GENERAL BIOLOGICAL RESOURCE ASSESSMENT

TENTATIVE PARCEL MAP NO. 19880
SAN BERNARDINO COUNTY, CALIFORNIA
(USGS Baldy Mesa, CA Quad.; Township 4 North, Range 5 west, Sections 19)

Owner/Applicant

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Project No: RCA#2018-27

April 10, 2018

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TITLE PAGE

Date Report Written: April 10, 2018

Date Field Work Completed: April 10, 2018

Report Title: General Biological Resources Assessment

Assessor's Parcel Number: 3064-181-06, 09, 08, & 13

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1.0 INTRODUCTION AND SUMMARY

Comprehensive biological surveys were conducted on April 10, 2018 on a 10.0-acre parcel (gross) located between Elsinore Road (north) and Nelson Road in San Bernardino California (Township 4 North, Range 5 West, Section 19) (Appendix A: Figures 1, 2, 3, and 4). 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. Following the data review, surveys were performed on the site on April 10, 2018 during which the biological resources on the property and in the surrounding areas were documented by biologists from RCA Associates, Inc. As part of the surveys, the property site was evaluated for the presence of native habitats which could potentially support populations of sensitive wildlife species. Focused surveys were also conducted for the desert tortoise and burrowing owl, and a habitat assessment was also performed for the Mohave ground squirrel. The property was also evaluated for the presence of sensitive habitats including wetlands, vernal pools, riparian habitats, and jurisdictional areas.

Based on data from USFWS, CDFW, and a search of the California Natural Diversity Database (CNDDB, 2018), there are seven sensitive wildlife species that have been documented in the region within approximately five miles of the project site. These sensitive species include desert tortoise (*Gopherus agassizii*), burrowing owl (*Athene cunicularia*), Mohave ground squirrel (*Spermophilus mohavensis*), loggerhead shrike (*Lanius ludovicianus*), sagebrush loeflingia (*Loeflingia squarrosa var. artemisiarum*), coast horned lizard (*Phrynosoma blainvillii*), and short-joint beavertail (*Opuntia basilaris var. brachyclada*). Scientific nomenclature for this report is based on the following references: Hickman (1993), Munz (1974), Stebbins (2003), Sibley (2000) and Whitaker (1980).

2.0 EXISTING CONDITIONS

The property is approximately 10.0-acres in size (gross) and is located between Elsinore Road (north) and Nelson Road in San Bernardino California (T4N, R5W, Section 28) (Appendix A: Figures 1, 2, and 3). The site supports a relatively undisturbed desert vegetation community that shows very little sign of past human disturbance (Figure 3).

The perennials observed included brome grasses (*Bromus sp.*), schismus (*Schismus barbatus*), California buckwheat (*Eriogonum fasciculatum*), Sahara Mustard (*Brassica tournefortii*), paperbag plant (*Salazaria Mexicana*), cholla (*Cylindropuntia echinocarpa*). (Appendix A: Figure 3). A few other species were scattered throughout the site such as California juniper (*Juniperus californica*), Ephedra (*Ephedra nevadansis*), and a several Joshua trees (*Yucca brevifolia*). The property is bordered on the north, south, east, and west by single-family homes on 2.5-acre parcels.

No desert tortoises, burrowing owls, or Mohave ground squirrels were observed on the site during the field investigations, nor were any sensitive habitats identified.

3.0 METHODOLOGIES

Comprehensive biological surveys were conducted on April 10, 2018 during which biologists from RCA Associates, Inc. initially walked meandering transects throughout the site to collect data on the plant and animal communities. Following completion of the initial reconnaissance survey, focused surveys were conducted for the burrowing owl and desert tortoise, and a habitat assessment was also performed for the Mohave ground squirrel. The applicable methodologies are summarized below.

Surveys were performed on the site and in the surrounding area from about 0830 to about 1030 hours. Weather conditions during the April 10, 2018 survey consisted of winds 0-5 mph, temperatures in the mid-70's (AM) (ºF) with clear skies. All plants and animals detected during the field investigations were recorded and are provided in Tables 1 & 2 along with other species that have been documented in the area (Appendix A).

Desert Tortoise: The site was surveyed for desert tortoises by Biologists from RCA Associates, Inc., and as required by the CDFW and USFWS survey protocol, 10 meter parallel belt transects were walked in a north-south direction until the entire property had been checked for tortoises and/or tortoise sign (burrows, tracks, scats, etc.). Surveys in the zone of influence (ZOI) could not be conducted due to the surrounding areas being private property. 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. USFWS and CDFW specify when surveys for tortoises should be conducted (i.e., April through May and September through October); therefore, surveys were conducted on April 10, 2018.

Burrowing Owl: A habitat assessment was conducted for the burrowing owl in conjunction with the general biological surveys to determine if the site supports suitable habitat for the species. Following completion of the habitat assessment, it was determined that the site does support suitable habitat for the owl; therefore, a focused survey was performed for burrowing owls. As part of the burrowing owl survey, transects were walked throughout the site during which any suitable burrows were evaluated for owls and owl sign. Burrowing owls typically utilized burrows which have been excavated by other animals (squirrels, coyotes, foxes, dogs, etc.) since owls cannot dig their own burrows. CDFW protocol also requires surveys be conducted in the surrounding area out to a distance of about 500 feet; therefore, surveys were performed beyond the boundaries of the site.

Mohave Ground Squirrel: A habitat assessment was performed for the Mohave ground squirrel as per CDFW protocol including an analysis of the on-site habitat, evaluation of local populations, and assessment of connectivity with habitats in the surrounding area which might support populations of the Mohave ground squirrel.

4.0 LITERATURE SEARCH

As part of the environmental process, a search of the California Natural Diversity Database (CNDDB, 2018) was performed. Based on this review, it was determined that one sensitive species has been documented within the general region of the property. The following table provides data on each species.

Table 4-1: Federal and State Listed Species and State Species of Special Concern.
T = Threatened; E = Endangered; SSC = Species of special concern; CNDDB = California Natural Diversity Data Base
CNPS = California Native Plant Society

Name	Listing Status	Habitat Requirements	Presence/Absence	Comments
burrowing owl *(Athene cunicularia)*	Fed: None State: None CDFW: SC	Open, dry annual or perennial grasslands, deserts & scrublands	Species not present on the site. Site does not support suitable habitat for the species.	Species is documented in the general region CNDDB (2018)
desert tortoise (*Gopherus agassizii*)	Fed: T State: T	Joshua tree woodland Mojavean desert scrub Sonoran desert scrub	Species not present on the site. Site does not support suitable habitat for the species.	Species is documented in the general region CNDDB (2018)
loggerhead shrike (*Lanius ludovicianus*)	Fed: None State: None CDFW: SC	Desert wash Joshua tree woodland Mojavean desert scrub Pinon & juniper woodlands	Species not present on the site. Site does not support suitable habitat for the species.	Species is documented in the general region CNDDB (2018)
Mohave ground squirrel (*Xerospermophilus mohavensis*)	Fed: None State: T	Chenopod scrub Joshua tree woodland Mojavean desert scrub	Species not present on the site. Site does not support suitable habitat for the species.	Species is documented in the general region CNDDB (2018)
Sagebrush loeflingia (*Loeflingia squarrosa var. artemisiarum*)	Fed: None State: None CNPS: 2B.2	Desert dunes Great Basin scrub Sonoran desert scrub	Species not present on the site.	Species is documented in the general region CNDDB (2018)
short-joint beavertail (*Opuntia basilaris var. brachyclada*)	Fed: None State: None CNPS: 1B.2	Chaparral Joshua tree woodland Mojavean desert scrub Pinon & juniper woodlands	Species not present on the site.	Species is documented in the general region CNDDB (2018)
coast horned lizard (Phrynosoma blainvillii)	Fed: None State: None CDFW: SC	Various habitats	Species not present on the site.	Species is documented in the general region CNDDB (2018)

5.0 RESULTS

5.1 General Biological Resources

The site currently supports a marginally disturbed desert community (Figures 3). Plants observed during the field investigations included brome grasses (Bromus sp.), schismus (Schismus barbatus), California buckwheat (Eriogonum fasciculatum), Sahara Mustard (Brassica tournefortii), paperbag plant (Salazaria Mexicana), cholla (Cylindropuntia echinocarpa). (Appendix A: Figure 3). A few other species were scattered throughout the site such as California juniper (Juniperus californica), Ephedra (Ephedra nevadansis), and a several Joshua trees (Yucca brevifolia).

The wildlife observed directly on the site during the April 10, 2018 included ravens (*Corvus corax*), Desert cottontail Rabbit (*Sylvilagus auduboni*), Side-blotched lizard (*Uta stansburiana*), Northern mockingbird (*Mimus polyglottos*), gamble's quail (*Callipepla gambelii*), and black-tailed jackrabbit (*Lepus californicus*). Additionally, a few small mammal burrows were noted indicating the possible presence of Merriam's kangaroo rats (*Dipodomys merriami*) and/or antelope ground squirrels (*Ammospermophilus leucurus*), which are common in the area. Coyotes (*Canis latrans*) may also traverse the site during hunting activities based on the presence of a few scats. Table 2 (Appendix A) provides a list of all species observed on the site and/or in the surrounding region during the surveys. No distinct wildlife corridors were identified on the site or in the surrounding area.

5.2 Federal and State Listed Species and Species of Special Concern

Burrowing Owl: There are numerous owl colonies that have been observed in the region with the nearest colony about 2-miles from the site (CNDDB, 2018). In addition, there are numerous other documented owl colonies within about five miles of the site (CNDDB, 2018). However, no burrows were detected on the site that were of sufficient size to be suitable for owls; furthermore, no owls or owl sign (whitewash, castings, etc.) were observed during the field investigations. Based on the results of the field surveys and the absence of suitable burrows for owls, the species is not expected to inhabit the property in the near future.

Desert Tortoise: Desert tortoises have been documented in the region; although, no tortoises have been recently documented in the immediate area (CNDDB, 2018). A site habitat assessment was performed April 10, 2018 to determine if the site supports suitable habitat for the desert tortoise, and it is the opinion of RCA Associates, Inc. that the site does not support suitable habitat for the species. This conclusion is based on no tortoises or any potential tortoise burrows or tortoise sign (scats, etc.) being noted during the field investigations conducted on the site on April 10, 2018.

Mohave Ground Squirrel: Mohave ground squirrel populations have been documented in the region (CNDDB, 2018). This species is dependent upon undisturbed Mojave Desert scrub, Joshua tree woodlands, and chenopod scrub communities. Based on its behavior, the species is infrequently observed above ground except during a small window in the spring, but is should be noted that no Mohave ground squirrels were visually observed during the field investigations.

5.3 Jurisdictional Waters and Riparian Habitat

No riparian vegetation (e.g., cottonwoods, willows, etc.) exist on the site or in the adjacent habitats.

5.4 Protected Plants

The only protected plants which were observed on the site were Joshua trees which were scattered throughout the property. Due to the presence of Joshua trees on the property, a "protected plant plan" should be prepared prior to the issuance of any grading permits.

6.0 Impacts and Mitigation Measures

6.1 General Biological Resources

Future development of the site will impact the general biological resources present on the site, and most of the vegetation will likely be removed during construction activities. Wildlife on the site is fairly limited and future activities will generate minimal impacts on wildlife species known to occur in the area. Species with limited mobility (i.e., small mammals and reptiles) will experience some increases in mortality during the construction phase; although, more mobile species (i.e., birds, large mammals) will be displaced into adjacent areas and will experience negligible impacts. Loss of about 10.0-acres of desert vegetation will not have a significant impact on the overall biological resources in the region. As noted above, a "protected plant plan" should be prepared for the property prior to the issuance of any grading permits.

6.2 Federal and State Listed and Species of Special Concern

The site does not support suitable habitat for the desert tortoise; furthermore, no tortoises or tortoise sign (burrows, scat, etc.) were observed during the protocol surveys conducted as part of the field investigation. As noted in Section 5.2, no occupiable owl burrows were observed on the property, and no owls or owl sign were observed during the September 2018 surveys. As per CDFW protocol, the survey results are valid for only 30 days; therefore, CDFW may require a 30-day pre-construction survey be performed prior to any clearing/grading activities to determine if owls have moved on to the site since the April 10, 2018 surveys.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Future development activities will result in the removal of approximately 10.0-acres of desert scrub vegetation, and development of the site is not expected to have a significant cumulative impact on the general biological resources in the region. In addition, development of the site is not expected to have an impact on State or Federal listed wildlife species, including the desert tortoise or Mohave ground squirrel, nor will any special status wildlife species be impacted. If any special status species are observed on the property during future development activities, CDFW and USFWS (as applicable) should be contacted to discuss specific mitigation measures which may be required for the individual species. CDFW and USFWS are the only agencies which can grant authorization for the "take" of any special status species. As noted above, a "protected plant plan" should be prepared for the property prior to the issuance of any grading permits.

8.0 BIBLIOGRAPHY

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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. 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: 04/10/2018 Signed: Parker Smith
Report Author

Field Work Performed By: Randall Arnold
Senior Biologist

Figure 1

Regional Vicinity Map

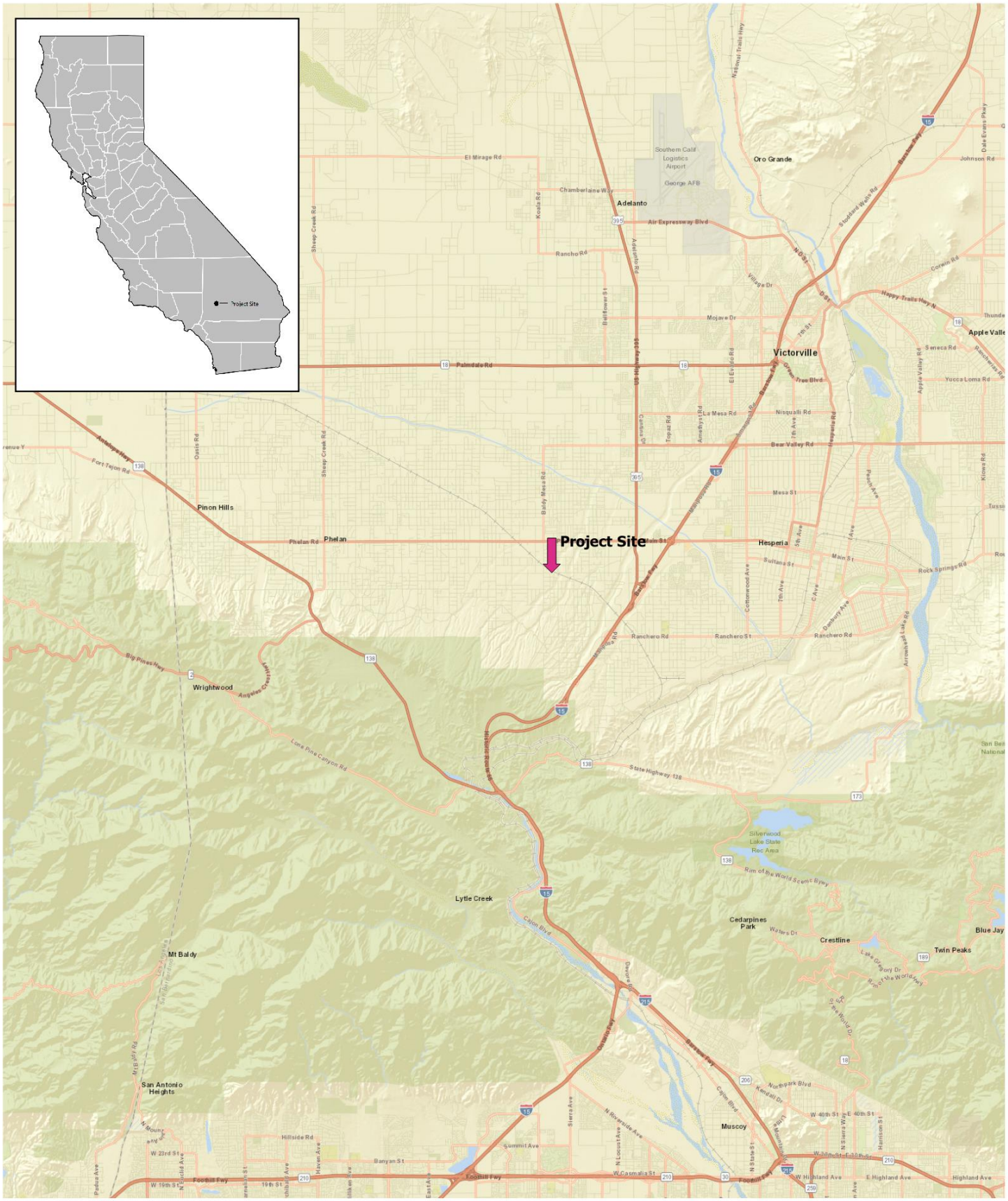
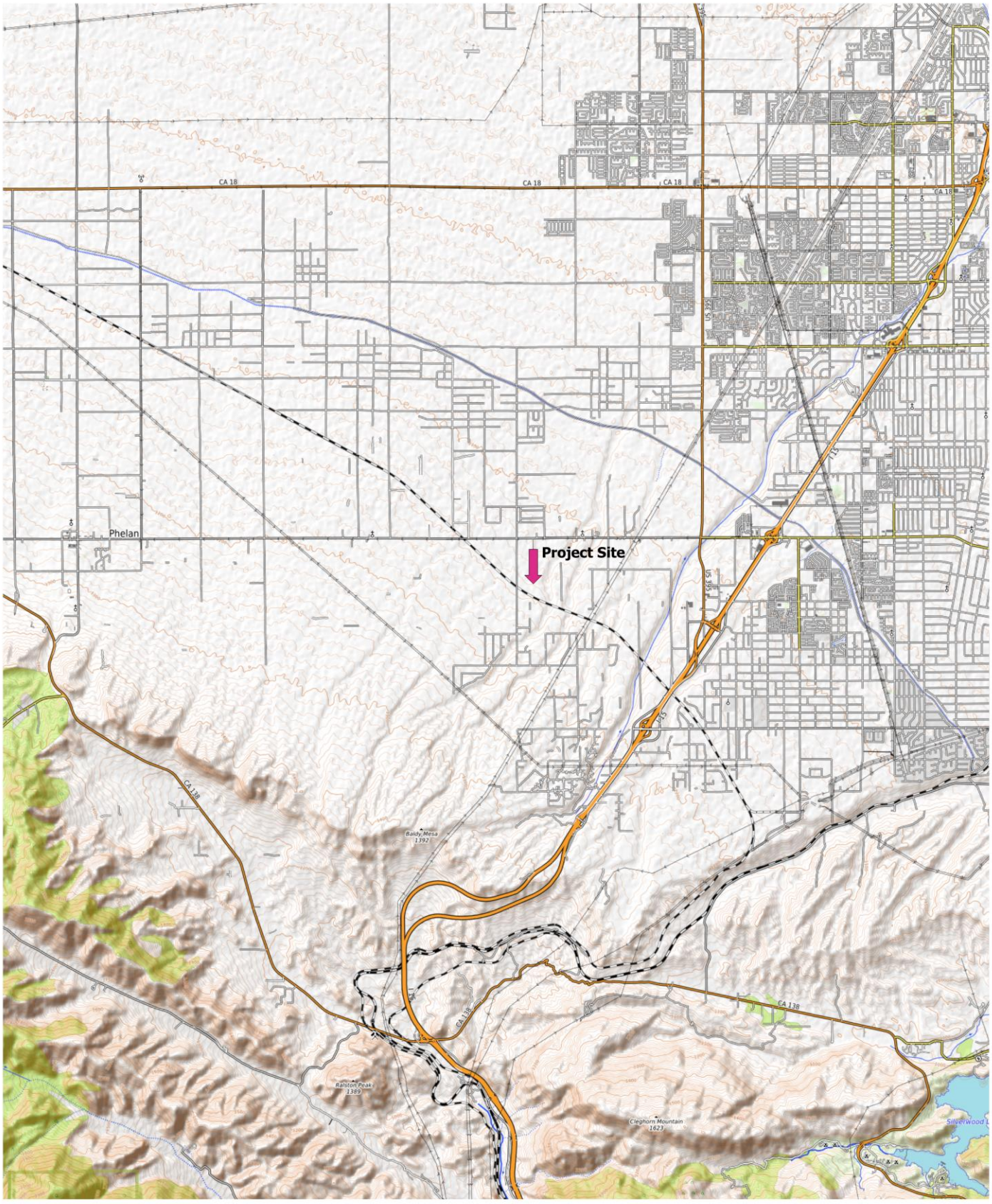


Figure 2

Local Topographic Map



2.5 0 2.5 5 7.5 10 km

N

RCA ASSOCIATES, INC

CENTER OF PROPERTY LOOKING NORTH

CENTER OF PROPERTY LOOKING EAST

FIGURE 3
SITE PHOTOGRAPHS
(SAN BERNARDINO COUNTY, CA)

CENTER OF PROPERTY LOOKING SOUTH

CENTER OF PROPERTY LOOKING WEST

FIGURE 3, cont.
SITE PHOTOGRAPHS
(SAN BERNARDINO COUNTY, CA)

Table 1 - Plants observed on the site and known to occur in the immediate surrounding area.

Common Name	Scientific Name	Location
California buckwheat	Eriogonum fasciculatum	On-site & surrounding area
Paperbag plant	*Salazaria Mexicana*	"
Sahara Mustard	Brassica tournefortii	"
Schismus	*Schismus barbatus*	"
Brome grass	*Bromus ps.*	"
Joshua tree	*Yucca brevifolia*	"
Ephedra	*Ephedra nevadansis*	"
Russian thistle	*Salsola tragus*	"

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

Common Name	Scientific Name	Location
Common raven	*Corvus corax*	On-site and in the surrounding area.
Sage sparrow	*Amphispiza belli*	"
Song sparrow	*Melospiza melodia*	"
Side-blotched lizard	*Uta stansburiana*	"
Western whiptail lizard	*Cnemidophorus tigris*	"
Desert spiny lizard	*Sceloporus magister*	"
Morning dove	*Zenaida macroura*	"
Gambel's quail	*Callipepla gambelii*	"
Antelope ground squirrel	*Ammospermophilus leucurus*	"
California ground squirrel	*Spermophilus beecheyi*	"
Desert cottontail Rabbit	*Sylvilagus auduboni*	"
Jackrabbit	*Lepus Californicus*	"
Coyotes	*Canis latrans*	"
Brewer's blackbird	*Euphagus cyanocephalus*	"

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, Inc.