

## **7.0 PROPOSED MITIGATION MEASURES**

The site does not support tortoises and the proposed development is not expected to have an impact any sensitive species. Therefore, no mitigation measures are proposed at the present time; however, if tortoises are observed on the property during future activities all construction activities should cease immediately, and CDFW and USFWS should be contacted to initiate consultations and to discuss mitigations which may be required prior to continuation of any future on-site activities. CDFW 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.
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1998 California Wild Lands. Chronical Books. San Francisco, CA. 211 pp.
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- 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.

**TABLES**

**Desert Tortoise Occurrences**

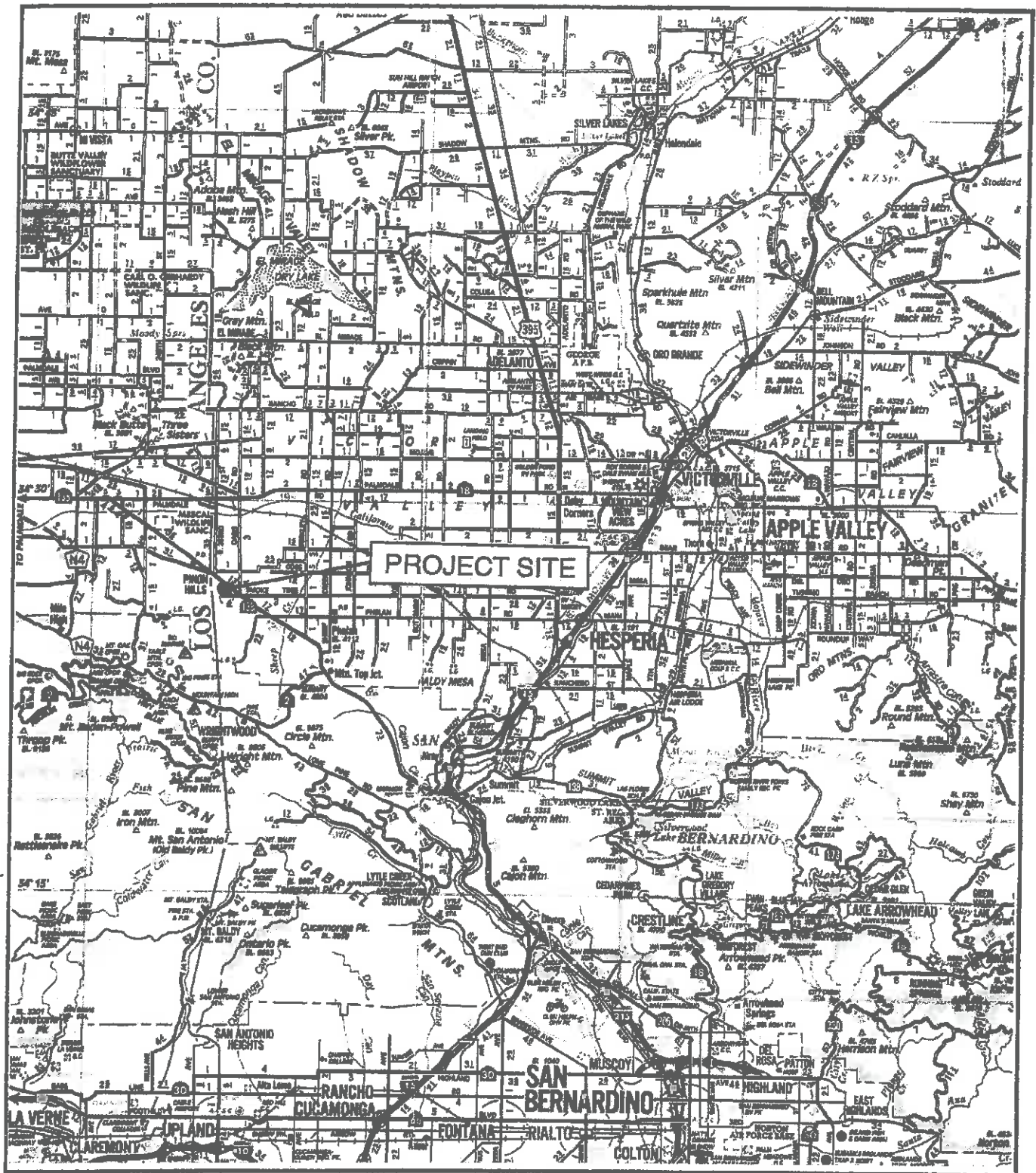


**Desert tortoise occurrences in surrounding area based on California Natural Diversity Data Base (CNDDB; 2013). (T = Threatened).**

Name	Listing Status	Habitat Requirements	Presence/Absences	Comments
Desert tortoise ( <i>Gopherus agassizii</i> )	Federal: T State: T	Desert scrub communities.	Site does not support any tortoises.	Nearest occurrence ~8-miles northeast of site(Occ. #19, CNDDB, 2015)

**FIGURES**

**Vicinity Map**



VICINITY MAP

(APN 3068-231-38 & 39)



## **SITE PHOTOGRAPHS**



CENTER OF PROJECT AREA LOOKING SOUTH



CENTER OF PROJECT AREA LOOKING WEST

**PHOTOGRAPHS OF PROPERTY**

**(APN 3068-231-38 & 39)**

**APPENDIX A**  
**Flora and Fauna Compendia**

**Table 1 - Plants observed during the field investigations.**

Common Name	Scientific Name	Location
Buckwheat	<i>Eriogonum fasciculatum</i>	On-site & ZOI
Schismus	<i>Schismus barbatus</i>	“
Ricegrass	<i>Oryzopsis sp.</i>	“
Brome grass	<i>Bromus sp.</i>	“
Fiddleneck	<i>Amsinckia tessellata</i>	“
Sage	<i>Salvia sp.</i>	“
Cholla	<i>Opuntia echinocarpa</i>	“
Joshua tree	<i>Yucca brevifolia</i>	“
Ephedra	<i>Ephedra nevadensis</i>	“
Beavertail cactus	<i>Opuntia basilaris</i>	“
Anderson’s thornbush	<i>Lycium sp.</i>	“
Paper-bag plant	<i>Salazaria mexicana</i>	“
Erodium	<i>Erodium texanum</i>	“
		“

**ZOI = Zone of Influence**

**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>	“
Morning dove	<i>Zenaida macroura</i>	Occurs in area
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>	Observed on-site
Gambel’s Quail	<i>Callipepla gambelii</i>	“
California ground squirrel	<i>Spermophilus beecheyi</i>	Occurs in area
Coyote	<i>Canis latrans</i>	“
Merriam’s kangaroo rat	<i>Dipodomys mohavensis</i>	“
Desert cottontail rabbit	<i>Sylvilagus auduboni</i>	Observed on-site

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.

**Table 3 – Joshua tree survey results. (Trees suitable for transplanting are highlighted in red.)**

Total Number of Joshua Trees On-site	Joshua Trees Suitable for Transplanted	Number of Clonal Trees	Number of Non-clonal Trees
63	27	28	33

Tag Number	Height (ft.)	Latitude	Longitude	Health	Clonal	Transplantable
20	12'	N34 26.480	W117 38.735	Diseased	Yes	No
21	4'	N34 26.469	W117 38.742	Good	No	Yes
22	4.5'	N34 26.471	W117 38.744	Good	No	Yes
23	14'	N34 26.472	W117 38.743	Good	Yes	No
24	3'	N34 26.475	W177 38.741	Good	No	Yes
25	1'	N34 26.475	W117 38.742	Diseased	No	No
26	3'	N34 26.475	W117 38.739	Good	Yes	Yes
27	4.5'	N34 26.483	W117 38.743	Good	Yes	Yes
28	4.5'	N34 26.484	W117 38.741	Good	No	Yes
29	4'	N34 26.452	W117 38.737	Good	Yes	No
30	16'	N34 26.463	W117 38.736	Diseased	Yes	No
31	14'	N34 26.456	W117 38.734	Diseased	No	No
32	15'	N34 26.465	W117 38.733	Diseased	No	No
33	12'	N34 26.468	W117 38.731	Diseased	Yes	No
34	2.5'	N34 26.470	W117 38.737	Good	Yes	Yes
35	1.5'	N34 26.470	W117 38.733	Good	No	No
36	4'	N34 26.476	W117 38.732	Good	No	Yes
37	1.5'	N34 26.477	W117 38.732	Good	No	No
38	3'	N34 26.476	W117 38.727	Good	Yes	Yes
39	2'	N34 26.479	W117 38.728	Good	No	No
40	1'	N34 26.479	W117 38.729	Good	No	No
41	3'	N34 26.484	W117 38.729	Good	No	Yes
42	3'	N34 26.504	W117 38.730	Good	Yes	Yes
43	1'	N34 26.508	W117 38.730	Diseased	Yes	No
44	2'	N34 26.513	W117 38.727	Good	Yes	No
45	3'	N34 26.512	W117 38.723	Good	No	Yes
46	9'	N34 26.512	W117 38.710	Good	No	Yes
47	8'	N34 26.511	W117 38.704	Good	Yes	No
48	9'	N34 26.511	W117 38.701	Good	Yes	No
49	4'	N34 26.511	W117 38.700	Good	No	Yes
50	2'	N34 26.506	W117 38.710	Good	No	Yes
51	3'	N34 26.506	W117 38.724	Good	No	Yes
52	1'	N34 26.504	W117 38.726	Good	No	No
53	2'	N34 26.502	W117 38.726	Good	No	Yes
54	4'	N34 26.500	W117 38.728	Good	No	Yes
55	6'	N34 26.497	W117 38.724	Good	Yes	No
56	12'	N34 26.495	W117 38.725	Diseased	Yes	No
57	3'	N34 26.495	W117 38.725	Good	Yes	No
58	1'	N34 26.495	W117 38.722	Good	No	No
59	7'	N34 26.488	W117 38.725	Good	No	Yes



60	4'	N34 26.492	W117 38.723	Good	No	Yes
61	4'	N34 26.492	W117 38.724	Good	No	Yes
62	6'	N34 26.490	W117 38.723	Good	No	Yes
63	1'	N34 26.490	W117 38.724	Good	No	No
64	17'	N34 26.492	W117 38.725	Diseased	Yes	No
65	1'	N34 26.452	W117 38.727	Good	No	No
66	16'	N34 26.450	W117 38.726	Diseased	Yes	No
67	4'	N34 26.462	W117 38.722	Good	No	Yes
68	1.5'	N34 26.467	W117 38.723	Good	No	No
69	11'	N34 26.486	W117 38.721	Good	No	Yes
70	1'	N34 26.489	W117 38.722	Good	No	No
71	4'	N34 26.499	W117 38.717	Good	No	Yes
72	12'	N34 26.490	W117 38.708	Diseased	Yes	No
73	12'	N34 26.490	W117 38.711	Diseased	Yes	No
74	7'	N34 26.482	W117 38.708	Good	No	Yes
75	8'	N34 26.483	W117 38.706	Diseased	Yes	No
76	12'	N34 26.478	W117 38.714	Good	Yes	No
77	14'	N34 26.474	W117 38.711	Good	Yes	No
78	18'	N34 26.466	W117 38.710	Diseased	Yes	No
79	10'	N34 26.459	W117 38.712	Good	No	Yes
80	14'	N34 26.452	W117 38.712	Good	Yes	No
81	5'	N34 26.452	W117 38.711	Diseased	Yes	No
82	2'	N34 26.445	W117 38.716	Good	No	No
83	1.5'	N34 26.450	W117 38.717	Diseased	Yes	No

## 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: 7-16-2015 Signed:   
Report Author

Field Work Performed By: Randall Arnold  
Senior Biologist

Field Work Performed By: Parker Smith  
Biological Field Technician